

**APPENDIX I-10**  
*2012 Groundwater Monitoring Report*



February 8, 2013

Misty Kaltreider, PG, CEG  
Solano County  
Department of Resource Management  
675 Texas Street, Suite 5500  
Fairfield, CA 94533

**Re: Transmittal of Quarterly Groundwater Monitoring Report  
Leasehold Property, Former Flour Mill Facility  
800 Derr Street, Vallejo**

Dear Ms. Kaltreider:

Attached is the *Fourth Quarter 2012 Groundwater Monitoring Report, Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California, February 2013*. Malcolm Pirnie, Inc. submits the attached report on behalf of General Mills Operations, Inc. (General Mills) for your review, in accordance with the requirements set forth in Solano County Department of Resource Management's June 18, 2009 and April 13, 2012 letters to General Mills.

If you have questions or comments regarding the attached report, you may reach me by phone at (925) 296-7856 or by email at [todd.miller@arcadis-us.com](mailto:todd.miller@arcadis-us.com).

Sincerely,

**MALCOLM PIRNIE, INC.**



Todd Miller, CHG  
Project Manager

Attachment: Report

c: Larry Deeney, General Mills Operations, Inc.  
Steve England, City of Vallejo  
File (2626013/6400)



**General Mills Operations, Inc.**

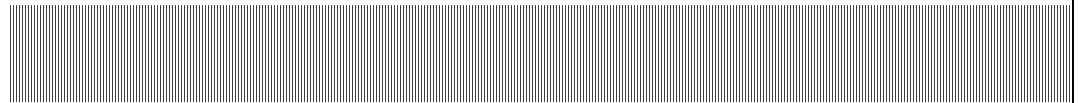
Number One General Mills Boulevard • Golden Valley, Minnesota

---

# Fourth Quarter 2012 Groundwater Monitoring Report

Leasehold Property  
Former Flour Mill Facility  
800 Derr Street, Vallejo, California

February 2013



Report Prepared By:

**Malcolm Pirnie, Inc.**

2000 Powell Street, 7<sup>th</sup> Floor  
Emeryville, California 94608  
(510) 652-4500

2626018

**MALCOLM  
PIRNIÉ**

---

## Contents

---

<b>1. Introduction</b>	<b>1-1</b>
1.1. Site History .....	1-1
1.2. Historical Groundwater Monitoring .....	1-2
<b>2. Field Activities and Methods</b>	<b>2-1</b>
2.1. Groundwater Sampling .....	2-1
2.2. Laboratory Analyses .....	2-2
2.3. Groundwater Sampling Derived Waste .....	2-2
2.4. Mare Island Strait Inspections.....	2-2
<b>3. Field and Laboratory Results</b>	<b>3-1</b>
3.1. Groundwater Flow.....	3-1
3.2. Field Observations .....	3-1
3.3. Field Groundwater Quality Measurement .....	3-1
3.4. Laboratory Results .....	3-2
3.4.1. TDS .....	3-2
3.4.2. TPH-G .....	3-2
3.4.3. TPH-D.....	3-2
3.4.4. TPH-MO .....	3-2
3.4.5. BTEX and VOCs .....	3-2
3.4.6. PAHs .....	3-3
<b>4. Discussion</b>	<b>4-1</b>
4.1. Groundwater Flow.....	4-1
4.2. Field Observations .....	4-1
4.3. Groundwater Quality Parameters .....	4-1
4.3.1. TDS and Temperature.....	4-1
4.3.2. DO .....	4-2
4.3.3. ORP.....	4-2
4.3.4. pH.....	4-2
4.4. Constituents of Concern .....	4-3
4.4.1. TPH-G .....	4-3
4.4.2. TPH-D.....	4-3
4.4.3. TPH-MO .....	4-3
4.4.4. BTEX and VOCs .....	4-3
4.4.5. PAHs .....	4-4
4.5. Summary.....	4-4

---

## List of Tables

---

Table 1	Groundwater Monitoring Well Construction Data
Table 2	Depth to Groundwater Measurements and Calculated Groundwater Elevation Data

---

Table 3	Field Groundwater Quality Measurements
Table 4	Groundwater Analytical Results Summary
Table 5	Comparison of TPH-D Results with and without Silica Gel Cleanup

## List of Figures

---

Figure 1	Site Location Map
Figure 2	Facility Plan, Monitoring Well Locations
Figure 3	Shallow Groundwater Surface Elevation Contour Map – December 2012
Figure 4	Detectable Constituents of Concern in Groundwater – December 2012
Figure 5	TPH-D Concentrations Versus Time

## Appendices

---

Appendix A	Field Activity Report
Appendix B	Analytical Laboratory Report

**SIGNATURE PAGE**

**FOURTH QUARTER 2012 GROUNDWATER MONITORING REPORT  
LEASEHOLD PROPERTY, FORMER FLOUR MILL FACILITY  
800 DERR STREET  
VALLEJO, CALIFORNIA**

**February 8, 2012**

Prepared by:

Reviewed by:



Todd Miller, CHG  
Associate Hydrogeologist  
MALCOLM PIRNIE, INC.  
2999 Oak Road, Suite 300  
Walnut Creek, California 94597



Waye Sheu, Ph.D.  
Vice President  
MALCOLM PIRNIE, INC.  
2800 W. Higgins Road, Suite 1000  
Hoffman Estates, Illinois 60169

# 1. Introduction

---

This Fourth Quarter 2012 Groundwater Monitoring Report (Report) was prepared on behalf of General Mills Operations, Inc. (General Mills) for the Leasehold Property portion of the Former Flour Mill Facility (Site) located at 800 Derr Street in Vallejo, California (Figure 1). This Report is being submitted per the requirements of Solano County Department of Resources Management (SCDRM) as set forth in their June 18, 2009 and April 13, 2012, letters to General Mills, as well as the SCDRM's approval of the groundwater monitoring program changes described in Malcolm Pirnie's June 25, 2012 letter. This Report presents the field and laboratory results collected on the Leasehold Property during December 2012, and provides a summary of the monitoring results over the past 5 years. As the September and December 2012 sampling results are consistent with the historic information, Malcolm Pirnie, on behalf of General Mills, is requesting that a No Further Action determination be made for the Site, and the SCDRM approve closure of the existing wells.

This section of the Report presents a brief historical summary of the Site and Leasehold Property. Section 2 describes the methods and procedures used to collect the groundwater samples on December 20, 2012; and Section 3 summarizes the field and laboratory results. Sample results from prior historical monitoring events are summarized in the tables included in this report. Section 4 provides conclusions based on the results of the most recent and historic groundwater monitoring events at the Leasehold Property.

## 1.1. Site History

The Former Flour Mill Facility is a 38-acre site located within an industrial area of Vallejo, California that was used as a flour processing mill between 1869 and 2004. The Site is located along the southeast side of Mare Island Strait, a tributary to the San Pablo Bay, which is the northern extent of the San Francisco Bay. The Leasehold Property is a 10-acre parcel within the larger 38-acre site. Figures 1 and 2 provide a Site Location Map and Facility Plan, respectively. Operations historically conducted on-Site included receiving (via ship and rail) and storing raw grain and cleaning, processing, bleaching, and packaging flour and other General Mills products. General Mills ceased operations in October 2004, in preparation for divestiture of the Site.

The City of Vallejo was granted title to the Leasehold Property under a legislative grant from the State Lands Commission, and acts on their behalf as the executor of the property. The City of Vallejo formerly leased the 10-acre parcel to General Mills under a long-term lease agreement. In June 2007, the City of Vallejo re-assigned the lease to



Brooks Street as part of the overall purchase agreement with General Mills for the Former Flour Mill Facility. Malcolm Pirnie understands that the City has now entered into a long-term lease agreement with Vortex Marine Construction. Future land use for the Leasehold Property is currently restricted by the legislative grant to commercial/industrial and activities associated with maritime commerce, as well as shoreline access by the general public (e.g., open space). No other uses are permitted.

## 1.2. Historical Groundwater Monitoring

Malcolm Pirnie submitted a Well Installation and Groundwater Monitoring Plan (GWMP) to SCDRM on June 15, 2007 per the requirements as set forth in SCDRM's April 16, 2007, and May 16, 2007 letters to General Mills. The purpose of the GWMP was to establish the procedures to assess and monitor shallow groundwater quality beneath the Leasehold Property following the completion of the soil remediation activities. The 2010 Closure Action Plan Addendum, submitted by Malcolm Pirnie on September 9, 2011 and approved by the SCDRM in a letter dated September 12, 2011, identified constituents of concern (COCs) as total petroleum hydrocarbons (TPH) as diesel fuel (TPH-D) and motor oil (TPH-MO) and polycyclic aromatic hydrocarbons (PAHs), eliminating a number of analytes previously considered potential COCs (see Section 2.2). Water quality is to be evaluated relative to nuisance conditions (i.e. presence of sheen or free product) for petroleum products and relative to Site-specific screening levels (SSLs) previously developed for the leasehold property for PAHs.

Malcolm Pirnie implemented the GWMP in July 2007, and submitted the Well Installation and Third Quarter 2007 Groundwater Monitoring Report to the SCDRM on October 10, 2007. Since that time Malcolm Pirnie, on behalf of General Mills, has conducted 15 groundwater monitoring events at the Leasehold Property and the results are presented in this report as well as reports previously submitted to the SCDRM. The December 2012 sampling results indicate that the Site meets the verification monitoring requirements presented in 2010 Corrective Action Plan Addendum, dated September 9, 2011, and approved by the SCDRM in their September 12, 2011 letter (i.e. no nuisance conditions). In addition, an evaluation of current Site conditions and Site-specific water quality data indicates that the Site meets the definition of a low-threat site, in accordance with the State Water Resources Control Board's Low-Threat UST Closure Policies (adopted May 1, 2012).

In accordance with the SCDRM's request in their April 13, 2012 letter, Malcolm Pirnie conducted a one-day high vacuum extraction (HiVac) event on well MP-6R on August 28, 2012. Malcolm Pirnie collected groundwater samples from wells MP-1R, MP-6R and EW-1 on September 27, 2012, in accordance with the revised sampling plan presented in our letter dated June 25, 2012. Malcolm Pirnie conducted a similar groundwater monitoring event on December 20, 2012.

## 2. Field Activities and Methods

---

The following sections summarize the methods and procedures followed during the implementation of the groundwater monitoring event at the Leasehold Property in December 2012 and additional field work conducted to verify an absence of nuisance conditions. Activities were conducted in accordance with the SCDRM-approved GWMP and subsequent addenda, as described above.

### 2.1. Groundwater Sampling

Environmental Sampling Services (ESS) collected depth-to-water measurements on December 20, 2012 from 16 shallow wells (monitoring wells MP-1R, MP-2, MP-6R, MP-8, MP-9, MP-10, MP-11, MP-12, MP-13A, MP-13B, and MP-14; and pilot test extraction wells EW-1, EW-2, EW-3, EW-4 and EW-5). Well locations are presented in Figure 2. ESS then purged and collected groundwater samples from three of the Site wells (MP-1R, MP-6R, and EW-1) using low-flow sampling methodology. Low-flow groundwater purging and sampling is a standard method for collecting groundwater samples that are representative of the formation from which they are being withdrawn. Low-flow groundwater sampling requires traditional groundwater sampling equipment in addition to a multi-parameter water quality monitoring system (e.g., Horiba U-22 or equivalent) equipped with a flow through cell; a turbidity meter; an adjustable rate, positive displacement, groundwater pump (a peristaltic pump was used at the Site) capable of achieving low-flow pumping rates (i.e., 100 to 500 milliliters per minute [ml/min]); polyethylene tubing or equivalent; a flow measurement device (a graduated container and stop watch were used at the Site); and a water level probe or oil/water interface probe.

Disposable or “single use” groundwater sampling equipment and personal protective equipment was discarded as municipal solid waste. Dedicated equipment (i.e., purge tubing) does not require decontamination. The decontamination procedure for non-disposable and non-dedicated low-flow groundwater sampling equipment included: (1) pre-rinsing – flushing the equipment thoroughly with distilled water for approximately five minutes; (2) washing – flushing equipment thoroughly with Alconox or other non-phosphate detergent solution for approximately five minutes; and (3) rinsing – flushing equipment thoroughly with distilled water for approximately five minutes or until the detergent has been removed from the equipment (whichever is longer).

Groundwater monitoring well construction information is summarized in Table 1 and depth-to-water measurements and calculated groundwater elevations are summarized in

Table 2. Water quality parameters (dissolved oxygen [DO], pH, temperature, oxidation-reduction potential [ORP], specific conductance [SC], and turbidity) monitored during purging are summarized in Table 3, and included in the field activity report in Appendix A. Field and laboratory results are summarized in Section 3.

## 2.2. Laboratory Analyses

ESS submitted the samples collected from the 3 groundwater monitoring wells (EW-1, MP-1R and MP-6R) to Curtis & Tompkins, Ltd., a California-certified analytical laboratory located in Berkeley, CA, for analysis. Laboratory analyses performed on the samples collected included:

- TPH as gasoline (TPH-G) using USEPA Method 8015B.
- TPH-D and TPH-MO using USEPA Method 8015B. Samples were analyzed both prior to and following silica gel cleanup (USEPA Method 3630C). The silica gel cleanup method was requested to evaluate the occurrence of petroleum biodegradation as well as compared the results to historical data.
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and other volatile organic compounds (VOCs) using USEPA Method 8260.
- PAHs using USEPA Method 8270C-SIM.
- Total dissolved solids (TDS) using Standard Method SM2540C, which is equivalent to the USEPA Method 160.1.

Analysis of TPH-G and VOCs, including BTEX was discontinued beginning in December 2011 in accordance with the 2010 Closure Action Plan Addendum dated September 9, 2011, as approved by SCDRM in a September 12, 2011 letter. However, at the request of the SCDRM (telephone conversation June 26, 2012), the sample collected from MP-1R was analyzed for BTEX and VOCs; and the samples collected from MP-6R and EW-1 were analyzed for TPH-G. Laboratory results are presented in Section 3.

## 2.3. Groundwater Sampling Derived Waste

Decontamination and purge water were discharged to an on-Site sanitary sewer system under a temporary industrial discharge permit issued by the Vallejo Sanitation and Flood Control District.

## 2.4. Mare Island Strait Inspections

Inspections of the Site shoreline downgradient of, and cross-gradient to, the remediation area were conducted by ESS on December 20, 2012, to verify that a petroleum hydrocarbon sheen was not visible on the water surface.

## 3. Field and Laboratory Results

---

This section summarizes the field and laboratory results from the groundwater monitoring event. The field activity report and certified laboratory report from the December 2012 monitoring event are included as Appendices A and B, respectively.

### 3.1. Groundwater Flow

Depth-to-water measurements and calculated groundwater elevations collected from Leasehold Property wells since January 2006 are summarized in Table 2. In December 2012, shallow groundwater beneath the Leasehold Property was measured at elevations ranging from 5.06 feet above mean sea level (amsl) to 7.02 feet amsl.

Based on the depth-to-water measurements and calculated shallow groundwater surface elevations (Table 2), the groundwater flow direction beneath the Leasehold Property was assessed to be to the south to southwest. A shallow groundwater elevation contour map for the monitoring event is included as Figure 3.

### 3.2. Field Observations

Field staff noted a sulfide odor emanating from the water purged from well MP-1R, and suspended orange organic material was noted in water purged from well EW-1. No indications of a sheen or hydrocarbon odor were noted in wells MP-1R, EW-1 or MP-1R.

No evidence of a petroleum hydrocarbon sheen was observed on the surface of the water next to the shoreline at any time.

### 3.3. Field Groundwater Quality Measurement

Field water quality measurements collected during the December 2012 sampling event, as well as previous sampling events, are summarized in Table 3. The following summarizes the results of the field measurement collected from the monitoring wells in December 2012.

- DO was measured at concentrations ranging from 0.32 milligrams per liter (mg/L) to 1.25 mg/L.
- Purged groundwater was relatively neutral, with measurements ranging from pH 6.40 to pH 7.34.
- Temperature of the purged water varied from 19.46 degrees Celsius (°C) to 20.10 °C.
- ORP measurements ranged from -372.8 millivolts (mV) to 28.2 mV.

- SC was measured above 2,500 microSiemens ( $\mu\text{S}/\text{cm}$ ) in two of the three wells (MP-1R and MP-6R).

### 3.4. Laboratory Results

Laboratory results of the groundwater samples collected from Site monitoring wells since 2006 are summarized in Table 4. The following briefly summarizes the laboratory results for samples collected during the December 2012 monitoring event. Concentrations of detectable constituents of concern for the December 2012 sampling are illustrated on Figure 4.

#### 3.4.1. TDS

TDS concentrations were 1,040/1,060 mg/L and 3,870 mg/L, respectively for wells (MP-6R and EW-1) in the Inland Groundwater Zone and 10,800 mg/L for well MP-1R in the Buffer Zone.

#### 3.4.2. TPH-G

Hydrocarbons in the TPH-G range were not reported above the laboratory method reporting limit (MRL) of 50  $\mu\text{g}/\text{L}$  in the samples collected from wells MP-6R or EW-1. The sample collected from well MP-1R was not analyzed for TPH-G.

#### 3.4.3. TPH-D

Hydrocarbons in the TPH-D range were reported in the sample collected from well MP-6R at a concentration of 290  $\mu\text{g}/\text{L}$  when using the silica gel cleanup method (Table 4). TPH-D results for samples collected from wells MP-1R and EW-1 are below the laboratory MRL when using silica gel cleanup method. This result is below the SSL of 2,500  $\mu\text{g}/\text{L}$ . Concentrations were reported to range from 460  $\mu\text{g}/\text{L}$  to 4,100  $\mu\text{g}/\text{L}$  when the silica gel cleanup method was not used (Table 5). The laboratory reported that the chromatogram resulting from pre-cleanup analysis of the MP-1R, MP-6R and EW-1 samples did not match the laboratory standard.

#### 3.4.4. TPH-MO

After using the silica gel cleanup method, hydrocarbons in the TPH-MO range were not reported above the MRL of 290  $\mu\text{g}/\text{L}$  in the samples collected from wells MP-1R, MP-6R and EW-1.

#### 3.4.5. BTEX and VOCs

One VOC, cis-1,2-dichloroethene (cis-1,2-DCE) was reported in well MP-1R at a concentration of 1.0  $\mu\text{g}/\text{L}$ , which is less than its SSL of 590  $\mu\text{g}/\text{L}$  and is consistent with historical results for this well.

### 3.4.6. PAHs

Select PAHs were reported above their respective MRLs but below their respective Buffer Zone SSLs in the sample collected from well MP-1R, and below their respective Inland Groundwater Zone SSLs in the samples collected from wells MP-6R. PAH concentrations were not reported above their respective MRL in the sample collected from EW-1. Reported concentrations are summarized in Table 4 and include:

- Naphthalene at concentrations of 0.2 and 0.1 µg/L in the samples collected from MP-1R and MP-6R, respectively. The Buffer Zone and the Inland Groundwater Zone SSL for naphthalene is 24 µg/L.
- Acenaphthylene at a concentration of 0.09 µg/L in the sample collected from MP-1R and at a concentration of 0.2 in the sample collected from MP-6R. The Buffer Zone and the Inland Groundwater Zone SSL for acenaphthylene is 30 µg/L.
- Acenaphthene at a concentration of 4.0 and 0.7 µg/L in the samples collected from MP-1R and MP-6R, respectively. The Buffer Zone and the Inland Groundwater Zone SSL for acenaphthene is 23 µg/L.
- Fluorene at concentrations of 0.09 and 1.1 µg/L in the samples collected from MP-1R and MP-6R, respectively. The Buffer Zone SSL is 3.9 µg/L and the Inland Groundwater Zone SSL is 950 µg/L.
- Phenanthrene at a concentration of 0.1 µg/L in the sample collected from MP-6R. The Inland Groundwater Zone SSL is 410 µg/L.
- Anthracene at concentrations of 0.2 µg/L and 0.4 µg/L in the samples collected from MP-1R and MP-6R, respectively. The SSL for anthracene in both the Inland Groundwater Zone and the Buffer Zone is 0.73 µg/L.
- Fluoranthene at concentrations of 0.3 and 0.1 µg/L from MP-1R and MP-6R, respectively. The Buffer Zone and the Inland Groundwater Zone SSL is 8.0 µg/L.
- Pyrene at a concentration of 0.2 µg/L in the samples collected from well MP-1R and MP-6R. The Buffer Zone and the Inland Groundwater Zone SSL is 2.0 µg/L.

## 4. Discussion

---

In general, the December 2012 water quality results are within the ranges recorded over the past four years. In addition, Malcolm Pirnie provides the following assessments based on our evaluation of the field and laboratory data collected during recent and historic groundwater monitoring events conducted at the Leasehold Property.

### 4.1. Groundwater Flow

Groundwater flow beneath the Leasehold Property, as illustrated in Figure 3, is generally toward the south to southwest. This is consistent with historical groundwater flow during the winter months.

### 4.2. Field Observations

The presence of free product or an oily sheen was not observed in any of the wells at the Site during the field monitoring over the past two years. These observations indicate nuisance conditions are not present at the Site. Additionally, field staff noted a sulfur odor from the water purged from well MP-1R as well as, an orange organic material in the purge water from well EW-1. The presence of the odor and organic material is likely a byproduct produced during anaerobic degradation of the organic compounds.

### 4.3. Groundwater Quality Parameters

Groundwater quality parameters (TDS and field-measured parameters) in the Inland Groundwater and Buffer Zones appears to have remained relatively consistent over the past four years, with two exceptions: TDS in wells MP-6R and MP-12, which have shown fluctuations over the past several years; and an increase in the ORP readings collected from wells MP-1R, MP-9 and MP-10 during December 2011 relative to historical measurements.

#### 4.3.1. TDS and Temperature

TDS readings obtained from Leasehold Property samples collected since 2006 have ranged from 320 mg/L to 2,050 mg/L in Inland Groundwater wells with five exceptions:

- Well MP-6R. Historical TDS results have ranged in concentration from 1,080 mg/L to 2,050 mg/L. However, the TDS concentration of the samples collected in October 2009, December 2010, and December 2012 were 3,180 mg/L, 6,200 mg/L, and 3,870 mg/L, respectively.

- Well MP-12. In July 2007, the TDS concentration of the sample collected was 5,070 mg/L. Subsequent samples demonstrated that the TDS concentrations in this well ranged between 470 mg/L and 1,680 mg/L; however, in the sample collected in December 2011, the TDS concentration was 2,750 mg/L, above the typical historic range.

TDS readings obtained from Leasehold Property samples collected since 2006 have ranged from 4,660 mg/L to 18,800 mg/L in Buffer Zone wells with three exceptions:

- Well MP-8. Historical TDS concentrations in the samples collected from well MP-8 ranged from 7,900 mg/L to 18,800 mg/L. However, samples collected in March and April 2006 had TDS concentrations of 2,970 mg/L and 1,940 mg/L, respectively.
- Well MP-13A. In June 2011, the TDS concentration in the sample collected was 3,820 mg/L, lower than the values typically observed for this well.

