

January 5, 2011

RECEIVED

4:06 pm, Jan 10, 2011 Alameda County

Environmental Health

ACHCSA-EHS 1131 Harbor Bay Parkway, Suite 250 Alameda, CA. 94502-6577

Re: Groundwater Monitoring Report – September 2010 969 San Pablo Avenue, Albany, CA. 94706 ProTech Project # 218-OH10

To Whom It May Concern:

Attached is the Professional Certification – Report for Groundwater Monitoring, Kelly-Moore Paint Company, 969 San Pablo Avenue, Albany, CA, September 2010 report that Kelly-Moore Paint Company received December 22, 2010 for groundwater monitoring for 969 San Pablo Avenue, Albany, California. This report was prepared by ProTech Consulting & Engineering to evaluate groundwater at this site as required by ACHCSA-EHS. Kelly-Moore Paint Company is aware of the content of this report. If you have questions, I can be reached at my office telephone at (650)610-4314

Sincerely.

Robert Stetson Director of Risk Management

1 Attachment: Report for Groundwater Monitoring, Kelly-Moore Paint Company, 969 San Pablo Avenue, Albany CA. – September 2010

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Kelly-Moore Paint Company, Inc. 987 Commercial St. San Carlos, CA. 94070 rstetson@kellymoore.com



22 December 2010

Mr. Robert Stetson Kelly-Moore Paint Company PO Box 3016 San Carlos, CA 94070

#### Re: Groundwater Monitoring Report – September 2010 969 San Pablo Avenue, Albany, CA ProTech Project # 218-OH10

Dear Mr. Stetson:

This document describes the events that took place during the groundwater monitoring at the subject site during the month of September 2010. The document recommends halting monitoring and documentation until the County responds to our last three reports, including this report. The next semi-annual event would be scheduled for March 2011 if we were to receive any input from the County. We suggest the ultimate goal remains to be formal closure of the ground water pollution site.

We will provide the Kelly-Moore Paint Company (KMPC) and the Alameda County Health Care Services Agency –Environmental Health Services (ACHCSA-EHS) with an electronic version of this report. A certification letter (on KMPC letterhead, signed by you) is anticipated to go in front of this document transmitting the report to the agencies. Your production of this letter is required prior to submittal to ACHCSA-EHS.

Please review this information and let us know if you have any questions or comments.

Sincerely, PROTECH CONSULTING & ENGINEERING

Glen Koutz President

#### **Distribution:**

Mark E. Detterman ACHCSA-EHS 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Project File GeoTracker

| Site Name:              | 969 San Pablo                            |
|-------------------------|--|
|                         |  |
| Site Address:           | 969 San Pablo Avenue, Albany, CA         |
|                         |  |
| Owner:                  | Kelly-Moore Paints                       |
|                         | P.O. Box 3016, San Carlos, CA 94070      |
|                         |  |
| Owner's Representative: | Robert Stetson                           |
|                         | Director of Risk Management              |
|                         | Tele: 650.592.8337x 4314                 |
|                         | Mobile: 650.222.6023                     |
|                         |  |
| Consultant:             | ProTech Consulting & Engineering         |
|                         | 1208 Main Street, Redwood City, CA 94063 |
|                         | Tele: 650.569.4020                       |
|                         |  |
| Project Manager:        | Sherwood Lovejoy, Jr.                    |
|                         | Tele: 415.381.2560                       |
|                         | Mobile: 650.714.4200                     |
| Regulator               | Mark E. Detterman                        |
|                         | Hazardous Materials Specialist           |
|                         | ACHCSA-EHS                               |
|                         | 1131 Harbor Bay Parkway, Suite 250       |
|                         | Alameda, CA 94502-6577                   |
|                         | Tele: 510.567.6876                       |

## **SITE INFORMATION**

## **PROFESSIONAL CERTIFICATION**

## REPORT FOR GROUNDWATER MONITORING KELLY MOORE PAINTS, 969 SAN PABLO AVENUE, ALBANY, CA September 2010

This report has been prepared by the staff of ProTech Consulting & Engineering (ProTech) under the supervision of our Registered Professional Engineer for this project whose stamp and signature appear below.

This report has been prepared by ProTech for the exclusive use of ProTech and Kelly Moore Paints (client) and not for use by any other party. Any use by a third party of any of the information contained in this report shall be at their own risk and shall constitute a release and an agreement to defend and indemnify ProTech from and against any and all liability in connection therewith whether arising out of ProTech's negligence or otherwise.

All interpretations, conclusions, and recommendations are based solely on information gathered during this investigative stage and on no other unspecified information. This report is prepared as a tool for the client to use in determining the condition of the site. This report makes no certification, either implied or otherwise, that the site is free from pollution; it simply reports the findings of the study. Water sampling, while being less sample-specific than soil sampling, is still area-specific and if contaminants are not found in a sample it does not universally suggest that there are none of these contaminants present in that area or at the site.

The results and findings contained in this report are based on certain information from sources outside the control of ProTech. While exercising all reasonable diligence in the acceptance and use of information provided, ProTech does not warrant or guarantee the accuracy thereof. The report was developed specifically for this project (969 San Pablo, Albany, California) and should not be used for any other site.

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Dr. C. Hugh Thompson, P.E. Civil Engineer



Sherwood Lovejoy, **M**., REA Environmental Assessor

Ryan Cozart Geologist

#### **ABBREVIATIONS**

ACHCSA = Alameda County Health Care Services Agency Aromatics = Benzene, Toluene, Ethyl-Benzene, and Xylenes (BTEX) EHS = Environmental Health Services FOx = Fuel Oxygenates KMPC = Kelly Moore Paint Company MTBE = Methyl tert-Butyl Ether ND = Not Detected ProTech = ProTech Consulting & Engineering PHCs = Petroleum Hydrocarbons rESL = residential Environmental Screening Level RL = Reporting Limit TA = Test America, Inc. TEPH-d = Total Extractable Petroleum Hydrocarbons, as diesel TPH-g = Total Petroleum Hydrocarbons, as gasoline VOCs = Volatile Organic Compounds

#### <u>1.0 - PROJECT BACKGROUND</u>

#### **<u>1.1 - INTRODUCTION</u>**

ProTech Consulting & Engineering, Inc. (ProTech) was retained (August 2009) by Kelly-Moore Paint Company (KMPC) to perform Semi-annual groundwater monitoring and reporting at 969 San Pablo Avenue, Albany, California (site). ProTech has performed multiple tasks on this site, including: Phase I - Environmental Site Assessment, hydraulic lift removal, soil boring and groundwater monitor well installation, and groundwater monitoring. The last groundwater monitoring was performed in March 2010 and before that September 2009<sup>1</sup>. Three GWM reports, including this, have been forwarded to Alameda County Health Care Services Agency – Environmental Health Services (ACHCSA-EHS) with no response. The work reported as follows was recently<sup>2</sup> required by the ACHCSA-EHS as a re-newed effort. Beyond requesting monitoring, the ACHCSA-EHS requested that KMPC register information with the State GeoTracker site and update the information according to State requirements. They did not request anything else or allude to pending closure of the site in the near future.

#### **1.2 - SITE DESCRIPTION**

The site is located in Albany, at the junction of San Pablo Avenue and Buchanan Street (Figure 1). A commercial building was converted from a vehicle maintenance operation to a retail paint store. The site consists of one building that is L-shaped and parking lots both in front and along the side of the building (Figure 2). The site is fully capped with a building slab and concrete parking, other than small planter box areas The existing groundwater monitor wells are located along the west side (front) and on the north side (end) of the building, along San Pablo Avenue (Figure 2). The two most recent well locations (MW-5 and MW-6) were selected based upon existing well locations (MW-2 through MW-4), position of former underground storage tank, and former land uses. The locations were approved by the ACHCSA-EHS prior to installation.