The TDS concentrations in samples collected in December 2012 were within historic ranges for their respective wells with the exception of MP-6R, which was slightly above its historical range with a TDS concentration of 3,870 mg/L.

The temperature of purged groundwater from the three wells sampled in December 2012 was within the historical range. Higher temperatures are generally observed during summer and fall months, while lower temperatures are observed during winter and spring months.

#### **4.3.2. DO**

The DO measured in purged groundwater during the December 2012 monitoring event is within the historic range for the wells sampled. The measured DO indicates that the groundwater beneath the Site is under anaerobic conditions for wells MP-1R and MP-6R (DO below 1 mg/L) and slightly aerobic for well EW-1 (DO of 1.25 mg/L).

#### **4.3.3. ORP**

The ORP measured in purged groundwater in December 2012 indicates that the groundwater beneath the Site is under mildly to moderately reducing conditions. December 2012 ORP measurements are generally within the historical range for the wells sampled, with the exception of well EW-1, which was at 28.2 mV in December 2012, compared to historical readings of -55.0 and -124.9 mV (Table 3).

#### **4.3.4. pH**

Purged groundwater in December 2012 was relatively neutral, which is consistent with historical results.



## 4.4. Constituents of Concern

Laboratory results reported during the December 2012 groundwater monitoring event indicate that dissolved COCs detected beneath the Leasehold Property are generally stable or decreasing and below their respective SSLs.

### 4.4.1. TPH-G<sup>1</sup>

Hydrocarbons in the TPH-G range were not reported above the laboratory MRL in either of the two wells analyzed for these compounds (MP-6R and EW-1). The results are consistent with historic results.

### 4.4.2. TPH-D

Hydrocarbon concentrations in the TPH-D range were reported in one of the three wells sampled (MP-6R) at a concentration of 290 µg/L when analyzed using silica gel cleanup. The concentration in MP-6R represents a historical low and indicates that the long-term trend in well MP-6R is decreasing. Figure 5 illustrates TPH-D concentrations measured over time in the groundwater samples collected from wells MP-6R and MP-1R. The concentration trend in MP-1R appears to be stable at or near the MRL. The TPH-D concentration of the sample from EW-1 is below the MRL after silica gel cleanup, which is consistent with previous sampling event results. EW-1 is not included in Figure 5, as there have been no historical TPH-D detections following silica gel cleanup.

The silica gel cleanup method removes polar organic compounds which could potentially interfere with TPH-D analysis. TPH-D range hydrocarbons were reported in the three wells when samples were not filtered through silica gel (Table 5) which indicates that the hydrocarbon compounds contained in Site groundwater are polar. These polar compounds are likely naturally occurring or represent biodegradation byproducts.

### 4.4.3. TPH-MO

Hydrocarbon concentrations in the TPH-MO range were reported to be below the laboratory MRL in the three wells sampled during the monitoring period when analyzed using the silica gel cleanup method. This is consistent with historical results.

### 4.4.4. BTEX and VOCs<sup>2</sup>

The concentration of cis-1,2-DCE in the sample collected from well MP-1R is within the historical range of concentrations reported from that well, and is well below the SSL of 590 µg/L for buffer zone groundwater.

---

<sup>1</sup> TPH-G is no longer considered a COC for the Site.

<sup>2</sup> BTEX and VOCs are no longer considered COCs for the Site.

#### 4.4.5. PAHs

PAH concentrations, including known or suspected carcinogenic compounds, did not exceed their respective SSLs in the three wells sampled (MP-1R, MP-6R, and EW-1) during the monitoring period. These results are consistent with historical observations.

#### 4.5. Summary

Since completion of the on-Site remedial actions in June 2007, concentrations of PAHs in groundwater have been stable and/or decreasing and have been consistently detected at or below their respective SSLs. Concentrations of TPH-D and TPH-MO have also been stable or decreasing during that same time interval. Although a thin layer of free-phase product was noted in MP-6R in early 2009, after removing the product from MP-6R, on-Site wells have not contained measurable free-phase product since. A petroleum sheen has not been observed in Mare Island Strait adjacent to the Site.

The field monitoring results collected from the past three years and the recent high vacuum extraction pilot tests demonstrate that nuisance conditions are not present at the Site, free product is not present in the 16 on-Site wells, residual petroleum hydrocarbons outside the former excavation area are limited in mass and not mobile, and dissolved PAH concentrations are below their respective SSLs.

The above field and laboratory results indicate that the Site meets the verification monitoring requirements presented in 2010 Corrective Action Plan Addendum, dated September 9, 2011, and approved by the SCDRM in their September 12, 2011 letter (i.e. no nuisance conditions). In addition, an evaluation of current Site conditions and Site-specific water quality data indicates that the Site meets the definition of a low-threat site, in accordance with the State Water Resources Control Board's Low-Threat UST Closure Policies (adopted May 1, 2012).

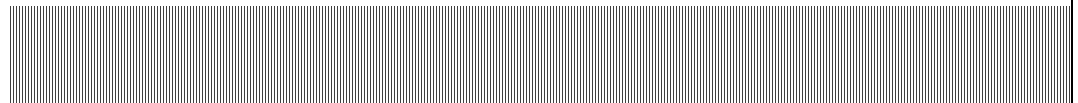
As the December 2012 sampling results are consistent with historic results, Malcolm Pirnie, on behalf of General Mills, requests that a No Further Action determination be made for the site. General Mills has submitted a Site Management Plan for review by the SCDRM, and is currently working to develop draft deed restrictions for the Leasehold Property for SCDRM's review. Once the above two items have approved by the SCDRM, the on-site wells will be properly destroyed.



**General Mills Operations, Inc.**  
Fourth Quarter 2012 Groundwater Monitoring Report  
Leasehold Property, Former Flour Mill Facility  
800 Derr Street, Vallejo, California

---

## Tables



**Table 1**  
**Groundwater Monitoring Well Construction Data**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Date Installed	Total Depth (ft bgs)	Casing Material	Casing Diameter (inches)	Screen Slot Size (inches)	Screen Interval (ft bgs)
MP-1R	7/23/2007	14.5	PVC SCH 40	2	0.010	4 - 13.5
MP-2	1/9/2006	15.5	PVC SCH 40	2	0.010	5.5 - 15
MP-6R	7/23/2007	14.5	PVC SCH 40	2	0.010	4.5 - 14
MP-8	2/3/2006	14.0	PVC SCH 40	2	0.010	4 - 13.5
MP-9	12/20/2006	13.5	PVC SCH 40	2	0.010	3.5 - 13
MP-10	12/20/2006	14.0	PVC SCH 40	2	0.010	4 - 13.5
MP-11	12/28/2006	14.5	PVC SCH 40	2	0.010	4.5 - 14
MP-12	7/23/2007	14.5	PVC SCH 40	2	0.010	4 - 13.5
MP-13A	7/24/2007	11.5	PVC SCH 40	2	0.010	4.5 - 11.5
MP-13B	7/24/2007	22.5	PVC SCH 40	2	0.010	17.5 - 22
MP-14	7/24/2007	14	PVC SCH 40	2	0.010	4 - 13.5
EW-1	10/28/2011	12.3	PVC SCH 40	4	0.020	5.0 - 12.0
EW-2	10/28/2011	11.9	PVC SCH 40	4	0.020	4.7 - 11.7
EW-3	10/28/2011	12.3	PVC SCH 40	4	0.020	5.1 - 12.1
EW-4	10/28/2011	11.8	PVC SCH 40	4	0.020	4.6 - 11.6
EW-5	10/28/2011	12.1	PVC SCH 40	4	0.020	4.8 - 11.8

**Notes:**

ft bgs = feet below ground surface

PVC SCH = polyvinyl chloride schedule

**Table 2**  
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**  
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Top of Casing Elevation (feet, msl)	Well Depth (feet)	Measurement Date	Depth to Groundwater (feet, bgs)	Groundwater Elevation (feet, msl)
MP-1R	10.34	13.70	7/30/2007	6.59	3.75
			11/15/2007	5.92	4.42
			2/20/2008	5.59	4.75
			5/27/2008	6.09	4.25
			11/24/2008	5.63	4.71
			2/24/2009	4.70	5.64
			5/7/2009	5.21	5.13
			12/21/2009	5.08	5.26
			6/29/2010	4.47	5.87
			12/28/2010	5.30	5.04
			6/28/2011	4.39	5.95
			12/12/2011	5.25	5.09
			6/27/2012	4.57	5.77
			9/27/2012	5.48	4.86
12/20/2012	4.96	5.38			
MP-2	10.53 10.83 <sup>1</sup>	15.41	1/12/2006	4.10	6.43
			2/9/2006	4.88	5.65
			3/14/2006	3.41	7.12
			4/13/2006	3.37	7.16
			8/3/2006	5.10	5.43
			7/30/2007	5.09	5.74
			11/15/2007	5.02	5.81
			2/20/2008	4.69	6.14
			5/27/2008	5.48	5.35
			11/24/2008	5.28	5.55
			2/24/2009	3.75	7.08
			5/7/2009	5.06	5.77
			12/21/2009	4.90	5.93
			6/29/2010	5.16	5.67
			12/28/2010	4.10	6.73
			6/28/2011	5.05	5.78
			12/12/2011	5.46	5.37
			6/27/2012	5.41	5.42
9/27/2012	5.59	5.24			
12/20/2012	4.75	6.08			
MP-6R	11.19	14.93	7/30/2007	5.11	6.08
			11/15/2007	4.65	6.54
			2/20/2008	4.54	6.65
			5/27/2008	5.59	5.60
			11/24/2008	5.22	5.97
			2/24/2009	4.38	6.81
			5/7/2009	4.97	6.22
			12/21/2009	4.43	6.76
			6/29/2010	4.78	6.41
			12/28/2010	3.83	7.36
			6/28/2011	4.90	6.29
			12/12/2011	5.37	5.82
			6/27/2012	5.33	5.86
			9/27/2012	5.81	5.38
12/20/2012	4.30	6.89			

**Table 2**  
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**  
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Top of Casing Elevation (feet, msl)	Well Depth (feet)	Measurement Date	Depth to Groundwater (feet, bgs)	Groundwater Elevation (feet, msl)
MP-8	10.71 10.90 <sup>1</sup>	13.75	2/9/2006	5.42	5.29
			3/14/2006	5.12	5.59
			4/13/2006	4.94	5.77
			8/3/2006	5.67	5.04
			12/29/2006	6.54	4.17
			7/30/2007	5.90	5.00
			11/15/2007	6.65	4.25
			2/20/2008	6.24	4.66
			5/27/2008	6.66	4.24
			11/24/2008	5.67	5.23
			2/24/2009	6.02	4.88
			5/7/2009	7.54	3.36
			12/21/2009	6.17	4.73
			6/29/2010	6.62	4.28
			12/28/2010	5.08	5.82
			6/28/2011	6.31	4.59
12/12/2011	6.55	4.35			
6/27/2012	6.49	4.41			
9/27/2012	6.80	4.10			
12/20/2012	5.41	5.49			
MP-9	9.81	13.38	12/29/2006	3.23	6.58
			7/30/2007	3.86	5.95
			11/15/2007	3.44	6.37
			2/20/2008	3.38	6.43
			5/27/2008	4.03	5.78
			11/24/2008	3.69	6.12
			2/24/2009	2.45	7.36
			5/7/2009	3.54	6.27
			12/21/2009	3.17	6.64
			6/29/2010	3.47	6.34
			12/28/2010	2.61	7.20
			6/28/2011	3.63	6.18
			12/12/2011	4.05	5.76
			6/27/2012	4.05	5.76
9/27/2012	4.51	5.30			
12/20/2012	3.08	6.73			
MP-10	11.05	14.41	12/29/2006	4.81	6.24
			7/30/2007	5.64	5.41
			11/15/2007	5.57	5.48
			2/20/2008	4.93	6.12
			5/27/2008	5.85	5.20
			11/24/2008	5.68	5.37
			2/24/2009	4.39	6.66
			5/7/2009	5.27	5.78
			12/21/2009	4.97	6.08
			6/29/2010	5.44	5.61
			12/28/2010	3.94	7.11
			6/28/2011	5.03	6.02
			12/12/2011	6.06	4.99
			6/27/2012	5.53	5.52
9/27/2012	6.31	4.74			
12/20/2012	4.40	6.65			
MP-11	11.87	14.40	12/29/2007	5.00	6.87
			7/30/2007	5.78	6.09
			11/15/2007	5.27	6.60
			2/20/2008	5.13	6.74
			5/27/2008	5.95	5.92
			11/24/2008	5.60	6.27
			2/24/2009	4.00	7.87
			5/7/2009	5.40	6.47
			12/21/2009	5.01	6.86
			6/29/2010	5.34	6.53
			12/28/2010	4.46	7.41
			6/28/2011	5.53	6.34
			12/12/2011	6.00	5.87
			6/27/2012	5.96	5.91
9/27/2012	6.45	5.42			
12/20/2012	4.85	7.02			

**Table 2**  
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**  
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Top of Casing Elevation (feet, msl)	Well Depth (feet)	Measurement Date	Depth to Groundwater (feet, bgs)	Groundwater Elevation (feet, msl)
MP-12	9.77	13.82	7/30/2007	4.49	5.28
			11/15/2007	1.11	8.66
			2/20/2008	0.54	9.23
			5/27/2008	4.71	5.06
			11/24/2008	4.52	5.25
			2/24/2009	0.50	9.27
			5/7/2009	2.93	6.84
			12/21/2009	0.59	9.18
			6/29/2010	4.47	5.30
			12/28/2010	-0.19 <sup>4</sup>	9.96
			6/28/2011	4.25	5.52
			12/12/2011	4.69	5.08
			6/27/2012	4.42	5.35
			9/27/2012	5.04	4.73
12/20/2012	3.05	6.72			
MP-13A	10.22	11.60	7/30/2007	6.31	3.91
			11/15/2007	5.86	4.36
			2/20/2008	5.56	4.66
			5/27/2008	5.89	4.33
			11/24/2008	5.16	5.06
			2/24/2009	5.41	4.81
			5/7/2009	6.84	3.38
			12/21/2009	5.36	4.86
			6/29/2010	5.39	4.83
			12/28/2010	4.43	5.79
			6/28/2011	5.64	4.58
			12/12/2011	5.77	4.45
			6/27/2012	5.83	4.39
			9/27/2012	5.66	4.56
12/20/2012	4.85	5.37			
MP-13B	10.17	22.24	7/30/2007	5.79	4.38
			11/15/2007	5.89	4.28
			2/20/2008	6.33	3.84
			5/27/2008	6.48	3.69
			2/24/2009	5.99	4.18
			5/7/2009	6.25	3.92
			12/21/2009	5.78	4.39
			6/29/2010	6.65	3.52
			12/28/2010	4.93	5.24
			6/28/2011	6.29	3.88
			12/12/2011	6.29	3.88
			6/27/2012	6.23	3.94
			9/27/2012	5.82	4.35
			12/20/2012	5.11	5.06
MP-14	10.32	13.57	7/30/2007	6.61	3.71
			11/15/2007	6.05	4.27
			2/20/2008	5.57	4.75
			5/27/2008	6.11	4.21
			11/24/2008	4.84	5.48
			2/24/2009	5.36	4.96
			5/7/2009	7.20	3.12
			12/21/2009	5.59	4.73
			6/29/2010	6.45	3.87
			12/28/2010	4.63	5.69
			6/28/2011	6.05	4.27
			12/12/2011	5.96	4.36
			6/27/2012	5.98	4.34
			9/27/2012	6.21	4.11
12/20/2012	4.95	5.37			

**Table 2**  
**Depth to Groundwater Measurements and Calculated Groundwater Elevation Data**  
**Fourth Quarter Groundwater Monitoring Report 2012, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Top of Casing Elevation (feet, msl)	Well Depth (feet)	Measurement Date	Depth to Groundwater (feet, bgs)	Groundwater Elevation (feet, msl)
EW-1	NM	12.3	6/27/2012	7.69	NA
			9/27/2012	8.16	NA
			12/20/2012	6.59	NA
EW-2	NM	11.9	6/27/2012	7.76	NA
			9/27/2012	8.24	NA
			12/20/2012	6.66	NA
EW-3	NM	12.3	6/27/2012	8.14	NA
			9/27/2012	8.63	NA
			12/20/2012	7.07	NA
EW-4	NM	11.8	6/27/2012	7.68	NA
			9/27/2012	8.13	NA
			12/20/2012	6.58	NA
EW-5	NM	12.1	6/27/2012	7.70	NA
			9/27/2012	8.17	NA
			12/20/2012	6.61	NA
				<b>Time<sup>2</sup></b>	<b>Tide Height<sup>3</sup> (feet MLLW)</b>
SMP	NA	NA	7/30/2007	11:12	-0.11 (flood)
				11:48	0.08 (flood)
			11/15/2007	09:30	3.05 (static)
				10:00	3.05 (flood)
			2/20/2008	09:54	4.99 (flood)
				10:24	5.41 (flood)
			5/27/2008	10:42	1.13 (ebb)
				13:42	6.84-5.13
			12/9/2008	11:12	1.54 (ebb)
	13:12	0.38 (ebb)			

<sup>1</sup> Top-of-casing was resurveyed on 8/14/2007

<sup>2</sup> Local tide times encompass monitoring well groundwater measurement sampling times

<sup>3</sup> Historic tide data for Mare Island Strait, California obtained at <http://tidesandcurrents.NOAA.gov>

<sup>4</sup> Artesian

bgs = below ground surface

MLLW = Mean Lower Low Water

msl = mean sea level

NA = Not Applicable

NM = Not Measured



**Table 3**  
**Field Groundwater Quality Measurements**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Measurement Sample Date	Dissolved Oxygen (mg/L)	pH	Temperature (°C)	Oxidation-Reduction Potential (mV)	Specific Conductivity (µS/cm)
MP-1R	7/30/2007	0.65	7.17	24.15	-74.6	15,711
	11/16/2007	0.54	7.38	22.02	-156.6	15,070
	2/21/2008	0.39	7.18	16.21	-96.5	18,277
	5/28/2008	0.90	6.61	20.28	-85.6	17,766
	11/24/2008	0.05	7.02	22.45	-96.6	14,935
	5/7/2009	0.21	6.93	20.78	-71.6	13,281
	12/21/2009	0.17	6.88	19.74	-143.6	15,677
	6/29/2010	0.32	7.11	22.41	-307.8	14,366
	12/28/2010	0.64	7.11	18.37	-21.2	17,684
	6/29/2011	0.32	7.55	19.79	-284.6	16,634
	12/13/2011	2.57	7.39	17.70	87.5	17,771
	6/27/2012	0.74	7.63	22.68	-358.1	16,633
	9/27/2012	0.96	7.20	23.26	-155.0	15,808
12/20/2012	0.84	7.26	19.50	-372.8	17,620	
MP-2	7/30/2007	0.31	8.15	23.07	-136.9	1,634
	11/16/2007	0.26	8.82	21.70	-192.3	1,369
	2/20/2008	0.33	8.12	19.00	118.0	1,556
	5/27/2008	0.50	7.99	20.90	-111.1	1,403
	12/21/2009	0.77	7.74	19.95	-63.3	1,434
	12/28/2010	1.38	8.72	19.45	-112.2	1,057
	12/12/2011	0.62	7.86	19.44	-79.6	1,846
MP-6R	7/30/2007	0.42	7.49	23.03	-139.8	2,461
	11/16/2007	0.47	8.22	22.12	-221.9	2,290
	2/21/2008	0.32	7.55	16.48	-125.1	2,570
	5/28/2008	0.39	6.93	20.46	-137.2	1,986
	11/24/2008	0.14	7.29	22.03	-95.3	1,926
	2/24/2009	0.57	7.31	17.91	-187.3	2,243
	5/7/2009	0.11	7.28	21.21	-195.2	1,920
	12/21/2009	0.25	7.22	19.22	-231.7	4,019
	6/29/2010	0.28	7.32	22.22	-305.7	3,210
	12/28/2010	0.63	8.39	18.26	-163.4	8,490
	6/29/2011	0.39	7.43	20.91	-300.6	3,588
	12/12/2011	0.70	7.46	20.32	-88.0	2,487
	6/27/2012	0.61	7.48	22.59	-269.7	4,699
9/27/2012	0.69	7.34	23.74	-132.3	2,129	
12/20/2012	0.32	7.34	20.10	-243.2	5,226	
MP-8	12/29/2006	0.45	7.41	17.20	-81.8	17,161
	7/30/2007	0.26	6.82	21.20	-84.6	21,084
	11/16/2007	0.48	7.72	20.34	-144.5	16,294
	2/20/2008	0.23	7.10	16.45	-64.1	19,807
	5/27/2008	0.37	6.90	19.76	-82.8	13,700
	12/21/2009	0.52	6.84	19.50	-8.0	27,829
	12/28/2010	1.52	7.93	16.89	-59.8	11,639
	12/12/2011	0.49	7.14	18.95	-74.9	15,087

**Table 3**  
**Field Groundwater Quality Measurements**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Measurement Sample Date	Dissolved Oxygen (mg/L)	pH	Temperature (°C)	Oxidation-Reduction Potential (mV)	Specific Conductivity (µS/cm)
MP-9	12/29/2006	0.30	7.00	18.57	-65.1	2,753
	7/30/2007	0.26	6.84	23.06	-117.9	2,539
	11/15/2007	0.16	7.03	21.72	-131.6	1,654
	2/20/2008	0.28	6.81	16.03	-81.1	1,754
	5/27/2008	0.81	6.34	20.71	-84.1	2,094
	12/21/2009	0.24	6.67	18.27	-113.4	1,711
	12/28/2010	0.87	6.71	17.65	-21.7	2,427
	12/12/2011	2.50	6.81	18.34	83.8	3,260
MP-10	12/29/2006	0.32	6.75	19.26	-20.2	3,179
	7/30/2007	0.15	6.14	24.16	-45.7	3,050
	11/16/2007	0.21	6.63	22.01	-144.0	2,849
	2/20/2008	0.30	6.61	17.31	-67.6	2,500
	5/27/2008	1.20	6.10	20.16	-24.2	3,022
	12/21/2009	0.33	6.53	19.70	-35.4	2,354
	12/28/2010	1.47	6.56	19.02	-14.4	2,493
	12/12/2011	1.94	6.70	19.40	99.9	3,235
MP-11	12/29/2006	3.87	7.69	17.69	42.6	680
	7/30/2007	0.34	7.14	22.73	-26.5	436
	11/16/2007	0.94	7.42	21.22	-30.2	496
	2/20/2008	0.50	7.13	17.91	69.4	716
	5/28/2008	0.34	6.80	19.97	-66.3	472
	12/21/2009	1.53	6.78	19.45	43.7	455
	12/28/2010	2.24	6.78	18.99	22.8	683
	12/12/2011	1.99	7.18	18.18	124.5	975
MP-12	7/30/2007	0.57	6.75	22.92	-29.1	7,986
	11/15/2007	0.30	7.83	18.49	-32.1	968
	2/21/2008	3.69	7.79	13.29	106.9	628
	5/27/2008	0.33	6.50	20.41	-56.4	2,231
	12/21/2009	0.30	6.88	17.19	-80.1	951
	12/28/2010	0.64	7.09	15.61	-19.2	605
	12/12/2011	2.23	6.86	17.55	70.5	4,865
	MP-13A	7/30/2007	0.28	7.19	22.18	-110.3
11/15/2007		0.35	7.29	21.39	-165.0	12,529
2/21/2008		0.32	7.04	16.66	-89.6	11,852
5/28/2008		1.52	6.54	19.47	-18.7	10,813
11/24/2008		0.15	7.12	21.88	-75.7	9,550
5/7/2009		0.11	7.53	19.37	-109.1	7,229
12/21/2009		0.40	7.06	18.07	-132.6	8,979
6/29/2010		0.45	7.12	21.71	-153.7	6,698
12/28/2010		0.71	8.07	16.98	-152.5	6,176
6/29/2011		0.64	7.16	18.99	104.2	6,896
12/12/2011		1.01	7.11	19.18	-86.3	7,693

**Table 3**  
**Field Groundwater Quality Measurements**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Measurement Sample Date	Dissolved Oxygen (mg/L)	pH	Temperature (°C)	Oxidation-Reduction Potential (mV)	Specific Conductivity (µS/cm)
MP-13B	7/30/2007	0.42	6.75	22.88	24.5	15,714
	11/15/2007	0.45	7.17	20.47	-183.8	14,799
	2/21/2008	0.46	6.73	15.89	-75.0	16,861
	5/28/2008	1.45	6.20	19.16	-85.2	16,735
	12/21/2009	0.43	6.60	18.99	-144.6	17,623
	12/28/2010	0.82	7.92	19.08	-149.6	16,695
	12/12/2011	1.21	6.69	19.07	-106.2	18,777
MP-14	7/30/2007	0.37	7.06	20.80	50.3	20,909
	11/15/2007	0.27	7.36	20.13	-126.9	18,951
	2/21/2008	0.51	7.06	14.33	91.0	17,559
	5/27/2008	0.79	6.48	17.98	60.5	17,070
	11/24/2008	0.14	6.81	20.78	62.7	16,028
	5/7/2009	0.18	6.86	17.79	21.2	11,620
	12/21/2009	0.24	6.76	18.96	-31.2	15,831
	6/29/2010	0.44	6.75	19.09	-123.5	14,102
	12/28/2010	0.79	6.80	17.90	8.1	17,607
	6/29/2011	0.82	6.99	17.33	92.1	14,116
	12/12/2011	1.48	7.00	17.88	108.6	14,756
EW-1	6/27/2012	1.50	6.63	21.28	-55.0	1,144
	9/27/2012	0.85	6.83	23.35	-124.9	1,008
	12/20/2012	1.25	6.40	19.46	28.2	1,323
SMP	8/1/2007	NA	7.73	19.30	NA	23,220
	11/16/2007	NA	7.64	15.38	NA	26,932
	2/21/2008	NA	7.90	11.24	NA	21,356
	5/27/2008	NA	7.70	17.46	NA	17,546

**Notes:**

mg/L = milligrams per liter

°C = degree Celsius

mV = millivolt

µS = microSiemens

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)																		
			TPH-G	TPH-D <sup>2</sup>	TPH-MO <sup>2</sup>	Benzene <sup>3</sup>	Toluene	Ethylbenzene	Total Xylenes	1,2-DCA	MTBE	EDB	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Acetone	Chloroform	para-Isopropyl Toluene		
<b>Inland Zone Groundwater Monitoring Wells</b>			SSL <sup>1</sup> (µg/L) Inland Groundwater	500	2,500	2,500	46	130	290	100	200	1,800	--	120	360	590	590	1,500	330	--	
MP-2	5.5-15.0	1/12/2006	<50	<50	<500	<0.5	2.1	<0.5	<1	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
		2/9/2006	<50	87 H	<300	<0.5	2.5	<0.5	<1	<0.5	--	<0.5	--	--	--	--	--	--	--	--	
		3/14/2006	<50	82 H	<300	<0.5	<0.5	<0.5	<1	<0.5	--	<0.5	--	--	--	--	--	--	--	--	
		4/13/2006	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	--	<0.5	--	--	--	--	--	--	--	--	
		8/3/2006	<50	54 H	--	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--	--	--	--	
		7/30/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5
		11/16/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5
		2/20/2008	96 H	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5
		5/27/2008	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/2009	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/2010	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MP-6R	4.5 - 14.0	7/31/2007	300 H	2500 H	660	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	11	0.5	0.5	
		11/16/2007	180 H	1,700	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/21/2008	250 H	1,100	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		5/28/2008	170 HJ	1,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		5/28/2008 duplicate	330 HJ	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		11/24/2008	210 Y	3100	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		2/24/2009	150 H	5200	320 Y	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		5/7/2009 <sup>9</sup>	120 Y	2400	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/21/2009	110 Y	2100	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/21/2009 duplicate	160 Y	1,600 Y	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		6/29/2010	110 Y	1400	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		6/29/2010 (no SGCU)	--	12000	2200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		6/29/10 duplicate	100 Y	640	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		6/29/10 duplicate (no SGCU)	--	4,200	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	130 Y	810	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		6/29/2011	<50	1,600 Y	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/12/2011	--	4,100	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/27/2012	110 Y	910	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
9/27/2012	<50	430	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
12/20/2012	<50	290	<290	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MP-9	3.5 - 13.0	12/29/2006	<50	680 H	570 H	<0.5	1.1	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--		
		7/31/2007	<50	560 H	630	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		11/15/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		11/15/2007 duplicate	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/20/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		5/27/2008	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/21/2009	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
12/12/2011 duplicate	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)																	
			TPH-G	TPH-D <sup>2</sup>	TPH-MO <sup>2</sup>	Benzene <sup>3</sup>	Toluene	Ethylbenzene	Total Xylenes	1,2-DCA	MTBE	EDB	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Acetone	Chloroform	para-Isopropyl Toluene	
MP-10	4.0 - 13.5	12/29/2006	<50	210 H	<300	<0.5	0.7	<0.5	0.7	--	--	--	--	--	--	--	--	--	--	
		7/30/2007	<50	170 H	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		11/16/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/20/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/20/2008 duplicate	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		5/27/2008	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/21/2009	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MP-11	4.5 - 14.0	12/29/2006	<50	54	<300	<0.5	0.51	<0.5	0.51	--	--	--	--	--	--	--	--	--	--	
		7/30/2007	<50	66 H	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		11/16/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/20/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		5/28/2008	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/21/2009	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MP-12	4.0 - 13.5	7/31/2007	<50	860 H	500	<0.5	0.6	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		11/15/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/21/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		5/27/2008	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/21/2009	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
EW-1	5.0 - 12.0	12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--		
		6/27/2012	<50	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--		
		6/27/2012 duplicate	<50	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--		
		9/27/2012	<50	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--		
		9/27/2012 duplicate	<50	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--		
		12/20/2012	<50	<49	<290	--	--	--	--	--	--	--	--	--	--	--	--	--		
12/20/12 duplicate	<50	<49	<290	--	--	--	--	--	--	--	--	--	--	--	--	--				
<b>Buffer Zone Groundwater Monitoring Wells</b>																				
<b>SSL<sup>1</sup> (µg/L) Buffer Zone Groundwater</b>			<b>500</b>	<b>640</b>	<b>640</b>	<b>46</b>	<b>130</b>	<b>290</b>	<b>100</b>	<b>200</b>	<b>1,800</b>	<b>--</b>	<b>120</b>	<b>360</b>	<b>590</b>	<b>590</b>	<b>1,500</b>	<b>330</b>	<b>--</b>	
MP-1R	4.0 - 13.5	7/31/2007	<50	1300 H	850	<0.5	<0.5	<0.5	<1	0.7	<0.5	<0.5	1.2	<0.5	0.7	<0.5	14.0	<0.5	0.7	
		11/16/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	0.9	<0.5	<0.5	<0.5	1.0	<0.5	<0.5	<10	<0.5	<0.5	
		2/21/2008	<50	42 H	<240	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<10	<0.5	<0.5	
		5/28/2008	--	<50	--	<0.5	<0.5	<0.5	<1	0.7	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<10	<0.5	<0.5	
		11/24/2008	--	<50	<300	<0.5	<0.5	<0.5	<1	0.6	<0.5	<0.5	<0.5	0.5	1.0	<0.5	<10	<0.5	<0.5	
		5/7/2009	--	67 Y	<300	<0.5	<0.5	<0.5	<1	0.7	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<10	<0.5	<0.5	
		12/21/2009	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<10	<0.5	<0.5	
		6/29/2010	--	71	<300	<0.5	<0.5	<0.5	<1	0.8	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<10	<0.5	<0.5	
		6/29/2010 (no SGCU)	--	5300	1100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<10	<0.5	<0.5	
		6/29/2011	--	70 Y	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<10	<0.5	<0.5	
		12/13/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/27/2012	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	<10	<0.5	<0.5			
9/27/2012	--	52	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<10	<0.5	<0.5			
12/20/2012	--	<49	<290	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	<10	<0.5	<0.5		

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)																		
			TPH-G	TPH-D <sup>2</sup>	TPH-MO <sup>2</sup>	Benzene <sup>3</sup>	Toluene	Ethylbenzene	Total Xylenes	1,2-DCA	MTBE	EDB	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Acetone	Chloroform	para-Isopropyl Toluene		
MP-8	4.0 - 13.5	2/9/2006	<50	320 H	460	<0.5	0.7	<0.5	0.7	<0.5	--	<0.5	--	--	--	--	--	--	--		
		3/14/2006	<50	280 H	390	<0.5	<0.5	<0.5	<1	<0.5	--	<0.5	--	--	--	--	--	--	--		
		4/13/2006	<50	180 H	<300	<0.5	<0.5	<0.5	<1	<0.5	--	<0.5	--	--	--	--	--	--	--		
		8/3/2006	--	150 H	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		12/29/2006	--	290 H	370 H	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		7/30/2007	<50	280 H	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		11/16/2007	<50	<50	<300	<0.5	0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		2/20/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		5/27/2008	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/21/2009	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/28/2010	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MP-13A	4.5 - 11.0	7/31/2007	61 H	15000 H	3,400	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.5	6.0	1.7	<10	<0.5	<0.5		
		7/31/2007 duplicate	65 H	14000 H	3,100	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	5.6	1.6	<10	<0.5	<0.5	
		8/13/2007 <sup>5</sup>	--	84 H	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		11/15/2007	<50	52 H	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	1.1	<10	<0.5	<0.5	
		2/21/2008	<50	150	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	0.7	<10	<0.5	<0.5	
		5/28/2008	--	<50	--	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<10	<0.5	<0.5	
		11/24/2008	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<10	<0.5	<0.5	
		5/7/2009	--	57 Y	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		12/21/2009	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		6/29/2010	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	
		6/29/2010 (no SGCU)	--	4400	740	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	--	60 Y	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	1.4	0.5	<10	<0.5	<0.5
		12/28/2010 duplicate	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	1.4	0.5	<10	<0.5	<0.5
6/29/2011	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5			
12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
MP-13B	17.5 - 22.0	7/31/2007	<50	690 H	500	<0.5	0.6	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5		
		11/15/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	--	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5		
		2/21/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5		
		5/28/2008	--	<50	--	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5		
		12/21/2009	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5		
		12/28/2010	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5		
12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
MP-14	4.0 - 13.0	7/31/2007	<50	540 H	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	7.3	3.5	7.2	<0.5	<10	<0.5	<0.5		
		11/15/2007	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	9.3	3.7	1.5	<0.5	<10	<0.5	<0.5		
		2/21/2008	<50	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.7	2.6	0.9	<0.5	<10	<0.5	<0.5		
		5/27/2008	--	<50	--	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.6	3.0	0.9	<0.5	<10	<0.5	<0.5		
		11/24/2008	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	6.5	4.1	1.6	<0.5	<10	<0.5	<0.5		
		5/7/2009	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.6	2.6	1.0	<0.5	<10	<0.5	<0.5		
		12/21/2009	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.0	2.6	0.9	<0.5	<10	<0.5	<0.5		
		6/29/2010	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.7	2.1	0.7	<0.5	<10	<0.5	<0.5		
		6/29/2010 (no SGCU)	--	850 Y	330	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
		12/28/2010	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.0	1.9	0.6	<0.5	<10	<0.5	<0.5		
		6/29/2011	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.1	1.4	0.6	<0.5	<10	<0.5	<0.5		
6/29/2011 duplicate	--	<50	<300	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.1	1.5	0.7	<0.5	<10	<0.5	<0.5				
12/12/2011	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--	--	--	--				

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)																
			TPH-G	TPH-D <sup>2</sup>	TPH-MO <sup>2</sup>	Benzene <sup>3</sup>	Toluene	Ethylbenzene	Total Xylenes	1,2-DCA	MTBE	EDB	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Acetone	Chloroform	para-Isopropyl Toluene
SMP	Strait	7/31/2007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		11/16/2007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		2/21/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		5/27/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)											Concentrations			
			Naphthalene <sup>4</sup>	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene	Chrysene	Benzo[a]pyrene	TDS (mg/L)	Other (µg/L)		
<b>Inland Zone Groundwater Monitoring Wells</b>																	
SSL <sup>1</sup> (µg/L) Inland Groundwater			24	30	23	950	410	0.73	8	2	5	0.35	1.9	3,000 <sup>6</sup>			
MP-2	5.5-15.0	1/12/2006	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	<2.1 UJ	--	--	
		2/9/2006	--	--	--	--	--	--	--	--	--	--	--	--	1,800	--	
		3/14/2006	--	--	--	--	--	--	--	--	--	--	--	--	620	--	
		4/13/2006	--	--	--	--	--	--	--	--	--	--	--	--	460	--	
		8/3/2006	--	--	--	--	--	--	--	--	--	--	--	--	1,050	--	
		7/30/2007	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.006	<0.1	<0.008	1,090	--
		11/16/2007	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	920	--
		2/20/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	870	--
		5/27/2008	--	--	--	--	--	--	--	--	--	--	--	--	--	1,100	--
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	930	--
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	720	--
		12/12/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	1,110 <sup>10</sup>	--
MP-6R	4.5 - 14.0	7/31/2007	2.5 <sup>7</sup>	0.4	1.6	3.4	0.9	0.2	0.2	0.1	0.03 J	<0.09	<0.03	1,580	--		
		11/16/2007	0.8 <sup>7</sup>	<0.09	1.5	3.0	0.4	<0.09	0.1	0.1	<0.03	<0.09	<0.02	1,410	sec-Butylbenzene 0.7 n-Butylbenzene 0.7		
		2/21/2008	<0.9	<0.9	2.1	4.8	1.5	<0.9	<0.9	<0.9	<0.2	<0.9	<0.2	1,510	--		
		5/28/2008	0.5	0.4	1.6	3.8	0.9	0.1	<0.1	0.1	<0.03	<0.1	<0.02	1,300	--		
		5/28/2008 duplicate	0.5	0.4	1.5	3.8	1.1	0.1	<0.1	0.1	<0.03	<0.1	<0.02	1,290	--		
		11/24/2008	0.4	0.4	1.4	3.1	0.9	0.2	0.2	0.1	0.03 J	<0.09	<0.09	1,310	--		
		2/24/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		5/7/2009 <sup>9</sup>	0.2	0.3	1.4	3.0	0.9	0.3	0.3	0.2	0.05 J	<0.09	0.02 J	1,080	--		
		12/21/2009	<1.0	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3,180	--	
		12/21/2009 duplicate	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3,200	--	
		6/29/2010	<0.09	<0.09	1.3	2.1	0.1	0.1	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	1,820	--	
		6/29/2010 (no SGCU)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		6/29/10 duplicate	<0.09	<0.09	1.2	2.1	0.1	0.2	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	1,790	--	
		6/29/10 duplicate (no SGCU)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	<0.09	<0.09	0.9	2.0	<0.09	0.3	<0.09	0.2	<0.09	<0.09	<0.09	<0.09	6,200	--	
		6/29/2011	<0.3	<0.3	0.9	0.9	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1,940	--	
12/12/2011	<0.1	<0.1	0.5	0.6	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	1,390 <sup>10</sup>	--			
6/27/2012	<0.09	0.2	0.4	0.7	<0.09	<0.09	<0.09	<0.09	0.3	<0.09	<0.09	<0.09	2,050	--			
9/27/2012	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	0.2	<0.09	0.1	<0.09	<0.09	<0.09	1,240 <sup>10</sup>	--			
12/20/2012	0.1	0.2	0.7	1.1	0.1	0.4	0.1	0.2	<0.09	<0.09	<0.09	<0.09	3,870 <sup>10</sup>	--			
MP-9	3.5 - 13.0	12/29/2006	<0.84	<0.91	<0.83	<0.85	<0.7	<0.63	<0.7	<0.76	<0.59	<0.66	<0.58	1,470	--		
		7/31/2007	0.4	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.03	1,230	--		
		11/15/2007	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.03	<0.1	<0.02	1,040	--		
		11/15/2007 duplicate	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	1,040	--		
		2/20/2008	0.2	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	1,010	--		
		5/27/2008	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.03	<0.1	<0.02	1,180	--		
		12/21/2009	<0.09	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,040	--	
		12/28/2010	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,100	--	
		12/12/2011	<0.09	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,280 <sup>10</sup>	--	
12/12/2011 duplicate	<0.09	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,260 <sup>10</sup>	--			



**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)											Concentrations		
			Naphthalene <sup>4</sup>	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene	Chrysene	Benzo[a]pyrene	TDS (mg/L)	Other (µg/L)	
MP-10	4.0 - 13.5	12/29/2006	--	--	--	--	--	--	--	--	--	--	--	--	1,570	--
		7/30/2007	0.3	<0.09	0.1	0.3	0.2	<0.09	0.1	0.1	<0.006	<0.09	<0.008	1,770	--	
		11/16/2007	<0.09	<0.09	0.2	0.3	<0.09	<0.09	0.1	<0.09	<0.03	<0.09	<0.02	1,850	--	
		2/20/2008	<0.09	<0.09	0.1	0.2	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	1,380	--	
		2/20/2008 duplicate	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.02	<0.1	<0.02	1,390	--	
		5/27/2008	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.03	<0.1	<0.02	1,650	--	
		12/21/2009	<0.09	<0.09	0.2	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,500	--	
		12/28/2010	<0.09	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,390	--	
MP-11	4.5 - 14.0	12/12/2011	<0.09	<0.09	0.2	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,660 <sup>10</sup>	--	
		12/29/2006	<0.85	<0.92	<0.84	<0.86	<0.7	<0.63	<0.71	<0.77	<0.59	<0.67	<0.59	440	--	
		7/30/2007	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.006	<0.1	<0.008	340	--	
		11/16/2007	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	380	--	
		2/20/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	330	--	
		5/28/2008	--	--	--	--	--	--	--	--	--	--	--	380	--	
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	320	--	
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	520	--	
MP-12	4.0 - 13.5	12/12/2011	--	--	--	--	--	--	--	--	--	--	--	610 <sup>10</sup>	--	
		7/31/2007	11 <sup>7</sup>	0.1	3.6	1	0.7	0.2	0.2	0.2	0.01 J	<0.1	<0.008	5,070	--	
		11/15/2007	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	850	--	
		2/21/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	470	--	
		5/27/2008	--	--	--	--	--	--	--	--	--	--	--	1,680	--	
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	710	--	
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	340	--	
EW-1	5.0 - 12.0	12/12/2011	--	--	--	--	--	--	--	--	--	--	--	2,750 <sup>10</sup>	--	
		6/27/2012	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	740	--	
		6/27/2012 duplicate	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	760	--	
		9/27/2012	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	660	--	
		9/27/2012 duplicate	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	660 <sup>10</sup>	--	
		12/20/2012	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,040 <sup>10</sup>	--	
<b>Buffer Zone Groundwater Monitoring Wells</b>																
<b>SSL<sup>1</sup> (µg/L) Buffer Zone Groundwater</b>			<b>24</b>	<b>30</b>	<b>23</b>	<b>3.9</b>	<b>4.6</b>	<b>0.73</b>	<b>8</b>	<b>2</b>	<b>0.027</b>	<b>0.35</b>	<b>0.014</b>	<b>3,000<sup>6</sup></b>		
MP-1R	4.0 - 13.5	7/31/2007	3.3 <sup>7</sup>	0.1	1.1	0.4	<0.1	0.1	0.5	0.4	0.4	0.02 J	<0.1	<0.03	10,500	--
		11/16/2007	1.4	0.1	5.2	3.6	4.7	0.5	0.6	0.4	<0.03	<0.09	<0.02	10,300	--	
		2/21/2008	0.9	<0.09	2.8	2.1	2.3	0.3	0.4	0.3	<0.02	<0.09	<0.02	10,500	--	
		5/28/2008	0.4	<0.1	3.0	1.9	1.2	0.2	0.3	0.3	<0.03	<0.1	<0.02	11,700	--	
		11/24/2008	0.37	0.1	4.9	0.9	0.4	0.3	0.6	0.3	<0.02	<0.1	<0.02	10,700	--	
		5/7/2009	0.6 <sup>8</sup>	<0.1	3.5	0.2	<0.1	0.1	0.3	0.3	<0.02	<0.1	<0.02	10,100	--	
		12/21/2009	0.5	<0.09	5.1	0.7	1.1	0.3	0.5	0.3	<0.09	<0.09	<0.09	10,900	--	
		6/29/2010	0.2	0.1	3.5	<0.09	<0.09	0.4	0.4	0.2	<0.09	<0.09	<0.09	10,000	--	
		6/29/2010 (no SGCU)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/2010	0.1	<0.09	2.6	0.4	1.1	0.3	0.6	0.4	<0.09	<0.09	<0.09	11,500	--	
		6/29/2011	<0.3	<0.3	4.4	<0.3	<0.3	0.4	0.5	0.3	<0.3	<0.3	<0.3	10,000	--	
		12/13/2011	0.2	<0.09	3.1	0.1	<0.09	0.1	0.4	0.3	<0.09	<0.09	<0.09	10,500 <sup>10</sup>	--	
6/27/2012	<0.09	0.1	3.7	<0.09	<0.09	0.4	0.5	0.3	<0.09	<0.09	<0.09	9,520	--			
9/27/2012	<2.0	0.2	4.2	0.1	<0.09	0.4	0.4	0.3	<0.09	<0.09	<0.09	9,020 <sup>10</sup>	--			
12/20/2012	0.2	0.09	4.0	0.09	<0.09	0.2	0.3	0.2	<0.09	<0.09	<0.09	10,800 <sup>10</sup>	--			