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<sup>&</sup>lt;sup>1</sup> Before the September 2009 sampling, almost ten years had passed between GWM events. Monitoring was discontinued because the ACHCSA-EHS was not responding to the GWMRs filed by KMPC, including questions and requests for guidance.

<sup>&</sup>lt;sup>2</sup> 07/24/09 letter: "The California State Water Resources Control Board (State Water Board) has approved Resolution No. 2009-0042 (Actions to Improve Administration of the UST Cleanup Fund and UST Cleanup Program). Resolution No. 2009-0042 states that, "Regional Water Board and LOP agencies shall reduce quarterly groundwater monitoring requirements to semiannual or less frequent monitoring at all site unless site-specific needs warrant otherwise and shall notify all responsible parties of the new requirements no later than August 1, 2009. The groundwater monitoring wells at your site have not been monitored since September 2000. In accordance with Resolution No. 2009-0042, groundwater monitoring for your site is to be conducted on a semiannual basis unless site-specific needs warrant otherwise. The semiannual monitoring is to be conducted during the first and third quarters. Please present results from the semiannual groundwater monitoring in groundwater monitoring reports no later than 60 days following the groundwater sampling event."

#### <u>1.3 - SITE BACKGROUND</u>

The site is a former vehicle repair facility which was operated by Firestone Tire and Rubber until the early 1990 when it was sold to Super Shops, Inc. Super Shops operated it as vehicle repair and modification shop. Firestone operated a waste oil tank on the site until they removed it in May 1990 (ERM, 1990a).

Initially, chemicals of concern were defined by TCG and accepted by the Agencies to included: [total extractible petroleum hydrocarbons, characterized as diesel (TEPH-d); oil and grease (O&G); benzene, toluene, ethyl-benzene, and Xylenes (BTEX); 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethane (1,1-DCA), 1,1,1-trichloroethane (1,1,1-TCA), and Tetrachloroethylene (PCE); chromium Cr), lead (Pb), and nickel (Ni)] which were found during the tank removal (ERM, 1990a).

Well MW-4, (down gradient and away from existing buildings), and to a lesser extent well MW-5 have consistently shown constituents of potential concern (COPC) during the monitoring from 1998 to 2000. The other wells have either not shown COPCs (MW-2) or sporadic detections (MW-3 and MW-6) during this period. MW1 was destroyed years ago during soil excavation activities to remediate shallow polluted soils.

## 1.4 - ACHCSA-EHS CONCERNS

The ACHCSA-EHS reviewed ProTech's reports from April 1998 and March 1999 and prepared a comment letter. In this letter, they expressed concern about:

- The concentrations of the VOCs exceeded California MCLs.
- The status of well MW-2, and
- The limits of the former waste oil tank excavation with regard to wells MW-5 and MW-6.

ACHCSA-EHS directed KMPC to:

- Continue quarterly groundwater monitoring, with approval to remove TPH-g, TEPH-d, BTEX, and MTBE from the analyte list;
- Locate MW-2 or its remnants prior to resurfacing of the parking lot; and
- Plot the limits of the excavation on the site plan (ACHCSA-EHS, 1999b).

ProTech requested in writing that the drill cuttings be used on-site as fill material due to the lack of compounds of concern (ProTech, 1999c). ACHCSA-EHS agreed to allow this re-use of soil cuttings (ACHCSA-EHS, 1999b).

The second quarter of groundwater monitoring was performed on 16 June 1999. During reconnaissance and setup for sampling the four wells (MW-3, MW-4, MW-5, and MW-6) we discovered well MW-2. It had been buried under the planter along the north end of the building. We sampled all five wells. Well MW-2 did not contain any of the compounds tested. The other four wells (MW-3, MW-4, MW-5, and MW-6) all contained 1,1-DCA, and PCE, while wells MW-5 and MW-6 contained chloroform and TCE also. Well MW-4 also contained 1,1-DCE,

cis-1,2-DCE, and vinyl chloride. California MCLs continued to be exceeded in well MW-4 for 1,1-DCA, cis-1,2-DCE, PCE, TCE and vinyl chloride, and in well MW-5 for 1,1-DCA. Well MW-2 was surveyed for TOC elevation. ProTech requested verbally that SVOCs be removed from the analyte list for quarterly monitoring since they had not been detected in previous monitoring events (ProTech, 1999c).

The County reviewed the ProTech QMR, including a proposed risk management assessment to close the site, and prepared a comment letter (ACHCSA-EHS, 1999c). In this letter, they expressed concern that:

- "Risk Management Plan (RMP) may essentially allow for a reduced frequency in groundwater monitoring, however it would not include closure for the site" based on fact that concentrations of VOCs continue to exceed California MCLs.
- "analysis for SVOCs may be discontinued due to Non Detect results from past sampling event. It appears that you have already taken the initiative to discontinue the analysis for SVOCs, based on the fact that this monitoring event did not include the analysis for these constituents";
- "future groundwater monitoring reports, and any additional reports or Workplans, shall include an attached cover letter, signed by a representative of your company (KMPC) acknowledging that the company has read the report and agrees to any recommendations or proposals"; and
- "future groundwater monitoring reports include copies of field data sheets showing levels of turbidity, noting odors, percent recharge in wells when samples were collected, pH, temperature, etc."

The third quarter of groundwater monitoring was performed on 15 September1999. We sampled all five wells. Well MW-2, again, did not contain any of the compounds tested. The other four wells (MW-3, MW-4, MW-5, and MW-6) contained 1,1-DCA, PCE, and TCE, while MW-4 also contained 1,1-DCE, cis-1,2-DCE, and vinyl chloride. California MCLs continue to be exceeded in well MW-4 for 1,1-DCA, cis-1,2-DCE, PCE, and vinyl chloride, while in well MW-5 1,1-DCA is above its MCL, and in well MW-6 PCE is above its MCL (ProTech, 1999d).

The County did not prepare a response letter to the third quarter monitoring report. The ACHCSA-EHS has been provided information to know the depth of these wells. City and County ordinances prohibit use of shallow ground water for drinking and require well casings to be sealed below the depth of the wells.

The fourth quarter of groundwater monitoring was performed on 15 December 1999. We sampled all five wells. Well MW-2, again, did not contain any of the compounds tested. The other four wells (MW-3, MW-4, MW-5, and MW-6) contained 1,1-DCA, PCE, and TCE, while MW-4 also contained cis-1,2-DCE. California MCLs continue to be exceeded in well MW-4 for 1,1-DCA, cis-1,2-DCE, and PCE, while in well MW-5 1,1-DCA is above its MCL, and in well MW-6 PCE is above its MCL (ProTech, 2000a).

The County did not prepare a response letter to the fourth quarter monitoring report. We contacted the County a week before the March 2000 monitoring was scheduled and learned that

the County case officer had been changed for this project. During this teleconference, and several more telephone exchanges over the next week, we also negotiated the method of purging that had been requested in the fourth quarter 1999 monitoring report. The negotiated method was a slow purge effort ensuring the wells were not dewatered during the removal of one wellbore volume from each well.

No response or guidance from the ACHCSA-EHS reviews of four submitted reports lead to a nine-year hiatus in monitoring. With no direction provided to KMPC or technical comments provided on submitted reports, field actions were suspended by KMPC.

At the request of ACHCSA-EHS, sampling was resumed and the September 2009 report presents the results of the first semi-annual groundwater monitoring for 2009 (25 September 2009). The request for continued work included no justification provided by ACHCSA-EHS pertaining to the lack of direction on past work nor the description of current conditions justifying the importance of resuming monitoring. Four wells were sampled during this GWM event (MW-2, MW-3, MW-4, and MW-5). MW-6 was not sampled because it could not be located. MW-2, again, and MW-3 did not contain any of the compounds tested. MW-4 contained 1,1-DCA, cis-1,1 DCE, PCE, and TCE above the residential Environmental Screening Levels (rESLs). MW-5 (MCLs).