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)											Concentrations		
			Naphthalene <sup>4</sup>	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene	Chrysene	Benzo[a]pyrene	TDS (mg/L)	Other (µg/L)	
MP-8	4.0 - 13.5	2/9/2006	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	13,300	--
		3/14/2006	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2,970	--
		4/13/2006	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	1,940	--
		8/3/2006	--	--	--	--	--	--	--	--	--	--	--	--	8,830	--
		12/29/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		7/30/2007	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.006	<0.1	<0.008	14,400	--
		11/16/2007	1.8 <sup>7</sup>	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	12,900	--
		2/20/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	12,600	--
		5/27/2008	--	--	--	--	--	--	--	--	--	--	--	--	12,300	--
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	--	18,800	--
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	7,900	--
12/12/2011	--	--	--	--	--	--	--	--	--	--	--	--	9,280 <sup>10</sup>	--		
MP-13A	4.5 - 11.0	7/31/2007	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.9	<0.06	<0.9	<0.08	8,050	--	
		7/31/2007 duplicate	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.06	<1.0	<0.08	7,660	--	
		8/13/2007 <sup>5</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	
		11/15/2007	<0.09	<0.09	0.1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	8,920	--	
		2/21/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	7,230	--	
		5/28/2008	--	--	--	--	--	--	--	--	--	--	--	--	5,330	--
		11/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	6,510	--
		5/7/2009	--	--	--	--	--	--	--	--	--	--	--	--	5,540	--
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	--	5,200	--
		6/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	4,660	--
		6/29/2010 (no SGCU)	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	4,950	--
		12/28/2010 duplicate	--	--	--	--	--	--	--	--	--	--	--	--	5,090	--
6/29/2011	--	--	--	--	--	--	--	--	--	--	--	--	3,820	--		
12/12/2011	--	--	--	--	--	--	--	--	--	--	--	--	5,040 <sup>10</sup>	--		
MP-13B	17.5 - 22.0	7/31/2007	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.006	<0.1	<0.008	11,200	--	
		11/15/2007	0.6 <sup>7</sup>	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.03	<0.1	<0.02	11,200	--	
		2/21/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	10,100	--	
		5/28/2008	--	--	--	--	--	--	--	--	--	--	--	13,100	--	
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	10,800	--	
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	10,800	--	
12/12/2011	--	--	--	--	--	--	--	--	--	--	--	--	10,400 <sup>10</sup>	--		
MP-14	4.0 - 13.0	7/31/2007	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.006	<0.1	<0.008	14,400	--	
		11/15/2007	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.03	<0.09	<0.02	18,400	--	
		2/21/2008	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.02	<0.09	<0.02	11,200	--	
		5/27/2008	--	--	--	--	--	--	--	--	--	--	--	13,000	--	
		11/24/2008	--	--	--	--	--	--	--	--	--	--	--	11,900	--	
		5/7/2009	--	--	--	--	--	--	--	--	--	--	--	9,080	--	
		12/21/2009	--	--	--	--	--	--	--	--	--	--	--	11,700	--	
		6/29/2010	--	--	--	--	--	--	--	--	--	--	--	10,000	--	
		6/29/2010 (no SGCU)	--	--	--	--	--	--	--	--	--	--	--	--	--	
		12/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	11,900	--
		6/29/2011	--	--	--	--	--	--	--	--	--	--	--	--	8,160	--
6/29/2011 duplicate	--	--	--	--	--	--	--	--	--	--	--	--	8,280	--		
12/12/2011	--	--	--	--	--	--	--	--	--	--	--	--	8,960 <sup>10</sup>	--		

**Table 4**  
**Groundwater Analytical Results Summary**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**

Well ID	Screen Depth (feet btoc)	Sample Date	Concentrations (µg/L)										Concentrations		
			Naphthalene <sup>4</sup>	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo[a]anthracene	Chrysene	Benzo[a]pyrene	TDS (mg/L)	Other (µg/L)
SMP	Strait	7/31/2007	--	--	--	--	--	--	--	--	--	--	--	18,800	--
		11/16/2007	--	--	--	--	--	--	--	--	--	--	--	24,400	--
		2/21/2008	--	--	--	--	--	--	--	--	--	--	--	15,200	--
		5/27/2008	--	--	--	--	--	--	--	--	--	--	--	18,800	--

**Notes:**

<sup>1</sup> Site-specific screening levels (SSLs), as reported in the March 2007 *Human Health and Ecological Exposure Analysis, Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, CA.*

<sup>2</sup> Samples analyzed on and after 8/13/2007 included silica gel cleanup (USEPA Method 3630C) as a preparation method.

<sup>3</sup> Other VOCs listed under USEPA Method 8260 and not included in this summary table were reported by the laboratory to be below their respective analytical method reporting limits.

<sup>4</sup> Reported as USEPA Method 8270 result unless otherwise noted.

<sup>5</sup> Sample analyzed after silica gel cleanup (USEPA Method 3630C).

<sup>6</sup> Tier 1 ESL is used; a Site-specific ESL was not calculated for this compound.

<sup>7</sup> Reported as a lesser value or as non-detect by USEPA Method 8270. Reported at value listed by USEPA Method 8260.

<sup>8</sup> Laboratory reported naphthalene at 0.7 µg/L by US EPA method 8260B.

<sup>9</sup> Well was purged using low-flow and "standard" purge methods, as described in report. TPH-D concentration following standard purge method was 4,900 µg/L.

<sup>10</sup> Relative percent difference between batch spike and batch spike duplicate exceeded laboratory's acceptable range.

-- = Not analyzed

µg/L = micrograms per liter

mg/L = milligrams per liter

btoc = below top of casing

H = Hydrocarbon chromatographic pattern does not match standard

J = Estimated value

Y = Sample exhibits chromatographic pattern which does not resemble standard

TPH-G = Total Petroleum Hydrocarbons as Gasoline  
 TPH-D = Total Petroleum Hydrocarbons as Diesel Fuel  
 TPH-MO = Total Petroleum Hydrocarbons as Motor Oil  
 1,2-DCA = 1,2-Dichloroethane  
 MTBE = Methyl-tert-butyl ether  
 EDB = 1,2-Dibromoethane

PCE = Tetrachloroethene  
 TCE = Trichloroethene  
 cis-1,2-DCE = cis-1,2-Dichloroethene  
 trans-1,2-DCE = trans-1,2-Dichloroethene  
 TDS = Total Dissolved Solids

**Table 5**  
**Comparison of TPH-D Results with and without Silica Gel Cleanup**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Sample Date	Screen Depth (feet btoc)	Depth to Bay Mud (feet bgs)	Concentration (µg/L)	
				TPH (C10-C24) pre-filtering <sup>1</sup>	TPH (C10-C24) post-filtering <sup>2</sup>
<b>Inland Groundwater Screening Level<sup>3</sup> (µg/L)</b>				<b>2,500</b>	
MP-2	1/12/2006	5.5-15.0	>15	<50	--
	2/9/2006			87	--
	3/14/2006			82	--
	4/13/2006			<50	--
	8/3/2006			54	--
	7/30/2007			<50	--
	11/16/2007			--	<50
	2/20/2008			--	<50
	5/27/2008			--	<50
	12/21/2009			<50	<50
	12/28/2010			<50	<50
	12/12/2011			<50	<50
MP-6R	7/31/2007	4.5 - 14.0	13.5	2,500	--
	11/16/2007			1,700	--
	2/21/2008			--	1,100
	5/28/2008			--	1,500 / 1,200
	11/24/2008			--	3,100
	2/24/2009			--	5,200
	5/7/2009			--	2,400
	12/21/2009			20,000 / 19,000	2,100 / 1,600
	6/29/2010			12,000 / 4,200	1,400 / 640
	12/28/2010			13,000	810
	6/29/2011			10,000 Y	1,600 Y
	12/12/2011			7,800	4,100
	6/27/2012			5,300	910
	9/27/2012			2,400	430
	12/20/2012			4,100 Y	290
MP-9	12/29/2006	3.5 - 13.0	8.5	680	--
	7/31/2007			560	--
	11/15/2007			--	<50
	2/20/2008			--	<50
	5/27/2008			--	<50
	12/21/2009			500	<50
	12/28/2010			480	<50
	12/12/2011			780 Y / 650 Y	<50 / <50
MP-10	12/29/2006	4.0 - 13.5	14	210	--
	7/30/2007			170	--
	11/16/2007			--	<50
	2/20/2008			--	<50
	5/27/2008			--	<50
	12/21/2009			310	<50
	12/28/2010			310	<50
	12/12/2011			360 Y	<50
MP-11	12/29/2006	4.5 - 14.0	>15	54	--
	7/30/2007			66	--
	11/16/2007			--	<50
	2/20/2008			--	<50
	5/28/2008			--	<50
	12/21/2009			<50	<50
	12/28/2010			<50	<50
	12/12/2011			58 Y	<50

**Table 5**  
**Comparison of TPH-D Results with and without Silica Gel Cleanup**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Sample Date	Screen Depth (feet btoc)	Depth to Bay Mud (feet bgs)	Concentration (µg/L)				
				TPH (C10-C24) pre-filtering <sup>1</sup>	TPH (C10-C24) post-filtering <sup>2</sup>			
MP-12	7/31/2007	4.0 - 13.5	13.5	860	--			
	11/15/2007			--	<50			
	2/21/2008			--	<50			
	5/27/2008			--	<50			
	12/21/2009			910	<50			
	12/28/2010			520	<50			
	12/12/2011			1,300 Y	<50			
EW-1	6/27/2012	5.0 - 12.0	>15	480 Y	<50			
	9/27/2012			450	<50			
	12/20/2012			460 Y	<49			
<b>Buffer Zone Groundwater Screening Level<sup>3</sup> (µg/L)</b>				<b>640</b>				
MP-1R	7/31/2007	4.0 - 13.5	12	1,300 H	--			
	11/16/2007			--	<50			
	2/21/2008			--	42			
	5/28/2008			--	<50			
	11/24/2008			--	<50			
	5/7/2009			--	67			
	12/21/2009			720	<50			
	6/29/2010			5,300	71			
	12/28/2010			670	<50			
	6/29/2011			7,500 Y	70 Y			
	12/13/2011			1,500	<50			
	6/27/2012			5,700	<50			
	9/27/2012			4,100	52 Y			
	12/20/2012			1,900 Y	<49			
MP-8	2/9/2006	4.0 - 13.5	>15	320	--			
	3/14/2006			280	--			
	4/13/2006			180	--			
	8/3/2006			150	--			
	12/29/2006			290	--			
	7/30/2007			280	--			
	11/16/2007			--	<50			
	2/20/2008			--	<50			
	5/27/2008			--	<50			
	12/21/2009			100	<50			
	12/28/2010			59	<50			
	12/12/2011			190 Y	<50			
	MP-13A			7/31/2007	4.5 - 11.0	12	15,000 / 14,000	--
				8/13/2007			--	84
11/15/2007		--	52					
2/21/2008		--	150					
5/28/2008		--	<50					
11/24/2008		--	<50					
5/7/2009		--	57					
12/21/2009		4,300	<50					
6/29/2010		4,400	<50					
12/28/2010		4,600 / 5,400	60/<50					
6/29/2011		5,300 Y	<50					
12/12/2011		3,500 Y	<50					

**Table 5**  
**Comparison of TPH-D Results with and without Silica Gel Cleanup**  
**Fourth Quarter 2012 Groundwater Monitoring Report, January 2013**  
**Leasehold Property, Former Flour Mill Facility, 800 Derr Street, Vallejo, California**

Well ID	Sample Date	Screen Depth (feet btoc)	Depth to Bay Mud (feet bgs)	Concentration (µg/L)	
				TPH (C10-C24) pre-filtering <sup>1</sup>	TPH (C10-C24) post-filtering <sup>2</sup>
MP-13B	7/31/2007	17.5 - 22.0	12	690	--
	11/15/2007			--	<50
	2/21/2008			--	<50
	5/28/2008			--	<50
	12/21/2009			1,000	<50
	12/28/2010			760	<50
	12/12/2011			1,000 Y	<50
MP-14	7/31/2007	4.0 - 13.0	>15	540	--
	11/15/2007			--	<50
	2/21/2008			--	<50
	5/27/2008			--	<50
	11/24/2008			--	<50
	5/7/2009			--	<50
	12/21/2009			670	<50
	6/29/2010			850	<50
	12/28/2010			890	<50
	6/29/2011			510 Y / 520 Y	<50 / <50
	12/12/2011			790 Y	<50

Shaded values represent pre-excavation groundwater analytical results

Y = Sample exhibits chromatographic pattern which does not resemble standard

1 pre-filtering is before silica gel cleanup removes polar organic compounds

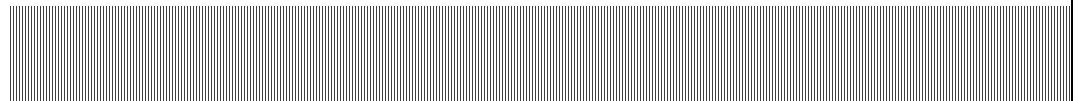
2 post-filtering is after silica gel cleanup removes polar organic compounds

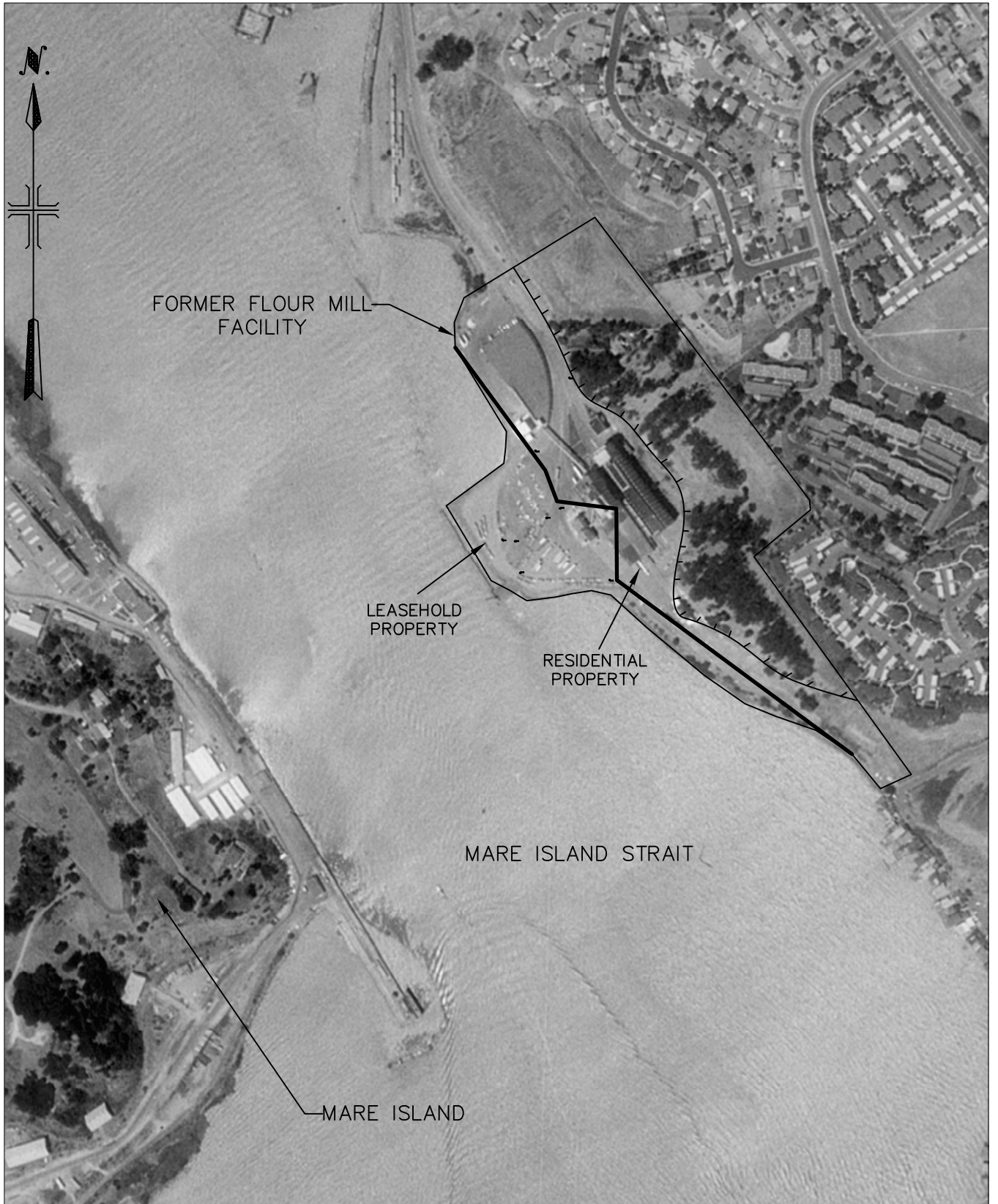


**General Mills Operations, Inc.**  
Fourth Quarter 2012 Groundwater Monitoring Report  
Leasehold Property, Former Flour Mill Facility  
800 Derr Street, Vallejo, California

---

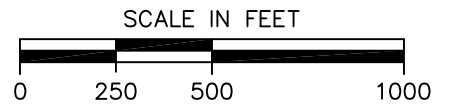
## Figures





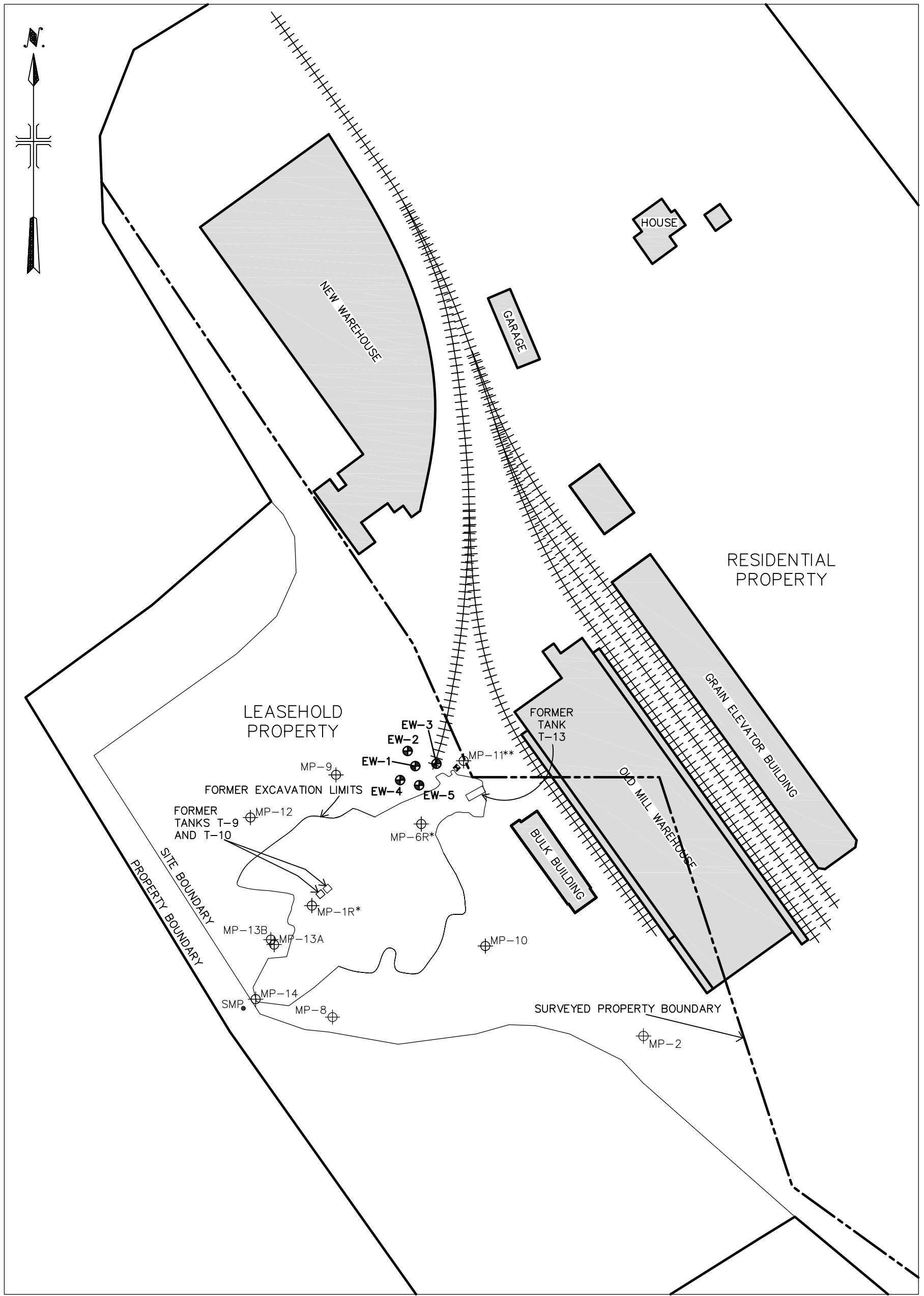
**NOTES**

AERIAL PHOTO FROM THE CALIFORNIA SPATIAL INFORMATION LIBRARY. CALIFORNIAL DIGITAL ORTHO (QUARTER) QUADS DOQQS (GEOTIFF FORMAT).  
 /- APPROXIMATE PROPERTY BOUNDARY  
 ▬ HILLSIDE





User: Orsi Spec: PIRNIE STANDARD File: G:\Projects\02626013\acad\4th Qtr 2012\FIGURE 2.DWG Scale: 1:1 Date: 02/08/2013 Time: 14:29 Layout: Layout1

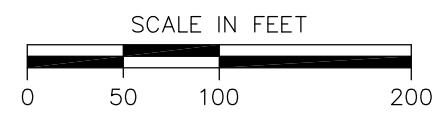


**LEGEND**

- MP-2 ⊕ MONITORING WELL - EXISTING
- EXTRACTION WELL
- ◆ SOIL BORING
- \*MP-1R AND MP-6R ARE REPLACEMENT WELLS FOR MP-1 AND MP-6, RESPECTIVELY, INSTALLED AT SAME LOCATION AS ORIGINAL WELLS.
- \*\*LITHOLOGIC DESCRIPTION AND SOIL ANALYTICAL SAMPLE FROM SOIL BORING MP-11. WELL MP-11 IS LOCATED APPROXIMATELY 10' NORTHEAST OF SOIL BORING MP-11.
- "SMP" IS STATIC MONITORING POINT

**NOTES**

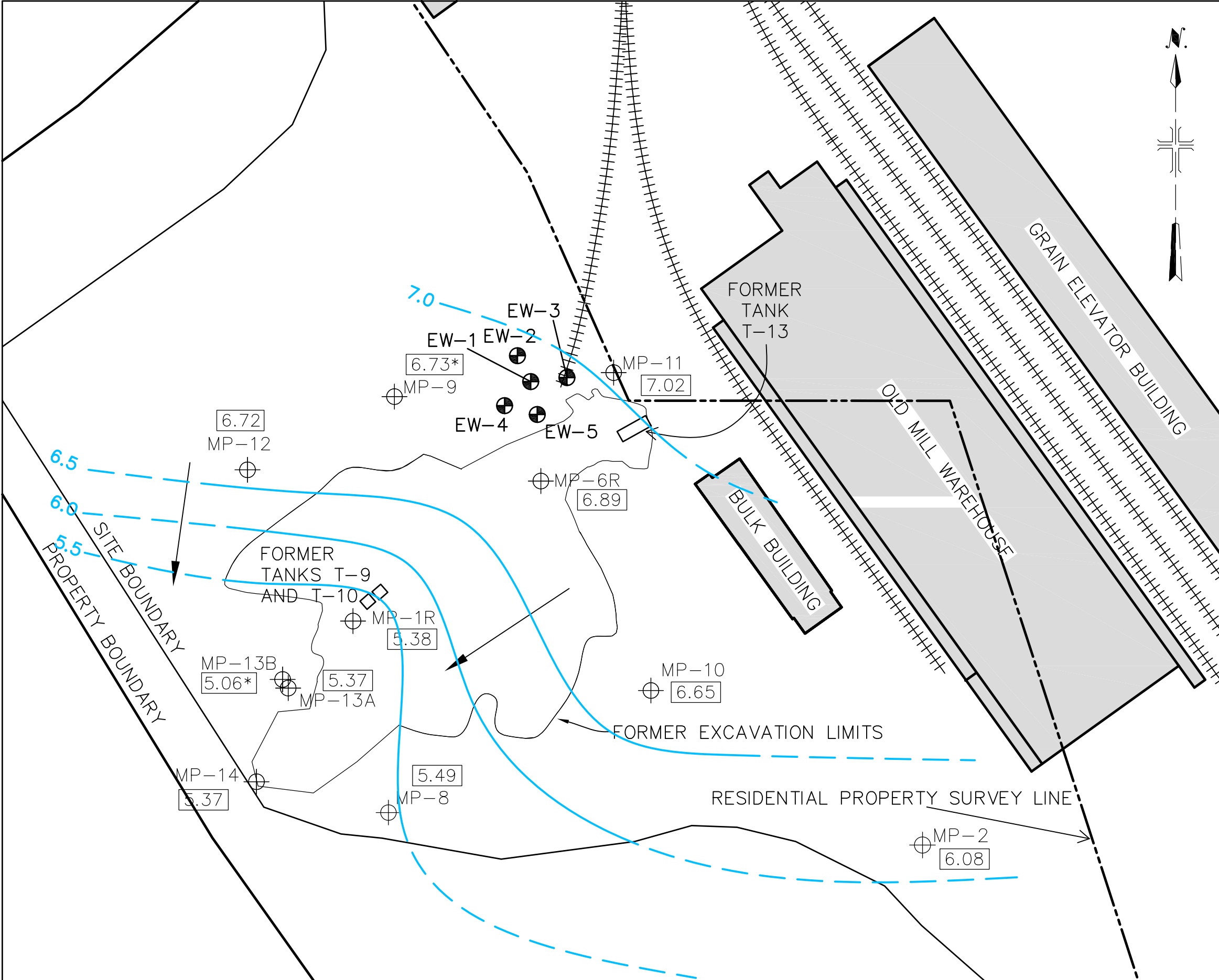
LOCATIONS OF EXCAVATION LIMITS, BUILDINGS, AND OTHER SITE FEATURES WERE SURVEYED BY STOCKINGER SURVEYS OR CSS; OR ARE BASED ON FIELD OBSERVATIONS.



800 DERR STREET  
VALLEJO, CA  
FORMER FLOUR MILL FACILITY

FACILITY PLAN  
MONITORING WELL LOCATIONS

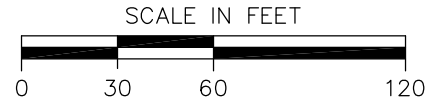
FEBRUARY 2013  
FIGURE 2

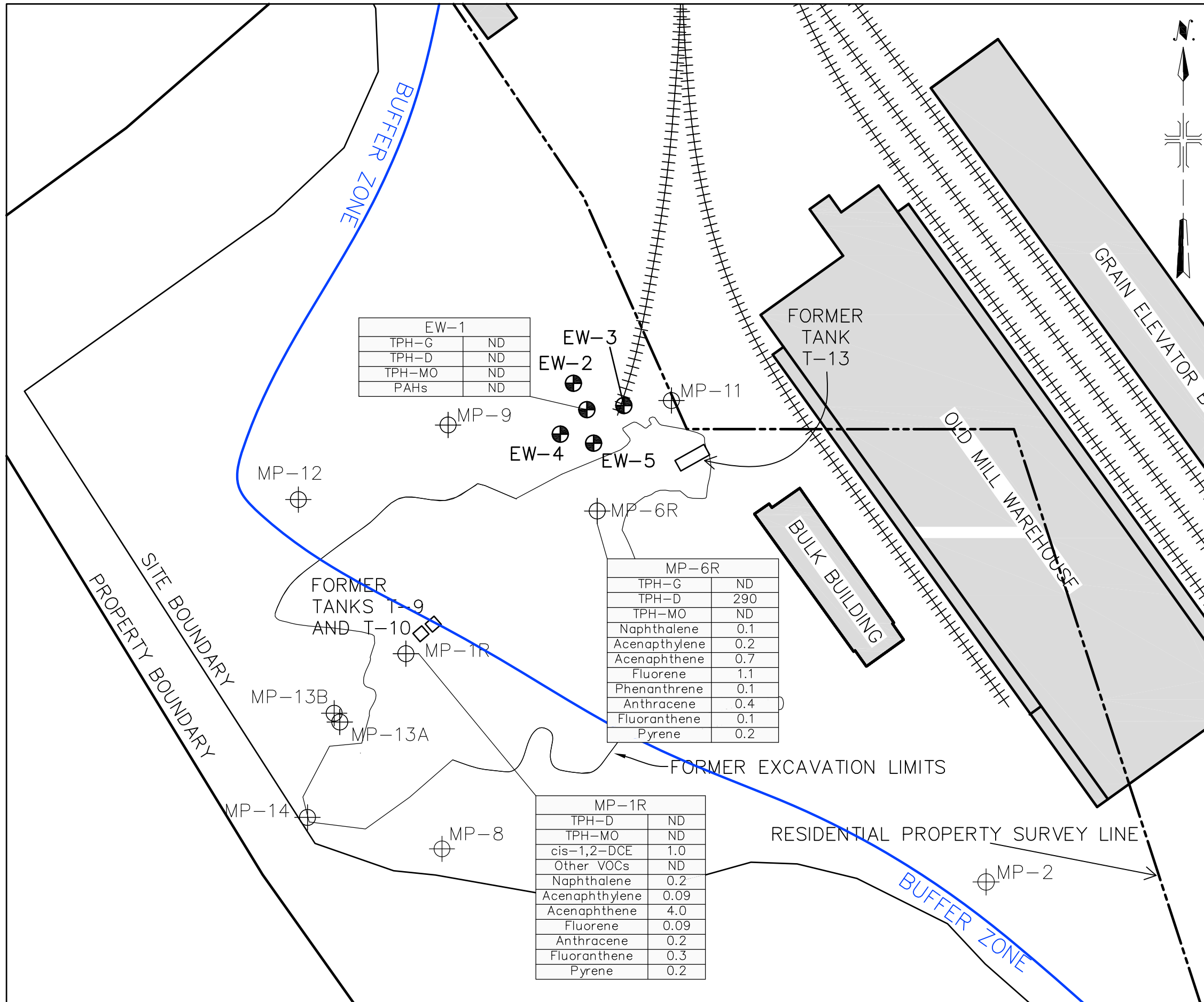


**LEGEND**

- MP-2 MONITORING WELL
- 6.08 GROUNDWATER ELEVATION (ft msl)  
- measured on December 20, 2012  
- "ft msl" = "feet above mean sea level"
- \* MEASUREMENT NOT USED FOR CONTOURING
- EXTRACTION WELL
- APPROXIMATE SHALLOW GROUNDWATER SURFACE ELEVATION CONTOUR (DASHED WHERE INFERRED)
- DIRECTION OF GROUNDWATER FLOW

**NOTES**  
 LOCATIONS OF EXCAVATION LIMITS, BUILDINGS, AND OTHER SITE FEATURES WERE SURVEYED BY STOCKINGER SURVEYS OR CSS; OR ARE BASED ON FIELD OBSERVATIONS.





EW-1	
TPH-G	ND
TPH-D	ND
TPH-MO	ND
PAHs	ND

MP-6R	
TPH-G	ND
TPH-D	290
TPH-MO	ND
Naphthalene	0.1
Acenaphthylene	0.2
Acenaphthene	0.7
Fluorene	1.1
Phenanthrene	0.1
Anthracene	0.4
Fluoranthene	0.1
Pyrene	0.2

MP-1R	
TPH-D	ND
TPH-MO	ND
cis-1,2-DCE	1.0
Other VOCs	ND
Naphthalene	0.2
Acenaphthylene	0.09
Acenaphthene	4.0
Fluorene	0.09
Anthracene	0.2
Fluoranthene	0.3
Pyrene	0.2

**LEGEND**

- MP-2 ⊕ MONITORING WELL
- \*WELLS MP-1R AND MP-6R INSTALLED IN EXCAVATION BACKFILL AREAS
- ⊕ EXTRACTION WELL

WELL ID	
CONSTITUENT	CONCENTRATION (ug/L)

-TABLES INCLUDE CONSTITUENTS REPORTED ABOVE ANALYTICAL METHOD REPORTING LIMITS.  
 -PLEASE SEE TABLE 4 FOR COMPLETE ANALYTICAL RESULTS AND NOTES.  
 ND = NO CONSTITUENTS IDENTIFIED ABOVE THEIR RESPECTIVE ANALYTICAL METHOD REPORTING LIMITS

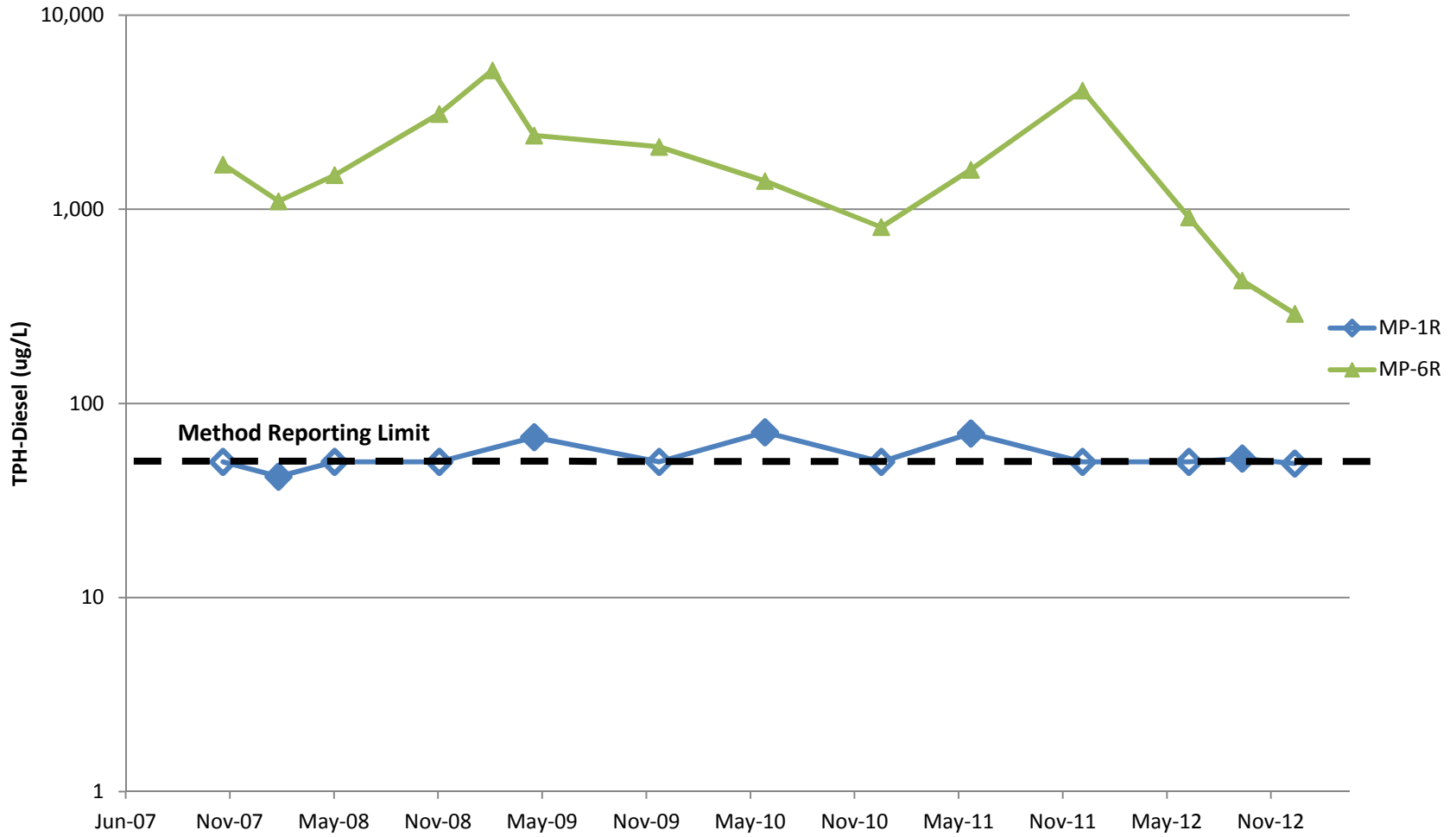
— BUFFER ZONE BOUNDARY

**NOTES**

LOCATIONS OF EXCAVATION LIMITS, BUILDINGS, AND OTHER SITE FEATURES WERE SURVEYED BY STOCKINGER SURVEYS OR CSS; OR ARE BASED ON FIELD OBSERVATIONS.



**Figure 5. TPH-D Concentration Versus Time**  
**Fourth Quarter 2012 Groundwater Monitoring Report, February 2013**  
**Leasehold Property, 800 Derr Street, Vallejo, California**



**Notes:**

1. Includes only data collected on or after August 13, 2007, when use of silica gel cleanup was first implemented as a standard procedure for TPH-D analysis at the Site.
2. Values reported by the laboratory as "non-detect" are plotted with an "open" (no color) symbol.

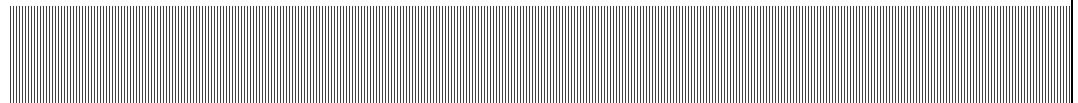


**General Mills Operations, Inc.**  
Fourth Quarter 2012 Groundwater Monitoring Report  
Leasehold Property, Former Flour Mill Facility  
800 Derr Street, Vallejo, California

---

# **Appendix A**

## **Field Activity Report**





December 28, 2012

Mr. Todd Miller  
Principal Geologist  
ARCADIS U.S., Inc.  
2999 Oak Road, Suite 300  
Walnut Creek, California 94597

**SUBJECT: December 2012 Quarterly Groundwater Monitoring Program for Former General Mills Site, Vallejo, California**

Dear Mr. Miller,

Please find enclosed the Field Activity Report for the December 2012 quarterly groundwater monitoring event that occurred at 800 Derr Street, Vallejo, California. The report contains all pertinent documentation associated with this monitoring event.

If you have any questions or concerns regarding this Field Activity Report, please do not hesitate to contact Stephen Penman directly at [spen@envsamplng.com](mailto:spen@envsamplng.com) or at (925) 372-8108.

Sincerely,  
**Environmental Sampling Services, LLC**

A handwritten signature in blue ink, appearing to read "J Lee", is written over the typed name and title.

Jacqueline Lee  
Manager

**Enclosure**

cc: Sarah Carman (e-mail only)

**FIELD ACTIVITY REPORT  
FOR**

**DECEMBER 2012  
QUARTERLY GROUNDWATER  
MONITORING EVENT**

**FORMER GENERAL MILLS SITE  
800 DERR STREET  
VALLEJO, CALIFORNIA**

Prepared for: ARCADIS U.S., Inc.  
2999 Oak Road, Suite 300  
Walnut Creek, California 94597

Date Prepared: December 28, 2012



## **FIELD ACTIVITY REPORT FOR**

### **DECEMBER 2012 QUARTERLY GROUNDWATER MONITORING EVENT**

**FORMER FLOUR MILL  
800 DERR STREET  
VALLEJO, CALIFORNIA**

**Task 1:** Depth to groundwater level measurements for sixteen well locations

**Task 2:** Daily Shoreline Inspection

**Task 3:** Monitor and sample three wells (MP-1R, MP-6R, and EW-1)

**ESS Personnel:** Stephen Penman and Jacqueline Lee (GWL measurements and Shore Inspection)

**Date of Activities:** December 20, 2012

#### ***Decontamination Procedures***

All reusable downhole equipment was cleaned with Liqui-Nox® laboratory grade soap, potable water, and rinsed with distilled water prior to use and between each well.

#### ***Groundwater Level Measurements***

Depth to groundwater was measured and recorded for sixteen well locations prior to any purging activities. Each well was allowed to equilibrate to atmospheric pressure for more than thirty minutes. All readings were measured with a Solinst® Oil/Water Interface Meter, Serial Number 9371-1. Three successive readings that agreed to within one-hundredth of a foot determined depth to groundwater (Table 1). All measurements were referenced to the surveyor's mark or north rim on the well casing.

Floating product was not detected in any of the monitoring wells.

#### ***Daily Shoreline Inspection***

One daily shoreline inspection was performed during this monitoring event. Inspection was performed from 09:30 to 09:50 a.m. December 20, 2012 and there was no evidence of any sheen or product on the surface water emanating from the site.

#### ***Field Equipment Calibration***

A multi-parameter meter, equipped with an in-line flow through cell, and Turbidity meter were used for monitoring purposes.

Equipment calibration was performed in accordance with the instruments' calibration and operating



procedures. The following standard solutions were used for calibration purposes: pH 4, 7, and 10; 1,000  $\mu\text{S}/\text{cm}^c$  for Specific Conductivity and Zobell® for Oxidation Reduction Potential (ORP). Dissolved Oxygen (DO) was calibrated to air (100% saturation). Turbidity was checked against a 0.02 Nephelometric (NTU) standard.

### ***Water Quality Indicator Parameters***

The following indicator parameters were monitored and recorded during purging activities: pH, Specific Conductivity ( $\mu\text{S}/\text{cm}^c$ ), DO (mg/L), ORP (mV), Turbidity (NTU), and Temperature (Celsius). Physical parameters such as drawdown, color, and odor were also recorded (see Water Quality Sample Log Sheets).

### ***Well Purging Procedures***

Three wells (MP-1R, MP-6R, and EW-1) were purged using a peristaltic pump with dedicated tubing. Pump intake was approximately set to the middle of the screen interval.

Each well was purged following procedures recommended by the United States Environmental Protection Agency Low Flow (Minimal Drawdown) Ground-Water Sampling Procedures, revised 1998. Each well was purged at a rate no greater than 1000-ml per minute until water quality parameters stabilized.

EPA recommended stabilization guidelines for low-flow sampling were used. Stabilization was achieved after the indicator parameters stabilized for three successive readings. The following criteria were used:  $\pm 0.1$  for pH,  $\pm 3\%$  for Specific Conductivity,  $\pm 0.3$  mg/L for Dissolved Oxygen,  $\pm 10$  mV for ORP, and  $\pm 0.2^\circ\text{C}$  for Temperature.

The following criteria were used to determine turbidity stabilization:

- 0-10 NTU, no criterion
- 10-50 NTU,  $\pm 5$  NTU
- more than 50 NTU,  $\pm 10\%$  NTU

### ***Well Sampling Procedures***

The wells were sampled following stabilization of water quality parameters. The pump tubing was disconnected from the in-line flow through cell for sample collection. Low-flow rate established during purging was maintained during sampling.

### ***Laboratory and Chemical Analyses***

Curtis & Tompkins, Ltd. Laboratory (CTL) of Berkeley, California provided Trip Blank sets and all sample containers.

The wells were sampled for a combination of following chemical analyses: Volatile Organic Compounds (EPA Method 8260B), TPH-Gasoline (EPA Method 8015B), TPH-Diesel & Motor Oil (EPA 8015B) with and without Silica Gel Cleanup, Poly Nuclear Aromatics (PNAs) by EPA Method 8270-SIM, and Total Dissolved Solids (TDS) by EPA Method 160.1

### ***Sample Containers***

Each VOCs, BTEX/MTBE, or TPH-Gasoline sample set was contained in three 40-ml VOA containers preserved with Hydrochloric Acid.

Each TPH-Diesel & Motor Oil sample set was contained in two, non-preserved, 500-ml amber glass containers.

Each PNA sample set was contained in two, non-preserved, one-liter amber glass containers.



Each TDS sample was contained in a non-preserved, 250-ml High Density Polyethylene (HDPE) container.

### ***Sample Handling***

All sample labels were completed with waterproof ink and affixed to sample containers.

All sample containers were filled to maximum capacity.

All sample containers were wiped dry, sealed in Ziploc® bags, and placed in chilled coolers for storage and shipment.

### ***Quality Assurance /Quality Control (QA/QC) Samples***

#### **Trip Blank:**

One Trip Blank set was submitted to CTL for VOCs analyses.

#### **Duplicate:**

One duplicate sample was collected from monitoring well EW-1 for analyses. The duplicate sample was labeled "EW-1-DUP". Each non-volatile duplicate was collected by filling the primary sample container until one-half full, and then alternating to the designated duplicate sample container until the same volume was collected. The alternating procedure continued until maximum capacity was achieved. The duplicate sample is documented on the appropriate Water Quality Sample Log Sheet.

No other QA/QC samples were requested.

### ***Chain of Custody (COC)***

All sample handling was conducted under standard Geotracker chain of custody procedures. The COC included: sampler's name and signature, sample identification, field point names, sample date and time, and analysis request section. Hard Copy, PDF, EDD, and EDF reporting formats were requested.

### ***Sample Delivery***

All samples remained in ESS's possession and were relinquished to CTL December 20, 2012.

### ***Disposal of Wastewater***

All purged groundwater and decontamination water was transferred into the site sanitary manhole for disposal.

## **Comments**

A slight sulfuric-like odor was noted at MP-1R.

Suspended organic debris, orange in color, was noted in the purgewater from EW-1.