# 2.0 - GROUNDWATER MONITORING – SEPTEMBER 2010

## 2.1 - INTRODUCTION

At the request of ACHCSA-EHS, ProTech performed the second 2010 GWM at 969 San Pablo Avenue, Albany, CA (second in a series of two GWMs) on 28 September 2010. The County approved scope-of-work for this GWM is outlined below:

- 1. Measure the depth-to-groundwater (DTW) and total depth (TD) in each of the groundwater monitor wells;
- 2. Purge each well prior to collecting a groundwater sample for analysis;
- 3. Analyze each of the groundwater samples for Halogenated Hydrocarbons by EPA Method 8260 with EPA 8010 list
- 4. Prepare a groundwater monitoring report that includes the results of DTW measurements, and groundwater sample analysis. The report will include:
  - Tables showing tabulated DTW, development and purge parameters, groundwater elevations, and analytical results;
  - Figures illustrating groundwater flow direction; and
  - Appendix that includes laboratory reported results and chain-of-custody (COC) forms.

The fieldwork and laboratory analysis tasks are completed. This document represents the report task of the project.

## 2.2 - ELEVATION MEASUREMENTS

DTW and TD measurements for each monitoring well were recorded by ProTech on 28 September 2010. The locations of the wells are shown on Figure 2<sup>3</sup>. During this monitoring event, DTW was measured between 9.30 (MW-3) and 9.79 (MW-5) feet below the top of the monitor well casings (TOC) with the corresponding elevations being 32.19 feet above mean sea level (ft-amsl) [MW-3] and 31.92 ft-amsl [MW-5]. Groundwater level data for the site are included in Table 1.

The groundwater elevation measurements recorded for this monitoring event were used to construct an inferred groundwater flow direction map with gradient included as Figure 3. For a lot this small, determining the actual ground water velocity and direction of this shallow system is of questionable feasibility. Figure 4 represents an interpretation of the potential groundwater elevation contour map. According to the EPA On-line Tools for Site Assessment Calculation<sup>4</sup>,

**ProTec** 

<sup>&</sup>lt;sup>3</sup> Well MW-6 was not located during this event. Further reconnaissance will be undertaken.

<sup>&</sup>lt;sup>4</sup> <u>http://www.epa.gov/athens/learn2model/part-two/onsite/index.html</u>

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the average hydraulic gradient for this site is 0.006339 and the flow direction was  $217.9^{\circ}$  of north.<sup>5</sup>

#### 2.3 - GROUNDWATER WELL PURGING & SAMPLING

We calculated the total wellbore water volume using the DTW and TD measurements to determine the volume of groundwater removal from each well<sup>6</sup>. Usually, at least three wellbore volumes are removed, unless the wells are low-flow wells. These calculations are shown in Table 2.

ProTech purged the wells using a 2-stage purge/sampling pump. We dedicated the down-hole tubing to each well and do not handle or clean this tubing between events so it does not need cleaning, thus preventing cross-contamination. We cleaned the purge/sampling pump, using a triple-rinse setup<sup>7</sup>, between wells<sup>8</sup>. This system has been proven to produce ND results when there are no pollutants. ProTech purged one well bore volume and a low rate at each well to insure the wells did not dewater. This method is approved by the ACHCSA for low flow wells. Once purged, ProTech sampled groundwater in the appropriate sample containers (3 - 40-ml VOA vials). We sealed the containers, checked for bubbles, labeled, and placed them on ice pending transport to the laboratory. No wells dewatered during this monitoring event. The purge volume and parameters are in Tables 2 and 3, respectively.

2.3.1 – MW-2

We removed approximately 4 gallons ( $\sim$ 1.25 wellbore volumes) from this well during purging. The well did not dewater. The pump was turned on and left running the entire time. The water was clear the entire time and clear samples were collected. The purge water was placed in a 55-gallon drum on-site and there were no bubbles in the unpreserved VOA vials<sup>9</sup>.

<sup>&</sup>lt;sup>5</sup> This gradient might be visualized, as the ground water surface is sloped at 2.8 feet per 100 ft that would contribute to a noticeable ground water velocity. Deeper wells covering large areas of a regional aquifer system would more likely justify these calculations.

<sup>&</sup>lt;sup>6</sup> We determine the volume of groundwater that needs removal from each well by finding the water column height (WCH) using [DTW-TD=WCH], then determine the cubic feet (ft<sup>3</sup>) using [WCH\* $\Pi$ \*r<sup>2</sup>], and then convert ft<sup>3</sup> to gallons using [ft<sup>3</sup> \* 7.48].

 $<sup>^{7}</sup>$  A triple-rinse setup is three buckets, the first with water and TSP, the second with water, and the third with DI water. The pump is soaked and scrubbed with a scrub brush in the first bucket to remove contaminants. We rinse the pump vigorously in the second bucket, and again in the third bucket. TCG rinses the buckets and refills them after each decontamination event.

<sup>&</sup>lt;sup>8</sup> During purging, we measure the parameters: pH, conductivity, and temperature, while we observe clarity or turbidity of water. We monitor parameters a few gallons after commencement of pumping, at the mid-point, and at the end-point of pumping.

<sup>&</sup>lt;sup>9</sup> Unpreserved VOA vials were used due to bubble formation in the preserved VOA vials.

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## 2.3.2 - MW-3

We removed approximately 4 gallons (~1.25 wellbore volumes) from this well during purging. The well did not dewater. The pump was turned on and left running the entire time. The water was clear the entire time and clear samples were collected. The purge water was placed in a 55gallon drum on-site and there were no bubbles in the unpreserved VOA vials.

## 2.3.3 - MW-4

We removed approximately 4 gallons (~1.25 wellbore volumes) from this well during purging. The well did not dewater. The pump was turned on and left running the entire time. The water was clear the entire time and clear samples were collected. The purge water was placed in a 55gallon drum on-site and there were no bubbles in the unpreserved VOA vials.

#### 2.3.4 - MW-5

We removed approximately 7 gallons ( $\sim$ 1 wellbore volumes) from this well during purging. The well did not dewater. The pump was turned on and left running the entire time. Water was clear the entire time and clear samples were collected. The purge water was placed in a 55-gallon drum on-site and there were no bubbles in the unpreserved VOA vials.

#### 2.3.5 - MW-6

Well MW-6 was not located during this GWM event. Much of the shrubbery has grown during the last 10 years and with inclement weather we were not prepared to search for the well.

## 2.4 - ANALYTICAL RESULTS<sup>10</sup>

A courier from Test America (TA), the California-certified laboratory met ProTech at the site to pick up the samples for delivery, under COC protocols, to TA's Pleasanton laboratory for analysis. TA analyzed the groundwater samples for Halogenated Hydrocarbons by EPA 8260 and reported the EPA 8010 list<sup>11</sup>. The results are discussed below and tabulated in Table 1. The Laboratory Results and COC form are included in Appendix 1.<sup>12</sup>

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<sup>&</sup>lt;sup>10</sup> In reviewing these data, the County may wish to consider that sampling this very shallow ground water in an old urban area (where the shallow soils have been repeatedly disturbed or imported) would be unlikely to represent the quality of any beneficially useful groundwater. Other sites in the Bay Area have been granted closure with pollutants at higher concentrations than at this site. <sup>11</sup> E8260 is the method used for analysis, while the 8010 list are the compounds reported.

<sup>&</sup>lt;sup>12</sup> In Appendix 1, detected results are either red ( $\geq$  rESL), or not (< rESL or not established [NE]).

## 2.4.1 - MW-2

The results of analysis indicate that all compounds tested were below their Reporting Limits (RLs). Therefore below the MCLs.

2.4.2 – MW-3

The results of analysis indicate that all compounds tested were below their RLs. Therefore below the MCLs.

## 2.4.3 – MW-4

The results of analysis indicate that:

- 1,1-DCA was detected at 25 ug/L with an RL of 2 ug/L, which is > its MCL,
- cis-1,2-DCE was detected at 8 ug/L with an RL of 1 ug/L, which is > its MCL,
- TCE was detected at 6.6 ug/L with an RL of 1 ug/L, which is > its MCL, and
- PCE was detected at 20 ug/L with an RL of 1 ug/L, which is > its MCL.

All other compounds tested were below their RLs.

## 2.4.4 – MW-5

The results of analysis indicate that:

• PCE was detected at 2.1 ug/L with an RL of 1 ug/L, which is below its MCL.

All other compounds tested were below their RLs.

2.4.5 – MW-6

MW-6 was not located during this GWM event.

# 2.5 – MAXIMUM CONTAMINANT LEVEL COMPARISON

Below is a table showing the detected results, by well, and the MCLs for those compounds<sup>13</sup>. The MCLs are regulatory limits for drinking water. From common practice, they have become

<sup>&</sup>lt;sup>13</sup> These limits can be found in the Environmental Screening Levels, using the MCL-priority levels for groundwater. *Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater* (November 2007), San Francisco Bay Regional Water Quality Control Board, California EPA.

similar to "default cleanup standards for groundwater". When a constituent is detected in more than one analysis, then the highest result is used for comparison.

| <b>COMPARISON OF RESULTS TO MAXIMUM CONTAMINANT LEVELS (MCLs)</b>  |  |                     |                     |           |                  |  |  |  |  |  |
|--|--|---------------------|---------------------|-----------|------------------|--|--|--|--|--|
| Constituent  | MW-2   | MW-3                | MW-4                | MW-5      | MCL <sup>1</sup> |  |  |  |  |  |
| 1,1-DCA  | 1,1-DCA ND ND 25 ND 5  |                     |                     |           |                  |  |  |  |  |  |
| 1,1-DCE  | CE ND ND ND ND 6   |                     |                     |           |                  |  |  |  |  |  |
| cis-1,2-DCE ND ND 8 ND 6   |  |                     |                     |           |                  |  |  |  |  |  |
| PCE   ND   ND   20   2.1   5   |  |                     |                     |           |                  |  |  |  |  |  |
| TCE  | ND   | ND                  | 6.6                 | ND        | 5                |  |  |  |  |  |
| VC   | ND   | ND                  | ND                  | ND        | 0.5              |  |  |  |  |  |
| Notes:   |  |                     |                     |           |                  |  |  |  |  |  |
| $^{1} = MCL$ -priority   |  |                     |                     |           |                  |  |  |  |  |  |
| Results in ug/L, M   | CLs in ug/L  |                     |                     |           |                  |  |  |  |  |  |
| <b>Bold = Detected</b>   |  |                     |                     |           |                  |  |  |  |  |  |
| Bold Italics = ≥ rESL  |  |                     |                     |           |                  |  |  |  |  |  |
| Citation: Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (November |  |                     |                     |           |                  |  |  |  |  |  |
| 2007),   | 2007), San Francisco Bay Regional Water Quality Control Board, California EPA, |                     |                     |           |                  |  |  |  |  |  |
| http://ww  | w.waterboards.ca.go  | ov/sanfranciscobay/ | esl.htm (updated: M | ay 2008). |                  |  |  |  |  |  |

As illustrated in the above table, 1,1-DCA, cis-1,2-DCE, TCE, and PCE all exceed their MCLs in MW-4. MW-5 had detections of 1,1-DCA and PCE, but all are below their MCLs.

The following Table shows the detected result, the corresponding MCL, and the multiple of the MCL. In urban areas there is a disparity of VOCs, based on numerous issues.<sup>14</sup>

| Analytical Results Multiple Over (Under) MCLs |                         |                   |      |        |  |  |  |  |  |  |
|---|-------------------------|-------------------|------|--------|--|--|--|--|--|--|
| Well #  | Constituent             | Analytical Result | MCL* | X rESL |  |  |  |  |  |  |
| MW-4  | 1,1-DCA                 | 25                | 5    | 5.00   |  |  |  |  |  |  |
|   | cis-1,2-DCE             | 8                 | 6    | 1.33   |  |  |  |  |  |  |
|   | PCE                     | 20                | 5    | 4.00   |  |  |  |  |  |  |
|   | TCE                     | 6.6               | 5    | 1.32   |  |  |  |  |  |  |
|   |                         |                   |      |        |  |  |  |  |  |  |
| Notes:  |                         |                   |      |        |  |  |  |  |  |  |
| * = MCL-Priority                              |                         |                   |      |        |  |  |  |  |  |  |
| X MCL = Analytical F                          | Result multiple of rESL |                   |      |        |  |  |  |  |  |  |

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<sup>&</sup>lt;sup>14</sup> Breton W. Bruce, Peter B. McMahon, Shallow ground-water quality beneath a major urban center: Denver, Colorado, USA, Journal of Hydrology, Volume 186, Issues 1-4, 15 November 1996, Pages 129-151, ISSN 0022-1694, DOI: 10.1016/S0022-1694 (96) 03031-4. (http://www.sciencedirect.com/science/article/B6V6C-3VWNHTW-7/2/92dbeac9f091db245bbd4c18e4f0258f)

# 3.0 – OBSERVATIONS, CONCLUSIONS, AND RECOMMENDATIONS

## 3.1 - OBSERVATIONS

The results of groundwater analysis indicate that MW-4 and MW-5 show consistent pollution but only MW-4 shows levels above the ESLs. MW-4 contained 1,1-DCA at 25 ug/L, c-1,2-DCE at 8 ug/L, PCE at 20 ug/L, and TCE at 6.6 ug/L (all above their respective ESLs). MW-5 contained PCE at 2.1 ug/L, which is below its ESL. MW-2 and MW-3 were ND for all compounds analyzed and MW-6 was not found during this GWM event.<sup>15</sup>

Table 2 shows calculations and observations of ProTech's well purging practice. The parameters of pH, conductivity, and temperature were measured during purging (Table 3) and indicate that, there is some stabilization before sampling. A parameter comparison table is included as Table 4. The samples were consistent with the Chain-of-Custody (COC). There were no bubbles were reported in the TA checklist.

The on-site inferred groundwater flow direction and gradient, according to EPA On-line Tools for Site Assessment Calculation, is towards the southwest (217.9° of north), with an average hydraulic gradient of 0.006339 (Table 4).

Monitor well MW-6 was not located during this GWM.

## 3.2 - CONCLUSIONS

From the above observations, and our history with the site, we formed the following conclusions:

- 1. There continues to be no threat to public health from direct exposure (area paved), inhalation (no odors lots of air movement), or from drinking water, as shallow groundwater (<50 fbg) is not allowed for consumptive use and is too shallow due to normal sanitation hazards. In addition the area has been and continues to be supplied by municipal water service that draws water not from this vicinity,
- 2. As an offset the Beneficial Use and non-degradation policies of the State, natural attenuation and degradation of constituents, already accepted by California Regulatory Agencies at other sites, has been recommended by Senate Bill 1764 Advisory Committee Recommendations Report.<sup>16</sup>,
- 3. Figures 5 and 6 show the historic concentrations of 1,1-DCA, c1,2-DCE, PCE, TCE, and VC. All of these constituents, except PCE are trending downward (near or at their lows

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<sup>&</sup>lt;sup>15</sup> The County may wish to consider the facts that the up gradient wells closer to the former sources do not support positive findings, while the down gradient wells closer to buried utilities and adjacent property appear to be maintaining higher levels of COPCs. It is common for sewers to leak VOCs and groundwater VOCs can be found in the presence of Nitrate, Nitrite, and fecal coliform.