All work was performed according to the ARCADIS's Sampling Task Order executed June 19, 2011 and all subsequent directives issued by ARCADIS relating to the December 2012 monitoring event.

**Environmental Sampling Services, LLC**



Jacqueline Lee  
Manager

### Attachments:

Table 1: Summary of December 2012 Quarterly Groundwater Monitoring Event  
Water Quality Sample Log Sheets  
Daily Equipment Calibration Sheet  
Chain of Custody



**Table 1: Summary of December 2012 Quarterly Groundwater Monitoring Event**

**Project Name: Former General Mills Site**

**Project Location: 800 Derr Street, Vallejo, California**

Well Identification	Measurement Date (mm/dd/yy)	Measurement Time	Depth to Product (Ft., below TOC)	Depth to Groundwater (Ft., below TOC)	Sample Date (mm/dd/yy)	Sample Time	QA/QC Type	QA/QC Identification	QA/QC Sample Time
MP-1R	12/20/12	8:55	ND	4.96	12/20/12	10:57	None	NA	NA
MP-2	12/20/12	8:41	ND	4.75	NS	NA	NA	NA	NA
MP-6R	12/20/12	8:58	ND	4.30	12/20/12	12:20	None	NA	NA
MP-8	12/20/12	8:44	ND	5.41	NS	NA	NA	NA	NA
MP-9	12/20/12	8:36	ND	3.08	NS	NA	NA	NA	NA
MP-10	12/20/12	9:13	ND	4.40	NS	NA	NA	NA	NA
MP-11	12/20/12	9:00	ND	4.85	NS	NA	NA	NA	NA
MP-12	12/20/12	8:52	ND	3.05	NS	NA	NA	NA	NA
MP-13A	12/20/12	8:49	ND	4.85	NS	NA	NA	NA	NA
MP-13B	12/20/12	8:51	ND	5.11	NS	NA	NA	NA	NA
MP-14	12/20/12	8:47	ND	4.95	NS	NA	NA	NA	NA
EW-1	12/20/12	8:27	ND	6.59	12/20/12	9:16	Duplicate	EW-1-DUP	9:16
EW-2	12/20/12	8:22	ND	6.66	NS	NA	NA	NA	NA
EW-3	12/20/12	8:25	ND	7.07	NS	NA	NA	NA	NA
EW-4	12/20/12	8:32	ND	6.58	NS	NA	NA	NA	NA
EW-5	12/20/12	8:27	ND	6.61	NS	NA	NA	NA	NA

TOC= Top of Well Casing

NA= Not Applicable

ND= Not Detected

NS = Not Sampled



**Environmental  
Sampling Services, LLC**

<b>WATER QUALITY SAMPLE LOG SHEET</b>	WELL IDENTIFICATION: <b>MP-1R</b> DATE: <b>12/20/2012</b>
Project Name: <u>Former General Mills Site, Vallejo, CA</u>	Client: <u>ARCADIS U.S., Inc.</u>
Laboratory: <u>Curtis &amp; Tompkins, LTD. (510) 486-0900</u>	Weather Conditions: <u>Partly cloudy &amp; cool ~ 39°F</u>
Well Diameter: 3/4" 1" <u>(2")</u> 4" 5" Other: _____	Well Type: <u>(PVC)</u> / Stainless Steel / Other: _____
Is Well Secured? <u>Yes</u> / No    Bolt Size: <u>9/16"</u>	Type of lock / Lock number: <u>No lock</u>
Screen Interval (Ft., BGS): <u>4 - 13.5</u>	Set pump intake @ <u>8.95</u> (Ft., BTOC)
Purge Method: Disp. PE Bailer    Centrifugal Pump <u>(Peristaltic Pump)</u> Bladder Pump    SS Submersible Pump	
Pump Lines: NA / <u>(PE)</u> Teflon / Other - New / Cleaned <u>(Dedicated)</u> Bailer Line: <u>NA</u> New / Cleaned / Dedicated	
Method of Cleaning Pump: <u>NA</u> / Liqui-nox / Tap Water / DI Rinse / Other: _____	
Sampling Method: Disp. PE Bailer <u>(Peristaltic Pump)</u> Bladder Pump    SS Submersible Pump    PDBs	
Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / <u>556 MPS - 09C100612</u>	
Equipment Calibration: <u>See Daily Equipment Calibration Sheet</u> OVM 580B P.I.D. Reading: <u>NA</u> ppm	
Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / <u>56500</u> / Other: _____	
Beginning Water Level (DTW): <u>4.71 @ 10:05</u> Ending Water Level: <u>6.34</u>	
TD = <u>13.70 - 4.71</u> (DTW) = <u>8.99</u> (Ft. of water) x "K" = <u>1.46</u> (Gals./CV) x <u>NA</u> (No. of CV) = <u>NA</u> (Gals.)	
"K" = 0.002 (3/4" well)    "K" = 0.04 (1" well) <u>"K" = .163 (2" well)</u> "K" = 0.653 (4" well)    "K" = 1.02 (5" well)	

**FIELD WATER QUALITY PARAMETERS**

Date	Time	Discharge (Liters)	Temp (°C) ± 0.2°C	Specific Conductivity (µS/cm <sup>2</sup> ) ± 3%	DO (mg/L) ± 0.3 mg/L	pH (SU) ± 0.1 SU	ORP (mV) ± 10mV	Turbidity (NTU) ± 10%	Water Level (BTOC)	Color
<u>12/20/12</u>	<u>10:09</u>	<u>Initial (0.5)</u>	<u>18.94</u>	<u>17459</u>	<u>2.03</u>	<u>7.20</u>	<u>-281.5</u>	<u>5.15</u>	<u>5.01</u>	<u>clear</u>
	<u>10:12</u>	<u>1.0</u>	<u>19.18</u>	<u>17667</u>	<u>0.38</u>	<u>7.23</u>	<u>-321.8</u>	<u>2.57</u>	<u>5.19</u>	<u>"</u>
	<u>10:15</u>	<u>1.5</u>	<u>18.94</u>	<u>17619</u>	<u>0.44</u>	<u>7.24</u>	<u>-333.0</u>	<u>1.86</u>	<u>5.29</u>	<u>"</u>
	<u>10:19</u>	<u>2.0</u>	<u>18.90</u>	<u>17625</u>	<u>0.46</u>	<u>7.26</u>	<u>-346.3</u>	<u>1.81</u>	<u>5.42</u>	<u>"</u>
	<u>10:24</u>	<u>2.5</u>	<u>18.78</u>	<u>17637</u>	<u>0.53</u>	<u>7.25</u>	<u>-357.9</u>	<u>1.80</u>	<u>5.52</u>	<u>"</u>
	<u>10:29</u>	<u>3.0</u>	<u>19.01</u>	<u>17632</u>	<u>0.64</u>	<u>7.26</u>	<u>-371.1</u>	<u>1.78</u>	<u>5.66</u>	<u>"</u>
	<u>10:34</u>	<u>3.5</u>	<u>19.58</u>	<u>17598</u>	<u>0.79</u>	<u>7.26</u>	<u>-371.6</u>	<u>1.63</u>	<u>5.82</u>	<u>"</u>
	<u>10:39</u>	<u>4.0</u>	<u>19.78</u>	<u>17583</u>	<u>0.83</u>	<u>7.26</u>	<u>-314.9</u>	<u>1.74</u>	<u>5.97</u>	<u>"</u>
	<u>10:44</u>	<u>4.5</u>	<u>19.60</u>	<u>17586</u>	<u>0.84</u>	<u>7.26</u>	<u>-365.7</u>	<u>1.51</u>	<u>6.07</u>	<u>"</u>
	<u>10:49</u>	<u>5.0</u>	<u>19.62</u>	<u>17591</u>	<u>0.86</u>	<u>7.26</u>	<u>-369.6</u>	<u>1.32</u>	<u>6.19</u>	<u>"</u>
	<u>10:54</u>	<u>5.5</u>	<u>19.50</u>	<u>17620</u>	<u>0.84</u>	<u>7.26</u>	<u>-372.8</u>	<u>0.61</u>	<u>6.34</u>	<u>"</u>

Total Discharge: 6.0 Liters    Disposal of discharged water: On-Site Sanitary Sewer  
 Date / Time Sampled: 12/20/12 @ 10:57    Analysis: TPH-D/MO (8015B) with & without silica gel cleanup;  
PNA's (8270-SIM); TDS (160.1); VOCs (8260B).

Notes: purge water has a H<sub>2</sub>S odor

QA/QC: None @ \_\_\_\_\_ as a Duplicate    Equipment Blank    Field Blank    MS/MSD  
 Recorded by: (Stephen Penmar) / Jacqueline Lee    Signature: [Signature]    Page 1 of 1



**Environmental  
Sampling Services, LLC**

**WATER QUALITY SAMPLE LOG SHEET** WELL IDENTIFICATION: MP-6R DATE: 12/20/2012

Project Name: Former General Mills Site, Vallejo, CA Client: ARCADIS U.S., Inc.  
 Laboratory: Curtis & Tompkins, LTD. (510) 486-0900 Weather Conditions: Partly cloudy, breezy & cool ~ 46°F  
 Well Diameter: 3/4" 1" (2") 4" 5" Other: \_\_\_\_\_ Well Type: (PVC) / Stainless Steel / Other: \_\_\_\_\_  
 Is Well Secured? (Yes) No Bolt Size: 9/16" Type of lock / Lock number: Dolphin  
 Screen Interval (Ft., BGS): 4.5 - 14.0 Set pump intake @ 10.18 (Ft., BTOC)  
 Purge Method: Disp. PE Bailer Centrifugal Pump (Peristaltic Pump) Bladder Pump SS Submersible Pump  
 Pump Lines: NA (PE) / Teflon / Other - New / Cleaned / Dedicated Bailer Line: (NA) New / Cleaned / Dedicated  
 Method of Cleaning Pump: (NA) / Liqui-nox / Tap Water / DI Rinse / Other: \_\_\_\_\_  
 Sampling Method: Disp. PE Bailer (Peristaltic Pump) Bladder Pump SS Submersible Pump PDBs  
 Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 556 MPS - 09C100612  
 Equipment Calibration: See Daily Equipment Calibration Sheet OVM 580B P.I.D. Reading: NA ppm  
 Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 (56500) Other: \_\_\_\_\_  
 Beginning Water Level (DTW): 4.21 @ 11:39 Ending Water Level: 4.52  
 TD = 14.93 - 4.21 (DTW) = 10.72 (Ft. of water) x "K" = 1.74 (Gals./CV) x NA (No. of CV) = NA (Gals.)  
 "K" = 0.002 (3/4" well) "K" = 0.04 (1" well) "K" = .163 (2" well) "K" = 0.653 (4" well) "K" = 1.02 (5" well)

**FIELD WATER QUALITY PARAMETERS**

Date	Time	Discharge (Liters)	Temp (°C) ± 0.2°C	Specific Conductivity (µS/cm <sup>2</sup> ) ± 3%	DO (mg/L) ± 0.3 mg/L	pH (SU) ± 0.1 SU	ORP (mV) ± 10mV	Turbidity (NTU) ± 10%	Water Level (BTOC)	Color
<u>12/20/12</u>	<u>11:41</u>	<u>Initial (0.5)</u>	<u>20.56</u>	<u>5212</u>	<u>1.35</u>	<u>7.44</u>	<u>-244.7</u>	<u>16.9</u>	<u>4.33</u>	<u>Slightly cloudy</u>
	<u>11:45</u>	<u>1.0</u>	<u>20.54</u>	<u>5200</u>	<u>0.39</u>	<u>7.38</u>	<u>-233.3</u>	<u>12.6</u>	<u>4.37</u>	<u>"</u>
	<u>11:48</u>	<u>1.5</u>	<u>20.47</u>	<u>5196</u>	<u>0.37</u>	<u>7.37</u>	<u>-239.9</u>	<u>11.0</u>	<u>4.39</u>	<u>"</u>
	<u>11:53</u>	<u>2.0</u>	<u>20.30</u>	<u>5173</u>	<u>0.37</u>	<u>7.36</u>	<u>-234.2</u>	<u>9.68</u>	<u>4.43</u>	<u>Clear</u>
	<u>11:58</u>	<u>2.5</u>	<u>20.41</u>	<u>5180</u>	<u>0.36</u>	<u>7.37</u>	<u>-234.9</u>	<u>9.82</u>	<u>4.45</u>	<u>"</u>
	<u>12:03</u>	<u>3.0</u>	<u>20.37</u>	<u>5185</u>	<u>0.34</u>	<u>7.36</u>	<u>-234.7</u>	<u>9.01</u>	<u>4.47</u>	<u>"</u>
	<u>12:08</u>	<u>3.5</u>	<u>20.22</u>	<u>5194</u>	<u>0.30</u>	<u>7.35</u>	<u>-247.3</u>	<u>8.87</u>	<u>4.49</u>	<u>"</u>
	<u>12:13</u>	<u>4.0</u>	<u>20.12</u>	<u>5209</u>	<u>0.31</u>	<u>7.34</u>	<u>-241.9</u>	<u>8.46</u>	<u>4.51</u>	<u>"</u>
	<u>12:18</u>	<u>4.5</u>	<u>20.10</u>	<u>5226</u>	<u>0.32</u>	<u>7.34</u>	<u>-243.2</u>	<u>8.13</u>	<u>4.52</u>	<u>"</u>
		<u>5.0</u>								
		<u>5.5</u>								

Total Discharge: 5.0 Liters Disposal of discharged water: On-Site Sanitary Sewer  
 Date / Time Sampled: 12/20/12 @ 12:20 Analysis: TPH-G (8015B); PNAs (8270-SIM); TDS (160.1)  
TPH-D/MO (8015B) with & without silica gel cleanup.

QA/QC: None @ \_\_\_\_\_ as a Duplicate Equipment Blank Field Blank MS/MSD  
 Recorded by: (Stephen Penman) / Jacqueline Lee Signature: [Signature] Page 1 of 1



**Environmental  
Sampling Services, LLC**

**WATER QUALITY SAMPLE LOG SHEET** WELL IDENTIFICATION: EW-1 DATE: 12/20/2012

Project Name: Former General Mills Site, Vallejo, CA Client: Arcadis U.S., Inc.  
 Laboratory: Curtis & Tompkins, LTD. (510) 486-0900 Weather Conditions: Clear, breezy & cold ~ 30°F  
 Well Diameter: 3/4" 1" 2" 4" 5" Other: \_\_\_\_\_ Well Type: PVC / Stainless Steel / Other: \_\_\_\_\_  
 Is Well Secured? Yes No Bolt Size: Stand pipe (PVC) Type of lock / Lock number: No lock  
 Screen Interval (Ft., BTOC): 7.5 - 14.5 Set pump intake @ 11.32 (Ft., BTOC)  
 Purge Method: Disp. PE Bailer Centrifugal Pump Peristaltic Pump Bladder Pump SS Submersible Pump  
 Pump Lines: NA PE / Teflon / Other - New / Cleaned / Dedicated Bailer Line NA New / Cleaned / Dedicated  
 Method of Cleaning Pump NA / Liqui-nox / Tap Water / DI Rinse / Other: \_\_\_\_\_  
 Sampling Method: Disp. PE Bailer Peristaltic Pump Bladder Pump SS Submersible Pump PDBs  
 Multi-Parameter Meter / Probe Serial No.: 556 MPS - 09C100611 / 556 MPS - 09C100612  
 Equipment Calibration: See Daily Equipment Calibration Sheet OVM 580B P.I.D. Reading: NA ppm  
 Water Level Meter Serial No.: OW 9371-1 / 25083 / 25742 / 49914 / 56500 Other: \_\_\_\_\_  
 Beginning Water Level (DTW): 6.54 @ 8:44 Ending Water Level: 6.57  
 TD = 14.82 - 6.54 (DTW) = 8.28 (Ft. of water) x "K" = 1.34 (Gals./CV) x NA (No. of CV) = NA (Gals.)  
 "K" = 0.002 (3/4" well) "K" = 0.04 (1" well) "K" = .163 (2" well) "K" = 0.653 (4" well) "K" = 1.02 (5" well)

**FIELD WATER QUALITY PARAMETERS**

Date	Time	Discharge (Liters)	Temp (°C) ± 0.2°C	Specific Conductivity (µS/cm <sup>2</sup> ) ± 3%	DO (mg/L) ± 0.3 mg/L	pH (SU) ± 0.1 SU	ORP (mV) ± 10mV	Turbidity (NTU) ± 10%	Water Level (BTOC)	Color
12/20/12	8:58	Initial (0.5)	17.31	1334	1.17	6.33	50.0	35.6	6.57	Slightly Cloudy
	8:59	1.0	17.99	1304	1.37	6.36	51.4	35.8	6.57	"
	9:01	1.5	18.01	1320	1.87	6.38	51.5	28.2	6.57	"
	9:02	2.0	18.47	1320	1.59	6.37	53.1	28.1	6.57	"
	9:04	2.5	18.86	1320	1.36	6.39	54.6	25.0	6.57	"
	9:06	3.0	19.07	1320	1.29	6.40	45.1	24.1	6.57	"
	9:08	3.5	19.33	1319	1.26	6.40	30.4	21.9	6.57	"
	9:10	4.0	19.32	1321	1.24	6.40	29.5	19.8	6.57	"
	9:12	4.5	19.43	1322	1.26	6.40	31.4	21.1	6.57	"
	9:14	5.0	19.46	1323	1.25	6.40	28.2	21.3	6.57	"
		5.5								

Total Discharge: 5.5 Liters Disposal of discharged water: On-Site Sanitary Sewer  
 Date / Time Sampled: 12/20/12 @ 9:16 Analysis: TPH-G (8015B); PNAs (8270-SIM); TDS (160.1)  
TPH-D/MO (8015B) with & without silica gel cleanup.

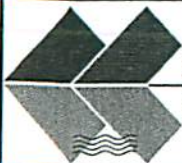
Notes: There is an orange organic material suspended in purge water.

QA/QC: EW-1-DNP @ 9:16 as a Duplicate Equipment Blank Field Blank MS/MSD

Recorded by: Stephen Penman / Jacqueline Lee Signature: \_\_\_\_\_ Page 1 of 1







**Environmental Sampling Services, LLC**

6680 Alhambra Ave., #102  
Martinez, California 94553-6105  
Telephone: (925) 372-8108  
www.envsampling.com  
Log Code: ESSM

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME**

**LABORATORY:**

Curtis & Tompkins, Ltd.

Lab Code: CTB

24 Hours  
 48 Hours  
 1 Week  
 Normal

Other:

**Report To:** Mr. Todd Miller  
**Company:** Arcadis U.S., Inc.  
**Address:** 2999 Oak Road, Suite 300  
Walnut Creek, CA 94597  
**E-Mail:** Todd.Miller@arcadis-us.com  
**Telephone:** (925) 296-7856  
**Project Name:** Former General Mills Site  
**Project Number:** 02626018.0000  
**Bill To:** ARCADIS U.S., Inc  
**GeoTracker No.:** T0609535283  
**Sampler(s):** Stephen Penman   
Jacqueline Lee   
Sampler's Signature: [Signature]  
Sampler's Signature:

**Reporting Requirement:** Hard Copy : Yes  No  PDF: Yes  No   
**EDD File:** Yes  No  Electronic (EDF) : Yes  No

**Analysis Request**

**Comments**

SAMPLE ID	FIELD POINT NAME	Sample		Number of Containers	Type of Container <sup>1</sup>	Matrix						Preservative					Field Filtered (FF)										
		Date	Time			Water	Groundwater	Soil	Soil Vapor	Other	Ice	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	VOCs (EPA 8260B)			TPH-G (8015B)	TPH-D/MO (8015B) with Silica Gel Cleanup	TPH-D/MO (8015B) without Silica Gel Cleanup	PNAs (8270-SIM)	TDS (160.1)				
Trip Blank	QCTB-1	12/20/12	8:30	3	1	X						X	X	X													
EW-1	EW-1	12/20/12	9:16	8	1,2,3	X						X	X	X				X	X	X	X						
EW-1-DUP	QCED-1	12/20/12	9:16	8	1,2,3	X						X	X	X				X	X	X	X						
MP-1R	MP-1R	12/20/12	10:57	8	1,2,3	X						X	X	X				X	X	X	X						
MP-6R	MP-6R	12/20/12	12:20	8	1,2,3	X						X	X	X				X	X	X	X						

Relinquished By: [Signature]	Date: 12/20/12	Time: 13:47	Received By: [Signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

1 = Sample Container Type: 1 =VOA 2=Glass 3=High Density Polyethylene 4=Summa Canister

QUESTIONS REGARDING COC, CALL ESS

Email COC upon receipt to: Sarah.Carman@arcadis-us.com  
spen@envsampling.com and jlee@envsampling.com

**SAMPLE RECEIPT**

Intact  Cold  
 On Ice  Ambient  
Preservative Correct?  
 Yes  No  NA

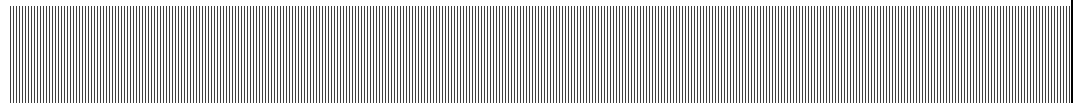


**General Mills Operations, Inc.**  
Fourth Quarter 2012 Groundwater Monitoring Report  
Leasehold Property, Former Flour Mill Facility  
800 Derr Street, Vallejo, California

---

## **Appendix B**

# **Analytical Laboratory Reports**





Curtis & Tompkins, Ltd.

Analytical Laboratories, Since 1878



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 242074  
ANALYTICAL REPORT

Arcadis  
2000 Powell St.  
Emeryville, CA 94608

Project : 02626018.0000  
Location : Former General Mills Site  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
TRIP BLANK	242074-001
EW-1	242074-002
EW-1-DUP	242074-003
MP-1R	242074-004
MP-6R	242074-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: \_\_\_\_\_

Desiree N. Tetrault  
Project Manager  
(510) 486-0900

Date: 12/31/2012

### CASE NARRATIVE

Laboratory number: 242074  
Client: Arcadis  
Project: 02626018.0000  
Location: Former General Mills Site  
Request Date: 12/20/12  
Samples Received: 12/20/12

This data package contains sample and QC results for five water samples, requested for the above referenced project on 12/20/12. The samples were received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.

**Semivolatile Organics by GC/MS SIM (EPA 8270C-SIM):**

High surrogate recoveries were observed for nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 in EW-1 (lab # 242074-002); no target analytes were detected in the sample. No other analytical problems were encountered.

**Total Dissolved Solids (TDS) (SM2540C):**

High RPD was observed for total dissolved solids in the BS/BSD for batch 194062. No other analytical problems were encountered.

242074



**Environmental  
Sampling Services, LLC**

6680 Alhambra Ave., #102  
Martinez, California 94553-6105  
Telephone: (925) 372-8108  
www.envsampling.com  
Log Code: ESSM

**CHAIN OF CUSTODY RECORD**

**TURN AROUND TIME**

**LABORATORY:**

Curtis & Tompkins, Ltd.

Lab Code: CTB

24 Hours  
 48 Hours  
 1 Week  
 Normal

Other:

**Report To:** Mr. Todd Miller  
**Company:** Arcadis U.S., Inc.  
**Address:** 2999 Oak Road, Suite 300  
Walnut Creek, CA 94597  
**E-Mail:** Todd.Miller@arcadis-us.com

**Telephone:** (925) 296-7856  
**Project Name:** Former General Mills Site  
**Project Number:** 02626018.0000  
**Bill To:** ARCADIS U.S., Inc  
**GeoTracker No.:** T0609535283

**Sampler(s):** Stephen Penman   
Jacqueline Lee

**Sampler's Signature:** *[Signature]*  
**Sampler's Signature:** \_\_\_\_\_

**Reporting Requirement:** Hard Copy : Yes  No  PDF: Yes  No   
**EDD File:** Yes  No  Electronic (EDF) : Yes  No

**Analysis Request**

**Comments**

SAMPLE ID	FIELD POINT NAME	Sample		Number of Containers	Type of Container <sup>1</sup>	Matrix							Preservative	Field Filtered (FF)	Comments			
		Date	Time			Water	Groundwater	Soil	Soil Vapor	Other	Ice	HCl				HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH
1 Trip Blank	QCTB-1	12/20/12	8:30	3	1	X												
2 EW-1	EW-1	12/20/12	9:16	8	1,2,3	X												
3 EW-1-DUP	QCFO-1	12/20/12	9:16	8	1,2,3	X												
4 MP-1R	MP-1R	12/20/12	10:57	8	1,2,3	X												
5 MP-6R	MP-6R	12/20/12	12:20	8	1,2,3	X												

VOCs (EPA 8260B)  
TPH-G (8015B)  
TPH-D/MO (8015B) with Silica Gel Cleanup  
TPH-D/MO (8015B) without Silica Gel Cleanup  
PNAs (8270-SIM)  
TDS (160.1)

Relinquished By: <i>[Signature]</i>	Date: 12/20/12	Time: 13:47	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

1 = Sample Container Type: 1 =VOA 2=Glass 3=High Density Polyethylene 4=Summa Canister

**QUESTIONS REGARDING COC, CALL ESS**

Email COC upon receipt to: Sarah.Carman@arcadis-us.com  
spen@envsampling.com and jlee@envsampling.com

**SAMPLE RECEIPT**

Intact  Cold  
 On Ice  Ambient  
 Preservative Correct?  
 Yes  No  NA

COOLER RECEIPT CHECKLIST



Login # 242074 Date Received 12/20/12 Number of coolers 2
Client APCADIS Project 02626018.0000

Date Opened 12/20/12 By (print) u (sign) [Signature]
Date Logged in [Signature] By (print) [Signature] (sign) [Signature]

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
Shipping info

2A. Were custody seals present? ... [ ] YES (circle) on cooler on samples [X] NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)
[ ] Bubble Wrap [ ] Foam blocks [X] Bags [ ] None
[ ] Cloth material [ ] Cardboard [ ] Styrofoam [ ] Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C
Type of ice used: [X] Wet [ ] Blue/Gel [ ] None Temp(°C) 1.2, 0.9

[ ] Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

[X] Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are there any missing / extra samples? YES (NO)

11. Are samples in the appropriate containers for indicated tests? YES NO

12. Are sample labels present, in good condition and complete? YES NO

13. Do the sample labels agree with custody papers? YES NO

14. Was sufficient amount of sample sent for tests requested? YES NO

15. Are the samples appropriately preserved? YES NO N/A

16. Did you check preservatives for all bottles for each sample? YES NO N/A

17. Did you document your preservative check? YES NO N/A

18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A

19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A

20. Are bubbles > 6mm absent in VOA samples? YES NO N/A

21. Was the client contacted concerning this sample delivery? YES (NO)
If YES, Who was called? By Date:

COMMENTS

[Blank lines for comments]



**Total Volatile Hydrocarbons**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/20/12
Units:	ug/L	Received:	12/20/12
Diln Fac:	1.000	Analyzed:	12/21/12
Batch#:	194097		

Field ID: EW-1 Lab ID: 242074-002  
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	75-124

Field ID: EW-1-DUP Lab ID: 242074-003  
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	107	75-124

Field ID: MP-6R Lab ID: 242074-005  
Type: SAMPLE

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	85	75-124

Type: BLANK Lab ID: QC671153

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	75-124



## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC671152	Batch#:	194097
Matrix:	Water	Analyzed:	12/21/12
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	927.1	93	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	106	75-124

## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8015B
Field ID:	EW-1	Batch#:	194097
MSS Lab ID:	242074-002	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Analyzed:	12/21/12
Diln Fac:	1.000		

Type: MS Lab ID: QC671154

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	11.07	2,000	1,873	93	71-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	75-124

Type: MSD Lab ID: QC671155

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,874	93	71-120	0	22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	117	75-124

RPD= Relative Percent Difference

**Total Extractable Hydrocarbons**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/20/12
Units:	ug/L	Received:	12/20/12
Diln Fac:	1.000	Prepared:	12/21/12
Batch#:	194099	Analyzed:	12/26/12

Field ID: EW-1                      Lab ID: 242074-002  
 Type: SAMPLE                      Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	460 Y	49
Diesel C10-C24 (SGCU)	ND	49
Motor Oil C24-C36	390	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	114	61-134
o-Terphenyl (SGCU)	119	61-134

Field ID: EW-1-DUP                      Lab ID: 242074-003  
 Type: SAMPLE                      Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	440 Y	49
Diesel C10-C24 (SGCU)	ND	49
Motor Oil C24-C36	440	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	104	61-134
o-Terphenyl (SGCU)	97	61-134

Field ID: MP-1R                      Lab ID: 242074-004  
 Type: SAMPLE                      Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	1,900 Y	49
Diesel C10-C24 (SGCU)	ND	49
Motor Oil C24-C36	950	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	103	61-134
o-Terphenyl (SGCU)	105	61-134

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit  
 SGCU= Silica gel cleanup  
 Page 1 of 2

**Total Extractable Hydrocarbons**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	12/20/12
Units:	ug/L	Received:	12/20/12
Diln Fac:	1.000	Prepared:	12/21/12
Batch#:	194099	Analyzed:	12/26/12

Field ID: MP-6R Lab ID: 242074-005  
 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	4,100 Y	49
Diesel C10-C24 (SGCU)	290	49
Motor Oil C24-C36	3,200	290
Motor Oil C24-C36 (SGCU)	ND	290

Surrogate	%REC	Limits
o-Terphenyl	105	61-134
o-Terphenyl (SGCU)	110	61-134

Type: BLANK Cleanup Method: EPA 3630C  
 Lab ID: QC671159

Analyte	Result	RL
Diesel C10-C24	ND	50
Diesel C10-C24 (SGCU)	ND	50
Motor Oil C24-C36	ND	300
Motor Oil C24-C36 (SGCU)	ND	300

Surrogate	%REC	Limits
o-Terphenyl	107	61-134
o-Terphenyl (SGCU)	108	61-134

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

SGCU= Silica gel cleanup

## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	194099
Units:	ug/L	Prepared:	12/21/12
Diln Fac:	1.000	Analyzed:	12/26/12

Type: BS    Cleanup Method: EPA 3630C  
 Lab ID: QC671160

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,104	84	60-120
Diesel C10-C24 (SGCU)	2,500	2,257	90	60-120

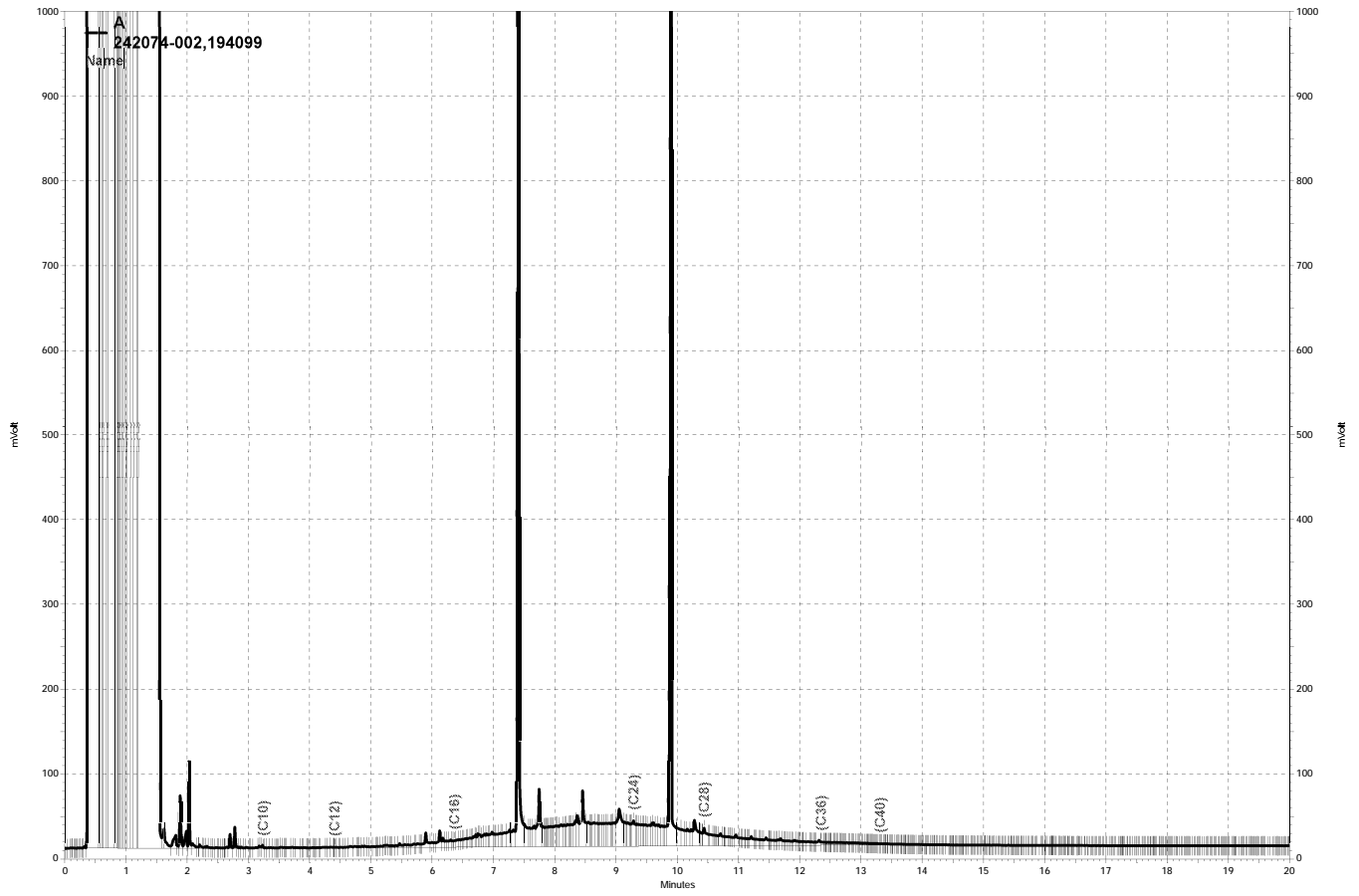
Surrogate	%REC	Limits
o-Terphenyl	107	61-134
o-Terphenyl (SGCU)	114	61-134

Type: BSD    Cleanup Method: EPA 3630C  
 Lab ID: QC671161

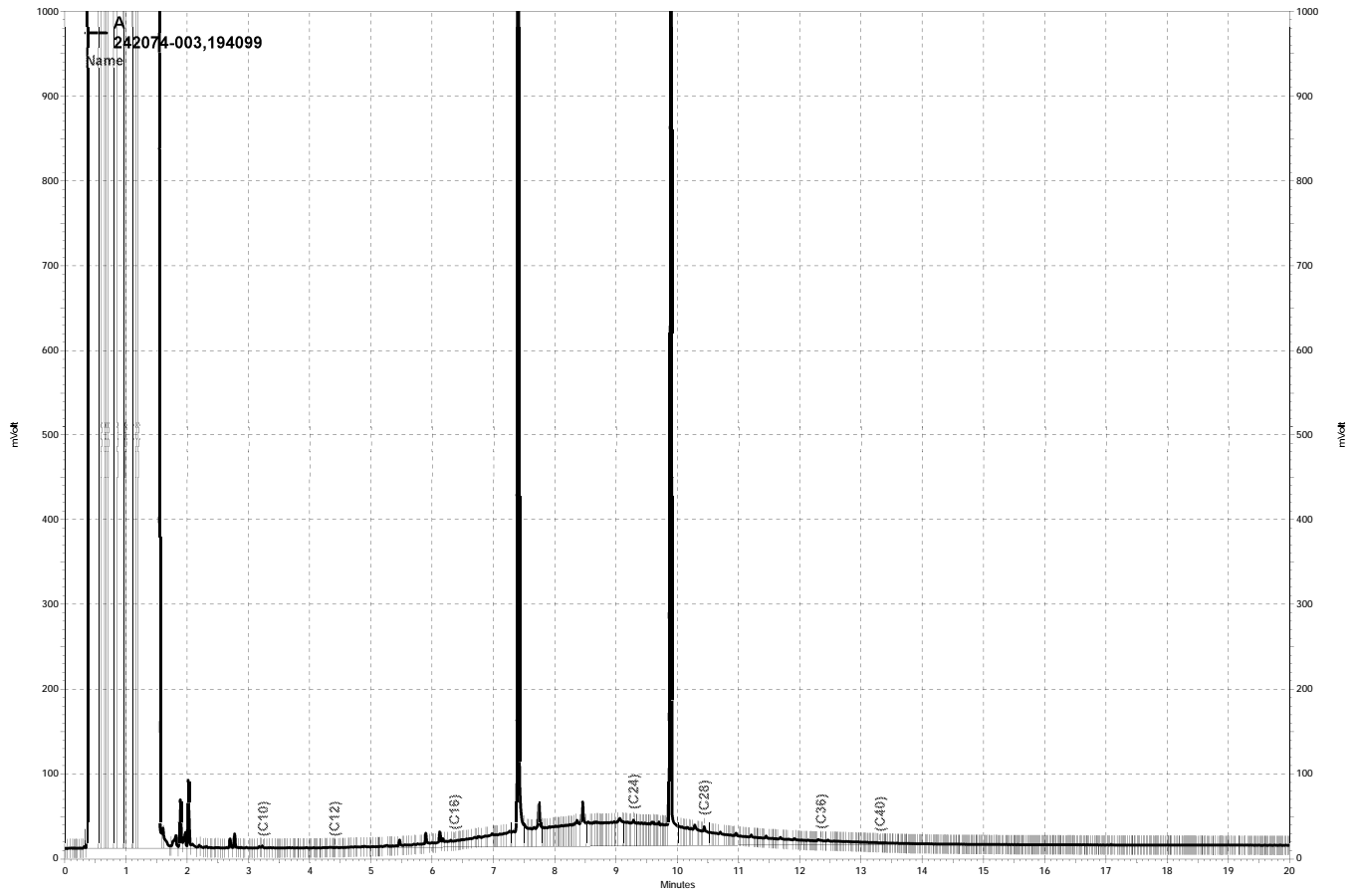
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,161	86	60-120	3	35
Diesel C10-C24 (SGCU)	2,500	2,172	87	60-120	4	35

Surrogate	%REC	Limits
o-Terphenyl	116	61-134
o-Terphenyl (SGCU)	113	61-134

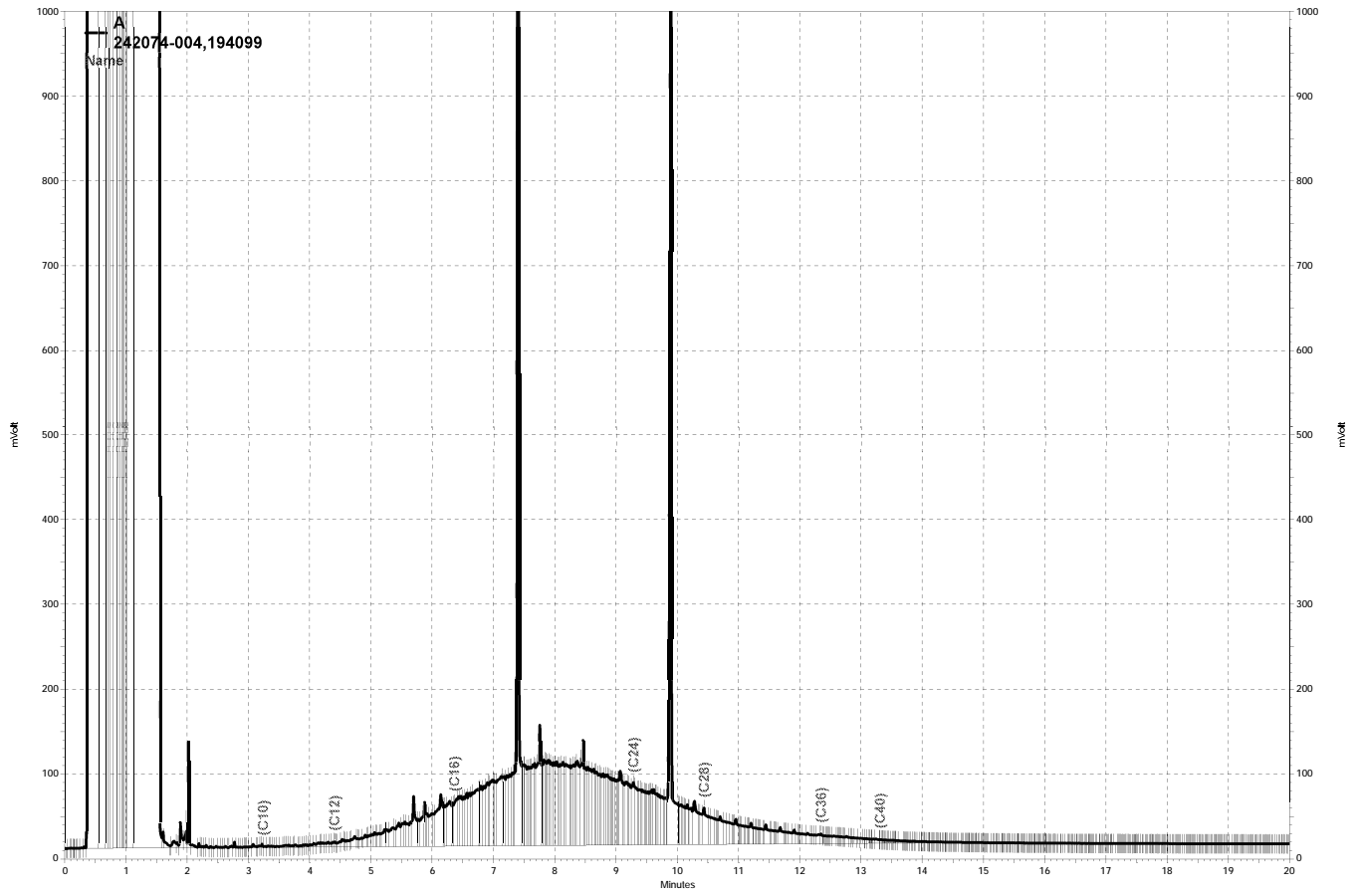
RPD= Relative Percent Difference  
 SGCU= Silica gel cleanup