<sup>&</sup>lt;sup>16</sup> Section 8 – Beneficial Use Designations and Water Quality Objectives, pp 12.

in the most recent sampling) from all the data collected since 1998,

- 4. PCE is at the top of the degradation sequence, not at the bottom, indicating that there may be another source of at least PCE, on- or off-site, other than the waste oil tank that was removed. Other urban sites. Sacramento County, South Lake Tahoe, etc have found that a primary source of PCE soil and shallow ground water pollution is exfiltration of sewers that have been or are being used to carry rinse water containing PCE away from dry cleaners connected to these government owned utilities. The CVWQCB has required the Sacramento County Sewer District to investigate and remediate PCE leaking from sewers,
- 5. Given the groundwater flow direction and the results of wells MW-2, MW-3, and MW-5, it is not unreasonable to consider a source just down-gradient of MW-4 such as the concrete sewer that is more likely than not leaking.

#### 3.3 - RECOMMENDATIONS

- 1. Halt further sampling and analysis until the County responds to questions raised in the last three reports and demonstrates it has considered (in depth) the observations and conclusions offered in this report.
- 2. Obtain written guidance from ACHCSA for the basis and a definition of the specific soil or groundwater concerns existing at this site that justify further investigation or remediation.
- 3. If justified, continue the GWM for the next semi-annual period (March 2011) with a decision paper evaluation of site conditions and requirements after the event. Hopefully this effort could involve KMPC and ACHCSA with the object being to reach a consensus to:
  - a. Come up with reasons why MW-4 is so much higher than the other site wells, like nearby potential sources off the property, and
  - b. Start preparing Site Conceptual Model (SCM) in advance of requesting closure.

#### 4.0 - REFERENCES

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<u>TABLES</u>

|         | Table 1 - Groundwater Elevation Measurement and Analytical Results |   |                   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
|---------|--|---|-------------------|---------------------|-----------------|--------|---------|-----------|---------------|-------|------------|------|---------------|-----------------|--------------|-----------------|---------------|-----------|----------|
|         | Keny-woore Paint Company<br>969 San Pablo Avenue Albany CA         |   |                   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
|         |  |   |                   |                     |                 |        |         | ProTech P | roject #218-C | DH10  |            |      |               |                 |              |                 |               |           |          |
|         |  |   |                   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| WELL #  | DATE   | TOC   | DTW               | GW-ELEV             | ∆-Elev          | Chlfrm | 1,1-DCA | 1,1-DCE   | c1,2-DCE      | PCE   | TCE        | VC   | TPH-g         | TEPH-d          | Ben          | Tol             | E-Ben         | Xyl       | MTBE     |
|         | 00//0/00   |   |                   |                     | 1               |        |         |           |               |       |            |      |               |                 |              |                 |               |           | 1        |
| MW-2    | 06/16/99   | 42.14                                       | 8.36              | 33.78               | 0.90            | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA<br>NA  | NA NA    |
|         | 12/15/99   | 42.14                                       | 9.25              | 33.78               | (0.89)          | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA<br>NA      | NA<br>NA        | NA<br>NA     | NA<br>NA        | NA<br>NA      |           | NA<br>NA |
|         | 03/16/00   | 42.14                                       | 5.18              | 36.96               | (3.18)          | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/25/09   | 42.14                                       | 8.35              | 33.79               | 3.17            | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 03/29/10   | 42.14                                       | 5.49              | 36.65               | 2.86            | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/28/10   | 42.14                                       | 9.64              | 32.50               | (4.15)          | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 0.1/0.1/0.0  |   | =                 |                     | 1               |        |         |           |               |       |            |      |               |                 |              |                 |               |           | 1 110    |
| IVIVV-3 | 04/21/98   | 41.49                                       | 7.33              | 34.16               | (1.72)          | ND     | 1.20    | ND        | ND            | 1.70  | 1.60       | ND   |               | ND              | ND           | ND              | ND            |           |          |
|         | 06/16/99   | 41.49                                       | 7.95              | 33.54               | 2 35            | ND     | 1.20    | ND        |               | 1.70  | 2.30       | ND   | NA NA         | NA              | NA           | NA NA           | NA NA         | NA NA     | NA       |
|         | 09/15/99   | 41.49                                       | 8.73              | 32.76               | 0.78            | ND     | 1.40    | ND        | ND            | 1.60  | 1.90       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 12/15/99   | 41.49                                       | 8.36              | 33.13               | (0.37)          | ND     | 0.97    | ND        | ND            | 1.00  | 0.98       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 03/16/00   | 41.49                                       | 5.05              | 36.44               | (3.31)          | ND     | 1.20    | ND        | ND            | 1.60  | 2.00       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/25/09   | 41.49                                       | 8.80              | 32.69               | 3.75            | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 03/29/10   | 41.49                                       | 7.14              | 34.35               | 1.66            | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/28/10   | 41.49                                       | 9.30              | 32.19               | (2.16)          | ND     | ND      | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA NA           | NA            | NA        | NA NA    |
| MW-4    | 04/21/98   | 41 15                                       | 7.52              | 33.63               | 1               | ND     | 34.00   | ND        | 5 30          | 3.60  | ND         | ND   | ND            | ND              | ND           | ND              | ND            | ND        | ND       |
| 10100-4 | 03/29/99   | 41.15                                       | 7.50              | 33.65               | (0.02)          | ND     | 84.00   | 1.50      | 25.00         | 18.00 | 6.50       | 3.10 | ND            | ND              | ND           | ND              | ND            | ND        | ND       |
|         | 06/16/99   | 41.15                                       | 8.73              | 32.42               | 1.23            | ND     | 76.00   | 1.30      | 23.00         | 20.00 | 6.40       | 2.40 | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/15/99   | 41.15                                       | 9.18              | 31.97               | 0.45            | ND     | 61.00   | 0.74      | 18.00         | 16.00 | 4.40       | 0.91 | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 12/15/99   | 41.15                                       | 8.95              | 32.20               | (0.23)          | ND     | 37.00   | ND        | 11.00         | 5.70  | 2.50       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 03/16/00   | 41.15                                       | 8.80              | 32.35               | (0.15)          | ND     | 58.00   | 0.84      | 18.00         | 10.00 | 44.00      | 1.20 | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/25/09   | 41.15                                       | 9.30              | 31.85               | 0.50            | ND     | 33.00   | ND        | 12.00         | 15.00 | 6.70       | ND   | NA            | NA              | NA           | NA              | NA            |           | NA NA    |
|         | 03/29/10   | 41.15                                       | 0.35              | 33.55               | 1.70            |        | 25.00   | ND        | 9.20          | 21.00 | 6.70       |      | NA<br>NA      | NA<br>NA        | NA<br>NA     | NA<br>NA        | NA<br>NA      |           | NA<br>NA |
|         | 09/26/10   | 41.15                                       | 9.55              | 31.00               | (1.75)          | I ND   | 25.00   | ND        | 0.00          | 20.00 | 0.00       |      |               | INA             | INA          | INA             | I NA          | INA       | I NA     |
| MW-5    | 03/29/99   | 41.71                                       | 8.14              | 33.57               |                 | 0.97   | 5.30    | ND        | ND            | 1.60  | 1.60       | ND   | ND            | ND              | ND           | ND              | ND            | ND        | ND       |
|         | 06/16/99   | 41.71                                       | 8.91              | 32.80               | 0.77            | 0.63   | 4.80    | ND        | ND            | 1.50  | 1.80       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/15/99   | 41.71                                       | 9.20              | 32.51               | 0.29            | ND     | 6.40    | ND        | ND            | 1.80  | 1.80       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 12/15/99   | 41.71                                       | 8.86              | 32.85               | (0.34)          | ND     | 6.70    | ND        | ND            | 1.50  | 1.40       | ND   | NA            | NA              | NA           | NA              | NA            |           | NA NA    |
|         | 03/16/00   | 41.71                                       | 8.30              | 33.41               | (0.56)          | 0.61   | 5.30    | ND        | ND<br>0.76    | 1.30  | 1.10       | ND   | NA<br>NA      | NA<br>NA        | NA           | NA              | NA<br>NA      |           | NA<br>NA |
|         | 03/29/10   | 41.71                                       | 8.33              | 33.38               | 1.59            | ND     | 4.60    | ND        | 0.70          | 1.50  | 0.00       | ND   | NA<br>NA      | NA              | NA           | NA              | NA<br>NA      |           | NA       |
|         | 09/28/10   | 41.71                                       | 9.79              | 31.92               | (1.46)          | ND     | 2.10    | ND        | ND            | ND    | ND         | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         |  |   |                   |                     | (               |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| MW-6    | 03/29/99   | 42.04                                       | 7.74              | 34.30               |                 | 0.78   | 1.40    | ND        | ND            | 6.80  | 0.80       | ND   | ND            | ND              | ND           | ND              | ND            | ND        | ND       |
|         | 06/16/99   | 42.04                                       | 9.25              | 32.79               | 1.51            | ND     | 1.40    | ND        | ND            | 5.30  | 0.80       | ND   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/15/99   | 42.04                                       | 9.71              | 32.33               | 0.46            | ND     | 1.80    | ND        | ND            | 6.20  | 0.87       | ND   | NA            | NA              | NA           | NA              | NA            |           | NA NA    |
|         | 03/16/00   | 42.04                                       | 9.00              | 34.66               | (0.71)          | ND     | 1.20    | ND        | ND            | 4.60  | 0.56       | ND   | NA<br>NA      | NA<br>NA        | NA<br>NA     | NA<br>NA        | NA<br>NA      |           | NA<br>NA |
|         | 09/25/09   | 42.04                                       | NM                | NM                  | (1.02)          | NA     | NA      | NA        | NA            | NA    | 0.74<br>NA | NA   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 03/29/10   | 42.04                                       | NM                | NM                  |                 | NA     | NA      | NA        | NA            | NA    | NA         | NA   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         | 09/28/10   | 42.04                                       | NM                | NM                  |                 | NA     | NA      | NA        | NA            | NA    | NA         | NA   | NA            | NA              | NA           | NA              | NA            | NA        | NA       |
|         |  |   |                   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| Notes:  | TOC = top of cas   | sing elevation (ft                          | above mean sea    | level - [ft-amsl])  |                 |        |         |           |               |       |            |      | TPH-g = tota  | I petroleum h   | ydrocarbons  | , as gasoline ( | (MDL-50 ppb)  |           |          |
|         | D I VV = depth to  | water (ft below 1)                          | UC)               |                     |                 |        |         |           |               |       |            |      | IEPH-0 = to   | tal extractible | petroleum n  | ydrocarbons,    | as diesel (ML | L-50 ppb) |          |
|         | D-Elev = change  | in elevation (ft) f                         | from one GWM to   | the next            |                 |        |         |           |               |       |            |      | Tol = toluene | (MDL-0.5        | pp)          |                 |               |           |          |
|         | All results report   | ed in narts-ner-hi                          | illion (nnh)      | J IIIE HEAL         |                 |        |         |           |               |       |            |      | F-Ben = ethy  | /l-henzene (N   | /D/-0.5 nnh) |                 |               |           |          |
|         | MCL = maximum  | contaminant lev                             | el (EPA and Cali  | fornia cited)       |                 |        |         |           |               |       |            |      | Xvl = xvlene  | s (o. m. p) (M  | DL-0.5 ppb)  |                 |               |           |          |
|         | Chlfrm = Chlorof   | orm (RL-0.5 ppb)                            | (MCL-80 ppb)      | ,                   |                 |        |         |           |               |       |            |      | MTBE = met    | hyl tert butyl  | ether (MDL-5 | i ppb)          |               |           |          |
|         | 1,1-DCA = 1,1-di   | chloroethane (RI                            | L-0.5 ppb) (MCL-  | 5 ppb [California]) | )               |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
|         | 1,1-DCE = 1,1-d  | ichloroethene (RI                           | L-0.5 ppb) (MCL-  | 7 ppb [EPA] 6 ppt   | o [California]) |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
|         | c1,2-DCE = cis 1   | ,2-dichloroethen                            | e (RL-0.5 ppb) (N | MCL-70 ppb [EPA]    | 6 ppb [Califor  | nia])  |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| 1       | PCE = tetrachlor   | oethene (RL-0.5                             | ppb) (MCL-5 ppt   | EPA & California    | a])             |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| 1       | ICE = trichloroe   | tnene (RL-0.5 pp                            | D) (MCL-5 ppb [E  | EPA & California)   |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| 1       |  | ue (r <l-u.5 (<br="" µµd)="">ad for</l-u.5> | INICE-2 PPD [EPA  | d ora hhn frailtotu | naj)            |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| 1       | NM = not measu   | red   |                   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| 1       | ND = not detecte   | d above method                              | detection limit   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |
| 1       | Bold =greater t  | on Colifornia M                             |                   |                     |                 |        |         |           |               |       |            |      |               |                 |              |                 |               |           |          |