— \\Lims\gdrive\ezchrom\Projects\GC26\Data\361a008, A

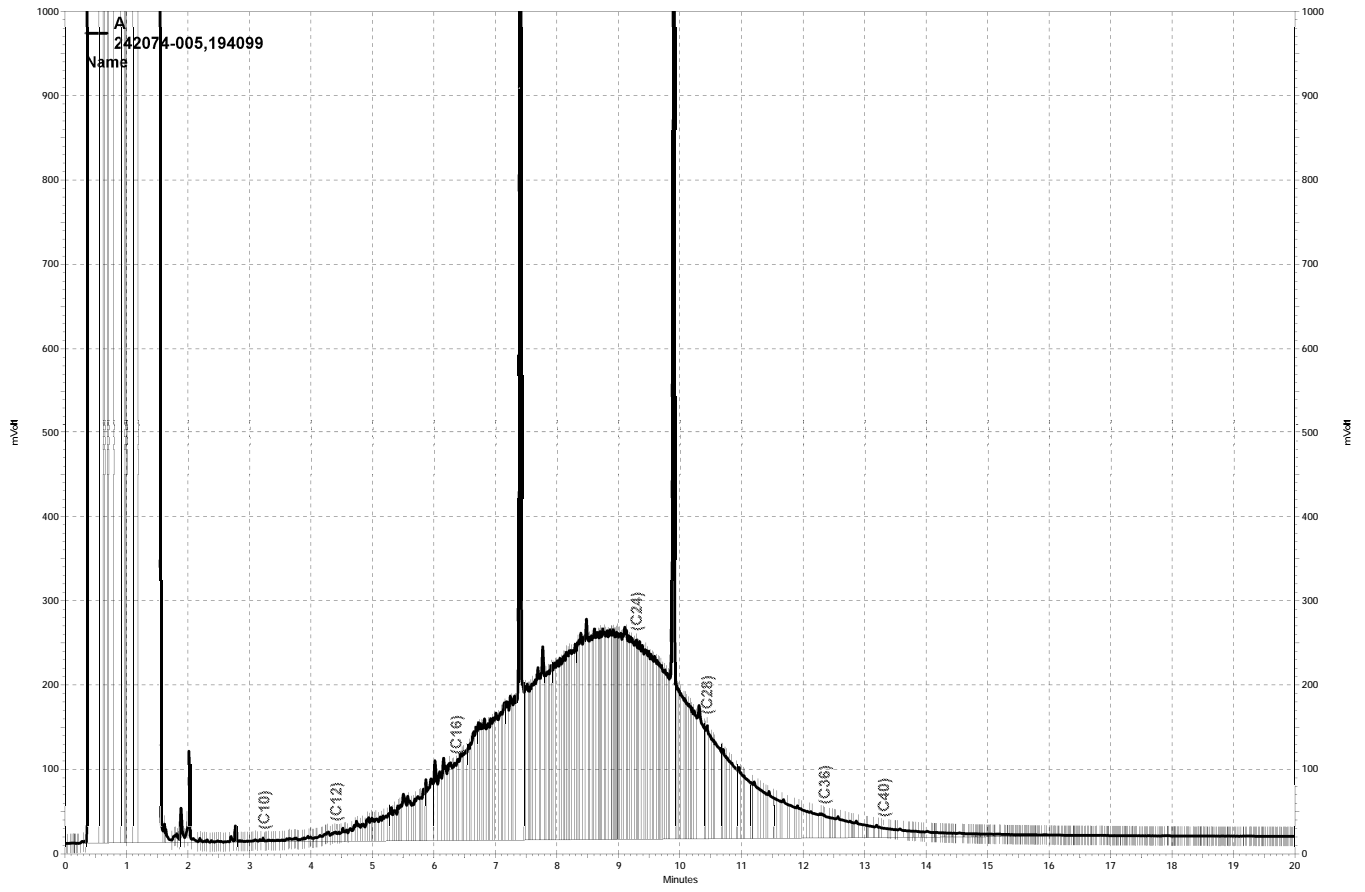


— \\Lims\gdrive\ezchrom\Projects\GC26\Data\361a009, A

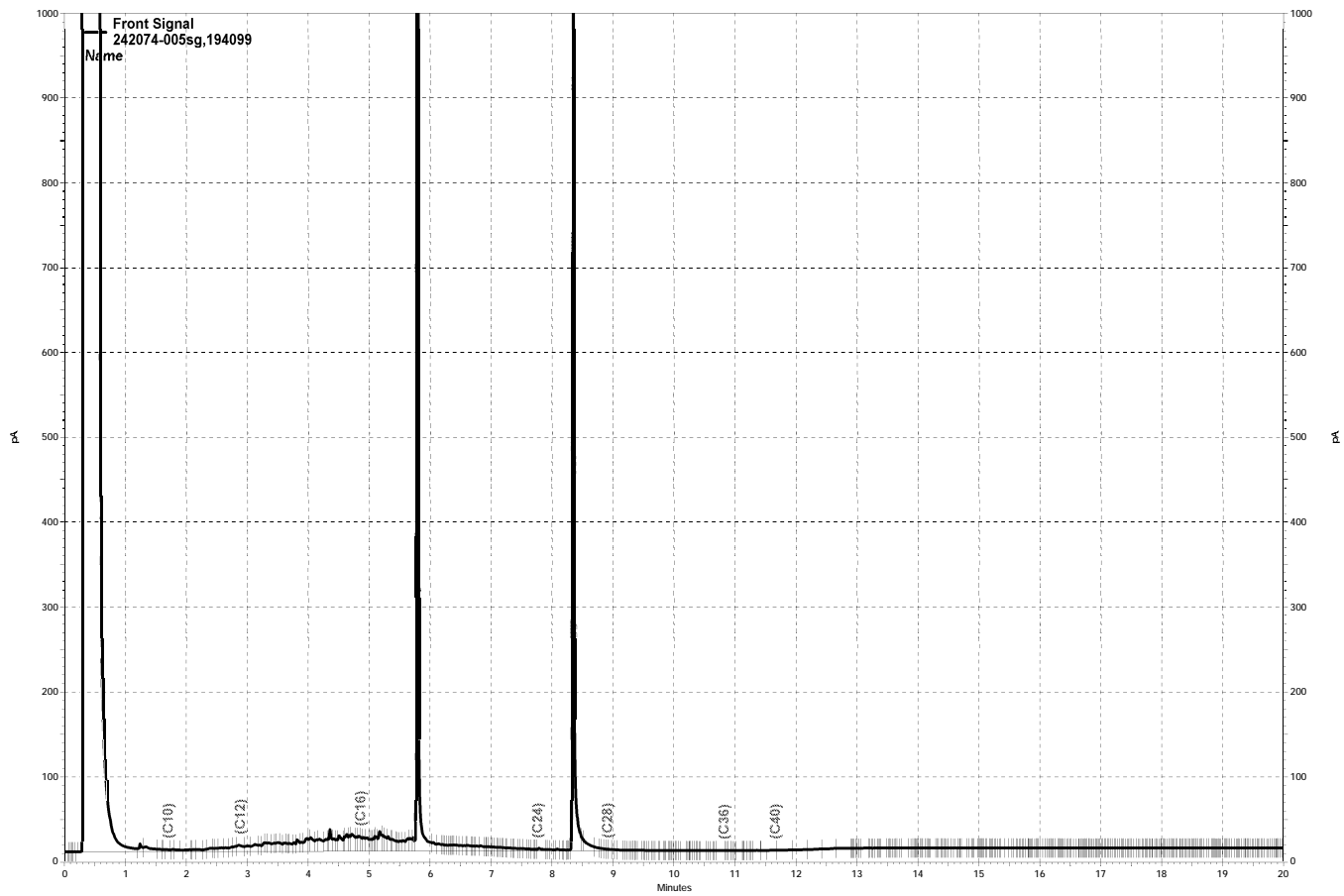


— \\Lims\gdrive\ezchrom\Projects\GC26\Data\361a010, A

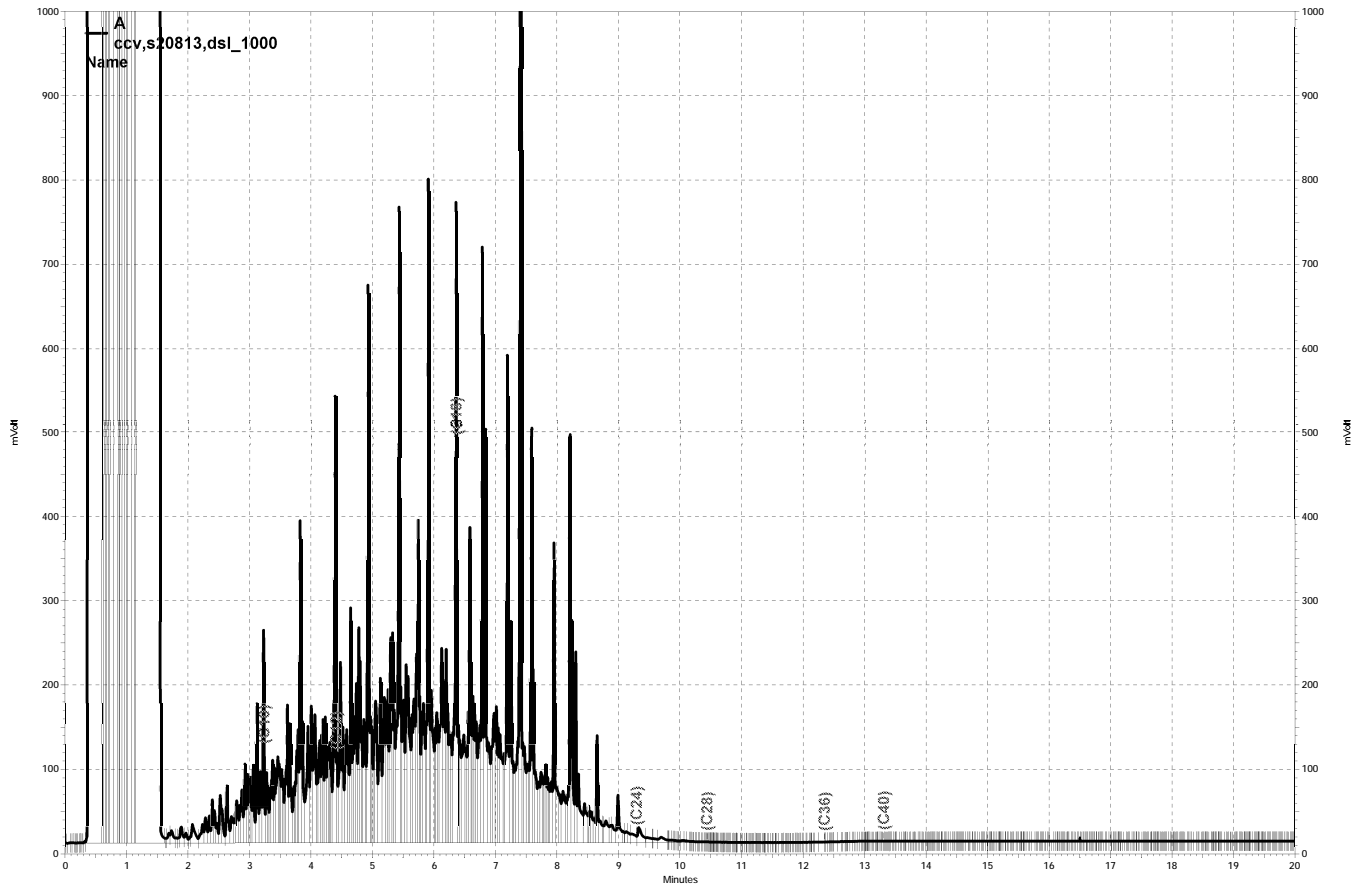




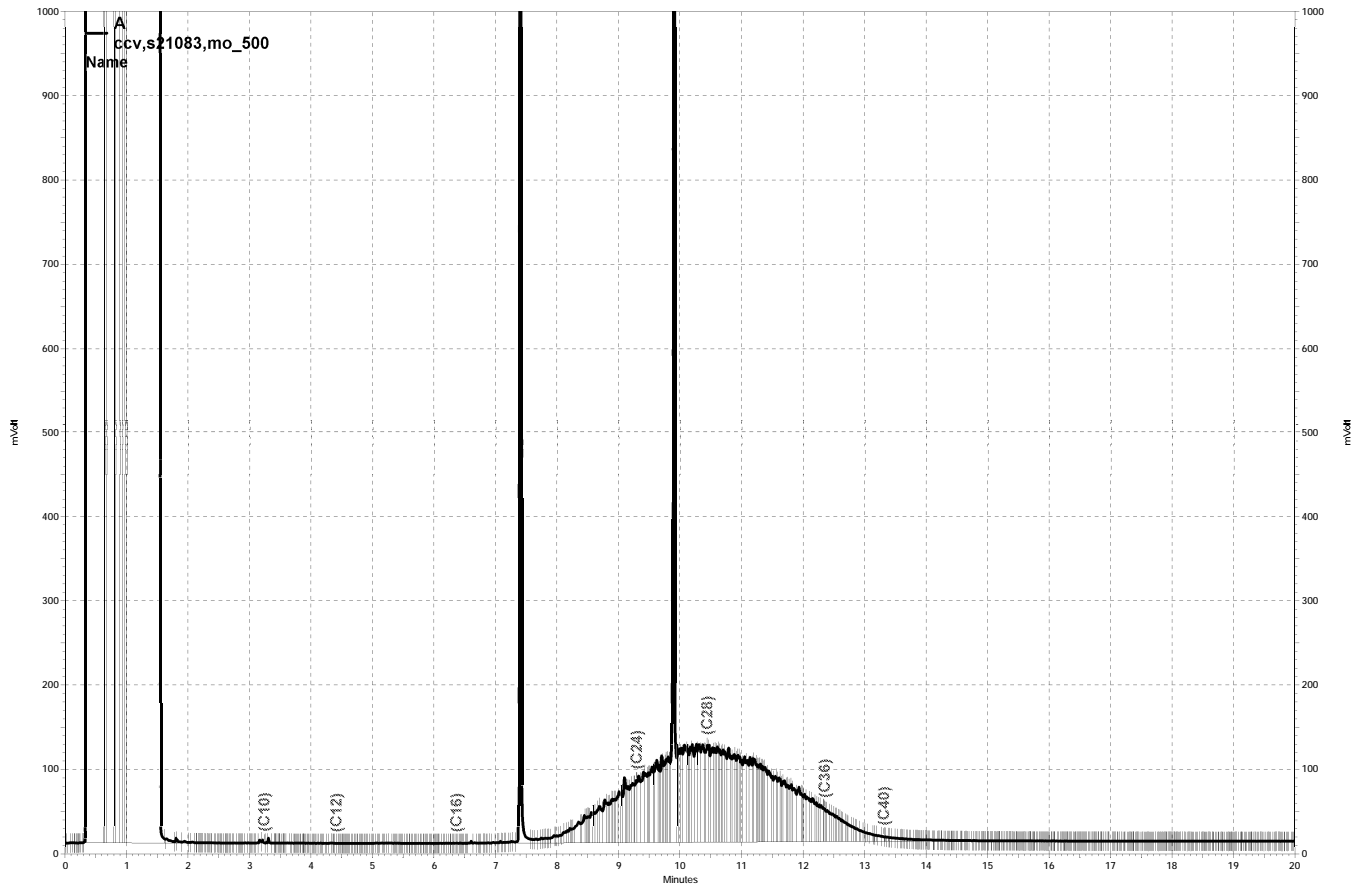
— \\Lims\gdrive\ezchrom\Projects\GC26\Data\361a011, A



— \\lms\gdrive\ezchrom\Projects\GC27\Data\361a010.dat, Front Signal



— \\Lims\gdrive\ezchrom\Projects\GC26\Data\361a003, A



— \\Lims\gdrive\ezchrom\Projects\GC26\Data\361a004, A

### Purgeable Organics by GC/MS

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Field ID:	TRIP BLANK	Batch#:	194179
Lab ID:	242074-001	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Analyzed:	12/28/12
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Field ID:	TRIP BLANK	Batch#:	194179
Lab ID:	242074-001	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Analyzed:	12/28/12
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	110	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-121

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Field ID:	MP-1R	Batch#:	194179
Lab ID:	242074-004	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Analyzed:	12/28/12
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	1.0	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Field ID:	MP-1R	Batch#:	194179
Lab ID:	242074-004	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Analyzed:	12/28/12
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	110	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected  
 RL= Reporting Limit



Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	194179
Units:	ug/L	Analyzed:	12/28/12
Diln Fac:	1.000		

Type:                    BS    Lab ID:                    QC671468

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.43	98	65-130
Benzene	25.00	24.96	100	80-123
Trichloroethene	25.00	25.93	104	76-121
Toluene	25.00	26.55	106	80-120
Chlorobenzene	25.00	26.58	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	94	80-121

Type:                    BSD    Lab ID:                    QC671469

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	21.67	87	65-130	12	22
Benzene	25.00	22.93	92	80-123	8	20
Trichloroethene	25.00	23.82	95	76-121	9	20
Toluene	25.00	24.44	98	80-120	8	20
Chlorobenzene	25.00	24.98	100	80-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-121

RPD= Relative Percent Difference

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC671470	Batch#:	194179
Matrix:	Water	Analyzed:	12/28/12
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 5030B
Project#:	02626018.0000	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC671470	Batch#:	194179
Matrix:	Water	Analyzed:	12/28/12
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	107	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected

RL= Reporting Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Field ID:	EW-1	Batch#:	194084
Lab ID:	242074-002	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Prepared:	12/21/12
Diln Fac:	1.000	Analyzed:	12/27/12

Analyte	Result	RL
Naphthalene	ND	0.09
Acenaphthylene	ND	0.09
Acenaphthene	ND	0.09
Fluorene	ND	0.09
Phenanthrene	ND	0.09
Anthracene	ND	0.09
Fluoranthene	ND	0.09
Pyrene	ND	0.09
Benzo(a)anthracene	ND	0.09
Chrysene	ND	0.09
Benzo(b)fluoranthene	ND	0.09
Benzo(k)fluoranthene	ND	0.09
Benzo(a)pyrene	ND	0.09
Indeno(1,2,3-cd)pyrene	ND	0.09
Dibenz(a,h)anthracene	ND	0.09
Benzo(g,h,i)perylene	ND	0.09

Surrogate	%REC	Limits
Nitrobenzene-d5	142 *	45-127
2-Fluorobiphenyl	131 *	49-120
Terphenyl-d14	156 *	27-120

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Field ID:	EW-1-DUP	Batch#:	194084
Lab ID:	242074-003	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Prepared:	12/21/12
Diln Fac:	1.000	Analyzed:	12/27/12

Analyte	Result	RL
Naphthalene	ND	0.09
Acenaphthylene	ND	0.09
Acenaphthene	ND	0.09
Fluorene	ND	0.09
Phenanthrene	ND	0.09
Anthracene	ND	0.09
Fluoranthene	ND	0.09
Pyrene	ND	0.09
Benzo(a)anthracene	ND	0.09
Chrysene	ND	0.09
Benzo(b)fluoranthene	ND	0.09
Benzo(k)fluoranthene	ND	0.09
Benzo(a)pyrene	ND	0.09
Indeno(1,2,3-cd)pyrene	ND	0.09
Dibenz(a,h)anthracene	ND	0.09
Benzo(g,h,i)perylene	ND	0.09

Surrogate	%REC	Limits
Nitrobenzene-d5	100	45-127
2-Fluorobiphenyl	106	49-120
Terphenyl-d14	120	27-120

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Field ID:	MP-1R	Batch#:	194084
Lab ID:	242074-004	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Prepared:	12/21/12
Diln Fac:	1.000	Analyzed:	12/27/12

Analyte	Result	RL
Naphthalene	0.2	0.09
Acenaphthylene	0.09	0.09
Acenaphthene	4.0	0.09
Fluorene	0.09	0.09
Phenanthrene	ND	0.09
Anthracene	0.2	0.09
Fluoranthene	0.3	0.09
Pyrene	0.2	0.09
Benzo(a)anthracene	ND	0.09
Chrysene	ND	0.09
Benzo(b)fluoranthene	ND	0.09
Benzo(k)fluoranthene	ND	0.09
Benzo(a)pyrene	ND	0.09
Indeno(1,2,3-cd)pyrene	ND	0.09
Dibenz(a,h)anthracene	ND	0.09
Benzo(g,h,i)perylene	ND	0.09

Surrogate	%REC	Limits
Nitrobenzene-d5	76	45-127
2-Fluorobiphenyl	87	49-120
Terphenyl-d14	91	27-120

ND= Not Detected  
 RL= Reporting Limit

**Semivolatile Organics by GC/MS SIM**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Field ID:	MP-6R	Batch#:	194084
Lab ID:	242074-005	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	ug/L	Prepared:	12/21/12
Diln Fac:	1.000	Analyzed:	12/27/12

Analyte	Result	RL
Naphthalene	0.1	0.09
Acenaphthylene	0.2	0.09
Acenaphthene	0.7	0.09
Fluorene	1.1	0.09
Phenanthrene	0.1	0.09
Anthracene	0.4	0.09
Fluoranthene	0.1	0.09
Pyrene	0.2	0.09
Benzo(a)anthracene	ND	0.09
Chrysene	ND	0.09
Benzo(b)fluoranthene	ND	0.09
Benzo(k)fluoranthene	ND	0.09
Benzo(a)pyrene	ND	0.09
Indeno(1,2,3-cd)pyrene	ND	0.09
Dibenz(a,h)anthracene	ND	0.09
Benzo(g,h,i)perylene	ND	0.09

Surrogate	%REC	Limits
Nitrobenzene-d5	98	45-127
2-Fluorobiphenyl	91	49-120
Terphenyl-d14	94	27-120

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**
**Semivolatile Organics by GC/MS SIM**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC671092	Batch#:	194084
Matrix:	Water	Prepared:	12/21/12
Units:	ug/L	Analyzed:	12/26/12

Analyte	Result	RL
Naphthalene	ND	0.1
Acenaphthylene	ND	0.1
Acenaphthene	ND	0.1
Fluorene	ND	0.1
Phenanthrene	ND	0.1
Anthracene	ND	0.1
Fluoranthene	ND	0.1
Pyrene	ND	0.1
Benzo(a)anthracene	ND	0.1
Chrysene	ND	0.1
Benzo(b)fluoranthene	ND	0.1
Benzo(k)fluoranthene	ND	0.1
Benzo(a)pyrene	ND	0.1
Indeno(1,2,3-cd)pyrene	ND	0.1
Dibenz(a,h)anthracene	ND	0.1
Benzo(g,h,i)perylene	ND	0.1

Surrogate	%REC	Limits
Nitrobenzene-d5	113	45-127
2-Fluorobiphenyl	112	49-120
Terphenyl-d14	108	27-120

ND= Not Detected  
 RL= Reporting Limit



## Batch QC Report

**Semivolatile Organics by GC/MS SIM**

Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC671093	Batch#:	194084
Matrix:	Water	Prepared:	12/21/12
Units:	ug/L	Analyzed:	12/26/12

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	1.000	1.016	102	43-120
Pyrene	1.000	0.8988	90	38-120

Surrogate	%REC	Limits
Nitrobenzene-d5	110	45-127
2-Fluorobiphenyl	105	49-120
Terphenyl-d14	94	27-120

**Batch QC Report**

Semivolatile Organics by GC/MS SIM			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	EPA 3520C
Project#:	02626018.0000	Analysis:	EPA 8270C-SIM
Field ID:	ZZZZZZZZZZ	Batch#:	194084
MSS Lab ID:	242032-007	Sampled:	12/18/12
Matrix:	Water	Received:	12/18/12
Units:	ug/L	Prepared:	12/21/12
Diln Fac:	1.000	Analyzed:	12/26/12

Type: MS Lab ID: QC671094

Analyte	MSS Result	Spiked	Result	%REC	Limits
Acenaphthene	<0.01923	0.9709	0.9555	98	47-120
Pyrene	<0.02304	0.9709	1.054	109	44-120

Surrogate	%REC	Limits
Nitrobenzene-d5	95	45-127
2-Fluorobiphenyl	97	49-120
Terphenyl-d14	115	27-120

Type: MSD Lab ID: QC671095

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	0.9434	0.9888	105	47-120	6	29
Pyrene	0.9434	1.063	113	44-120	4	47

Surrogate	%REC	Limits
Nitrobenzene-d5	110	45-127
2-Fluorobiphenyl	107	49-120
Terphenyl-d14	120	27-120

RPD= Relative Percent Difference

<b>Total Dissolved Solids (TDS)</b>			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	METHOD
Project#:	02626018.0000	Analysis:	SM2540C
Analyte:	Total Dissolved Solids	Sampled:	12/20/12
Matrix:	Water	Received:	12/20/12
Units:	mg/L	Prepared:	12/20/12
Batch#:	194062	Analyzed:	12/21/12

Field ID	Type	Lab ID	Result	RL	Diln Fac
EW-1	SAMPLE	242074-002	1,040	10	1.000
EW-1-DUP	SAMPLE	242074-003	1,060	10	1.000
MP-1R	SAMPLE	242074-004	10,800	100	10.00
MP-6R	SAMPLE	242074-005	3,870	20	2.000
	BLANK	QC671010	ND	10	1.000

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Total Dissolved Solids (TDS)			
Lab #:	242074	Location:	Former General Mills Site
Client:	Arcadis	Prep:	METHOD
Project#:	02626018.0000	Analysis:	SM2540C
Analyte:	Total Dissolved Solids	Batch#:	194062
Field ID:	MP-6R	Sampled:	12/20/12
MSS Lab ID:	242074-005	Received:	12/20/12
Matrix:	Water	Prepared:	12/20/12
Units:	mg/L	Analyzed:	12/21/12

Type	Lab ID	MSS Result	Spiked	Result	RL	%REC	Limits	RPD	Lim	Diln	Fac
BS	QC671011		104.0	106.0		102	73-120				1.000
BSD	QC671012		104.0	100.0		96	73-120	6 *	5		1.000
SDUP	QC671013	3,872		3,840	20.00			1	5		2.000

\*= Value outside of QC limits; see narrative

RL= Reporting Limit

RPD= Relative Percent Difference