| Table 2 - Wellbore Volume Calculations   Kelly-Moore Paint company   969 San Pablo Avenue, Albany, CA   ProTech Project #218-OH10  |      |       |       |        |         |          |          |        |      |  |  |
|--|------|-------|-------|--------|---------|----------|----------|--------|------|--|--|
| Well #   | DTW  | TD    | DH    | Well R | Well R2 | WV (ft3) | WV (gal) | VR (q) | TWV  |  |  |
| -  |      |       |       |        |         |          |          | (5/    |      |  |  |
| MW-2   | 9.64 | 14.52 | 4.88  | 0.17   | 0.03    | 0.43     | 3.18     | 4.00   | 1.26 |  |  |
| MW-3   | 9.30 | 14.18 | 4.88  | 0.17   | 0.03    | 0.43     | 3.18     | 4.00   | 1.26 |  |  |
| <br>MW-4   | 9.35 | 14.71 | 5.36  | 0.17   | 0.03    | 0.47     | 3.50     | 4.00   | 1.14 |  |  |
| MW-5   | 9.79 | 20.09 | 10.30 | 0.17   | 0.03    | 0.90     | 6.72     | 7.00   | 1.04 |  |  |
| MW-6   | NA   | NA    | NA    | NA     | NA      | NA       | NA       | NA     | NA   |  |  |
| IVIV-0 INA <t< td=""></t<> |      |       |       |        |         |          |          |        |      |  |  |

|               | Table 3 - Parameter Testing Results   Kelly-Moore Paint company   969 San Pablo Avenue, Albany, CA   ProTech Project #218-OH10    |   |             |          |          |  |  |  |  |  |
|---------------|---|---|-------------|----------|----------|--|--|--|--|--|
| Sampling Date | : 9/28/10   |   |             |          |          |  |  |  |  |  |
| Well #        | Interval(1)   | ~Gals   | рН          | Cond     | Temp     |  |  |  |  |  |
| M\\\/_2       | Start   | 1.00  | 8 90        | 4 30     | 65 10    |  |  |  |  |  |
| 10100-2       | End   | 4.00  | 8.60        | 2.93     | 64.70    |  |  |  |  |  |
| M\\/_3        | Start   | 1 00  | 7 80        | 1 20     | 67 30    |  |  |  |  |  |
| 10100-5       | End   | 4.00  | 7.80        | 4.15     | 69.20    |  |  |  |  |  |
|               | Chart   | 1.00  | 0.70        | 0.00     | <u> </u> |  |  |  |  |  |
| 10100-4       | End   | 4.00  | 6.70        | 6.67     | 67.50    |  |  |  |  |  |
|               |   |   |             |          | 1        |  |  |  |  |  |
| MW-5          | Start   | 1.00  | 7.50        | 7.19     | 67.30    |  |  |  |  |  |
|               | Middle  | 3.00  | 7.10        | 7.01     | 68.00    |  |  |  |  |  |
|               | End   | 7.00  | 6.90        | 6.48     | 68.70    |  |  |  |  |  |
| MW-6          | Start   | NA  | NA          | NA       | NA       |  |  |  |  |  |
|               | Middle  | NA  | NA          | NA       | NA       |  |  |  |  |  |
|               | End   | NA  | NA          | NA       | NA       |  |  |  |  |  |
| Notes:        | ~Gals = approximate gal<br>pH in standard units<br>Cond = Conductivity (µm<br>Temp = temperature (° F<br>(1) = wells dewatered du | lons removed at time of<br>ho/cm)<br>)<br>ring pumping, were ther | measurement | sampling |          |  |  |  |  |  |

http://www.epa.gov/athens/learn2model/part-two/onsite/gradient4plus-ns.html

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WCMS Last updated on April 24, 2010 FIGURES









#### MW-4 Historical Chemical Concentrations



Kelly Moore Paint Company, 969 San Pablo Avenue, Albany

| ProTech Consulting & Engineering<br>1208 Main Street, Redwood City, CA 94063<br>Tele: 650.569.4020 / Fax: 650.569.4023 | Job No. 2<br>Date 10 C<br>Drawn by | 18-OH10<br>october 2010<br>RC | Historical MW-4 Concentrations<br>Kelly-Moore Paint Company<br>696 San Pablo Avenue, Albany, CA<br>for: W.E. Berry<br>P.O. Box 3016, San Carlos, CA 94070 | Project | z | Figure <b>5</b> |
|--|------------------------------------|-------------------------------|---|---------|---|-----------------|
|  | <sup>Rev</sup> SL                  | Apprvd SL                     | P.O. Box 3016, San Ganos, CA 94070  |         | • |                 |

#### MW-5 Historic Chemical Concentrations

Kelly Moore Paint Company, 969 San Pablo Avenue, Albany











<u>APPENDIX 1 – LABORATORY REPORTS AND COC FORMS</u>



# **ANALYTICAL REPORT**

Job Number: 720-30863-1 Job Description: 969 San Pablo Ave Albany

For: ProTech Consulting and Engineering 1208 Main Street Redwood City, CA 94063 Attention: Mr. Woody Lovejoy

Jani A

Approved for release. Tim Costello Project Manager I 10/8/2010 3:32 PM

Designee for Surinder Sidhu Customer Service Manager surinder.sidhu@testamericainc.com 10/08/2010

CA ELAP Certification # 2496

The Chain(s) of Custody are included and are an integral part of this report.

The report shall not be reproduced except in full, without the written approval of the laboratory. The client, by accepting this report, also agrees not to alter any reports whether in the hard copy or electronic format and to use reasonable efforts to preserve the reports in the form and substance originally provided by TestAmerica.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.
Job Narrative 720-30863-1

#### Comments

No additional comments.

Receipt No analytical or quality issues were noted.

## SAMPLE SUMMARY

Client: ProTech Consulting and Engineering

Job Number: 720-30863-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time<br>Sampled | Date/Time<br>Received |
|---------------|------------------|---------------|----------------------|-----------------------|
| 720-30863-1   | MW-2             | Water         | 09/28/2010 0855      | 09/29/2010 0932       |
| 720-30863-2   | MW-3             | Water         | 09/28/2010 0922      | 09/29/2010 0932       |
| 720-30863-3   | MW-4             | Water         | 09/28/2010 1000      | 09/29/2010 0932       |
| 720-30863-4   | MW-5             | Water         | 09/28/2010 0948      | 09/29/2010 0932       |

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

## LABORATORY REPORT

Prepared For: TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu Project: 720-30863

Sampled: 09/28/10 Received: 10/01/10 Issued: 10/06/10 08:51

#### NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and

is an integral part of this report.

This entire report was reviewed and approved for release.

### SAMPLE CROSS REFERENCE

| LABORATORY ID | CLIENT ID | MATRIX |
|---------------|-----------|--------|
| ITJ0046-01    | MW-2      | Water  |
| ITJ0046-02    | MW-3      | Water  |
| ITJ0046-03    | MW-4      | Water  |
| ITJ0046-04    | MW-5      | Water  |

Reviewed By:

Saci

**TestAmerica Irvine** Steven Garcia Project Manager

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

| Analyte                              | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--------------------------------------|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-01 (MW-2 - Water) |           |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                |           |         |                    |                  |                    |                   |                  |                    |
| Benzene                              | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromobenzene                         | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromochloromethane                   | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromodichloromethane                 | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromoform                            | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromomethane                         | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| n-Butylbenzene                       | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| sec-Butylbenzene                     | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| tert-Butylbenzene                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Carbon tetrachloride                 | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chlorobenzene                        | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chloroethane                         | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chloroform                           | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chloromethane                        | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 2-Chlorotoluene                      | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 4-Chlorotoluene                      | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dibromo-3-chloropropane          | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Dibromochloromethane                 | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dibromoethane (EDB)              | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Dibromomethane                       | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dichlorobenzene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,3-Dichlorobenzene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,4-Dichlorobenzene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Dichlorodifluoromethane              | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1-Dichloroethane                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dichloroethane                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1.1-Dichloroethene                   | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| cis-1.2-Dichloroethene               | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| trans-1,2-Dichloroethene             | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dichloropropane                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,3-Dichloropropane                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 2,2-Dichloropropane                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| cis-1.3-Dichloropropene              | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| trans-1.3-Dichloropropene            | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1-Dichloropropene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Ethylbenzene                         | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Hexachlorobutadiene                  | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Isopropylbenzene                     | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| p-Isopropyltoluene                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Methylene chloride                   | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Naphthalene                          | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |

#### **TestAmerica** Irvine

THE LEADER IN ENVIRONMENTAL TESTING

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Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

### **VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

| Analyte                                   | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|---|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-01 (MW-2 - Water) - co | nt.       |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                     |           |         |                    |                  |                    |                   |                  |                    |
| n-Propylbenzene                           | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Styrene                                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,1,2-Tetrachloroethane                 | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,2,2-Tetrachloroethane                 | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Tetrachloroethene                         | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Toluene                                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,3-Trichlorobenzene                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,4-Trichlorobenzene                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,1-Trichloroethane                     | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,2-Trichloroethane                     | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Trichloroethene                           | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Trichlorofluoromethane                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,3-Trichloropropane                    | EPA 8260B | 10J0191 | 10                 | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,4-Trimethylbenzene                    | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,3,5-Trimethylbenzene                    | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Vinyl chloride                            | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| m,p-Xylenes                               | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| o-Xylene                                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Xylenes, Total                            | EPA 8260B | 10J0191 | 4.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Di-isopropyl Ether (DIPE)                 | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Ethyl tert-Butyl Ether (ETBE)             | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Methyl-tert-butyl Ether (MTBE)            | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| tert-Amyl Methyl Ether (TAME)             | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| tert-Butanol (TBA)                        | EPA 8260B | 10J0191 | 50                 | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Surrogate: 4-Bromofluorobenzene (80-120%) |           |         |                    | 97 %             |                    |                   |                  |                    |
| Surrogate: Dibromofluoromethane (80-120%) |           |         |                    | 109 %            |                    |                   |                  |                    |
| Surrogate: Toluene-d8 (80-120%)           |           |         |                    | 102 %            |                    |                   |                  |                    |

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Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

| Analyte                              | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--------------------------------------|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-02 (MW-3 - Water) |           |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                |           |         |                    |                  |                    |                   |                  |                    |
| Benzene                              | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromobenzene                         | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromochloromethane                   | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromodichloromethane                 | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromoform                            | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Bromomethane                         | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| n-Butylbenzene                       | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| sec-Butylbenzene                     | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| tert-Butylbenzene                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Carbon tetrachloride                 | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chlorobenzene                        | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chloroethane                         | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chloroform                           | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Chloromethane                        | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 2-Chlorotoluene                      | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 4-Chlorotoluene                      | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dibromo-3-chloropropane          | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Dibromochloromethane                 | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dibromoethane (EDB)              | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Dibromomethane                       | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dichlorobenzene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,3-Dichlorobenzene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,4-Dichlorobenzene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Dichlorodifluoromethane              | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1-Dichloroethane                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dichloroethane                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1-Dichloroethene                   | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| cis-1,2-Dichloroethene               | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| trans-1,2-Dichloroethene             | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2-Dichloropropane                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,3-Dichloropropane                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 2,2-Dichloropropane                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| cis-1,3-Dichloropropene              | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| trans-1,3-Dichloropropene            | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1-Dichloropropene                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Ethylbenzene                         | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Hexachlorobutadiene                  | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Isopropylbenzene                     | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| p-Isopropyltoluene                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Methylene chloride                   | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Naphthalene                          | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |

#### **TestAmerica** Irvine



THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

### **VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

| Analyte                                   | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|---|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-02 (MW-3 - Water) - co | nt.       |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                     |           |         |                    |                  |                    |                   |                  |                    |
| n-Propylbenzene                           | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Styrene                                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,1,2-Tetrachloroethane                 | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,2,2-Tetrachloroethane                 | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Tetrachloroethene                         | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Toluene                                   | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,3-Trichlorobenzene                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,4-Trichlorobenzene                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,1-Trichloroethane                     | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,1,2-Trichloroethane                     | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Trichloroethene                           | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Trichlorofluoromethane                    | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,3-Trichloropropane                    | EPA 8260B | 10J0191 | 10                 | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,2,4-Trimethylbenzene                    | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| 1,3,5-Trimethylbenzene                    | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Vinyl chloride                            | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| m,p-Xylenes                               | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| o-Xylene                                  | EPA 8260B | 10J0191 | 2.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Xylenes, Total                            | EPA 8260B | 10J0191 | 4.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Di-isopropyl Ether (DIPE)                 | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Ethyl tert-Butyl Ether (ETBE)             | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Methyl-tert-butyl Ether (MTBE)            | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| tert-Amyl Methyl Ether (TAME)             | EPA 8260B | 10J0191 | 5.0                | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| tert-Butanol (TBA)                        | EPA 8260B | 10J0191 | 50                 | ND               | 1                  | 10/3/2010         | 10/3/2010        |                    |
| Surrogate: 4-Bromofluorobenzene (80-120%) |           |         |                    | 98 %             |                    |                   |                  |                    |
| Surrogate: Dibromofluoromethane (80-120%) |           |         |                    | 109 %            |                    |                   |                  |                    |
| Surrogate: Toluene-d8 (80-120%)           |           |         |                    | 100 %            |                    |                   |                  |                    |

**TestAmerica** Irvine

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

| Analyte                              | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--------------------------------------|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-03 (MW-4 - Water) |           |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                |           |         |                    |                  |                    |                   |                  |                    |
| Benzene                              | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromobenzene                         | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromochloromethane                   | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromodichloromethane                 | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        | M1                 |
| Bromoform                            | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        | M1                 |
| Bromomethane                         | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| n-Butylbenzene                       | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| sec-Butylbenzene                     | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| tert-Butylbenzene                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Carbon tetrachloride                 | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        | M1                 |
| Chlorobenzene                        | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chloroethane                         | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chloroform                           | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chloromethane                        | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 2-Chlorotoluene                      | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 4-Chlorotoluene                      | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dibromo-3-chloropropane          | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Dibromochloromethane                 | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dibromoethane (EDB)              | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Dibromomethane                       | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dichlorobenzene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,3-Dichlorobenzene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,4-Dichlorobenzene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Dichlorodifluoromethane              | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1-Dichloroethane                   | EPA 8260B | 10J0226 | 2.0                | 25               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dichloroethane                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1-Dichloroethene                   | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| cis-1,2-Dichloroethene               | EPA 8260B | 10J0226 | 2.0                | 8.0              | 1                  | 10/4/2010         | 10/4/2010        |                    |
| trans-1,2-Dichloroethene             | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dichloropropane                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,3-Dichloropropane                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 2,2-Dichloropropane                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        | C, M1              |
| cis-1,3-Dichloropropene              | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| trans-1,3-Dichloropropene            | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1-Dichloropropene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Ethylbenzene                         | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Hexachlorobutadiene                  | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Isopropylbenzene                     | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| p-Isopropyltoluene                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Methylene chloride                   | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Naphthalene                          | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |

#### **TestAmerica** Irvine

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

| Analyte                                   | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|---|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-03 (MW-4 - Water) - co | nt.       |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                     |           |         |                    |                  |                    |                   |                  |                    |
| n-Propylbenzene                           | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Styrene                                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,1,2-Tetrachloroethane                 | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,2,2-Tetrachloroethane                 | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Tetrachloroethene                         | EPA 8260B | 10J0226 | 2.0                | 20               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Toluene                                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,3-Trichlorobenzene                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,4-Trichlorobenzene                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,1-Trichloroethane                     | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,2-Trichloroethane                     | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Trichloroethene                           | EPA 8260B | 10J0226 | 2.0                | 6.6              | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Trichlorofluoromethane                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,3-Trichloropropane                    | EPA 8260B | 10J0226 | 10                 | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,4-Trimethylbenzene                    | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,3,5-Trimethylbenzene                    | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Vinyl chloride                            | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| m,p-Xylenes                               | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| o-Xylene                                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Xylenes, Total                            | EPA 8260B | 10J0226 | 4.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Di-isopropyl Ether (DIPE)                 | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Ethyl tert-Butyl Ether (ETBE)             | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Methyl-tert-butyl Ether (MTBE)            | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| tert-Amyl Methyl Ether (TAME)             | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| tert-Butanol (TBA)                        | EPA 8260B | 10J0226 | 50                 | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Surrogate: 4-Bromofluorobenzene (80-120%) |           |         |                    | 91 %             |                    |                   |                  |                    |
| Surrogate: Dibromofluoromethane (80-120%) |           |         |                    | 98 %             |                    |                   |                  |                    |
| Surrogate: Toluene-d8 (80-120%)           |           |         |                    | 102 %            |                    |                   |                  |                    |

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

### VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

| Analyte                              | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|--------------------------------------|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-04 (MW-5 - Water) |           |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                |           |         |                    |                  |                    |                   |                  |                    |
| Benzene                              | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromobenzene                         | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromochloromethane                   | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromodichloromethane                 | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromoform                            | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Bromomethane                         | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| n-Butylbenzene                       | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| sec-Butylbenzene                     | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| tert-Butylbenzene                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Carbon tetrachloride                 | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chlorobenzene                        | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chloroethane                         | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chloroform                           | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Chloromethane                        | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 2-Chlorotoluene                      | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 4-Chlorotoluene                      | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dibromo-3-chloropropane          | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Dibromochloromethane                 | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dibromoethane (EDB)              | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Dibromomethane                       | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dichlorobenzene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,3-Dichlorobenzene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,4-Dichlorobenzene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Dichlorodifluoromethane              | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1-Dichloroethane                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dichloroethane                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1-Dichloroethene                   | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| cis-1,2-Dichloroethene               | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| trans-1,2-Dichloroethene             | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2-Dichloropropane                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,3-Dichloropropane                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 2,2-Dichloropropane                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        | С                  |
| cis-1,3-Dichloropropene              | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| trans-1,3-Dichloropropene            | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1-Dichloropropene                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Ethylbenzene                         | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Hexachlorobutadiene                  | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Isopropylbenzene                     | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| p-Isopropyltoluene                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Methylene chloride                   | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Naphthalene                          | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |

#### **TestAmerica** Irvine

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

| Analyte                                   | Method    | Batch   | Reporting<br>Limit | Sample<br>Result | Dilution<br>Factor | Date<br>Extracted | Date<br>Analyzed | Data<br>Qualifiers |
|---|-----------|---------|--------------------|------------------|--------------------|-------------------|------------------|--------------------|
| Sample ID: ITJ0046-04 (MW-5 - Water) - co | nt.       |         |                    |                  |                    |                   |                  | P1                 |
| Reporting Units: ug/l                     |           |         |                    |                  |                    |                   |                  |                    |
| n-Propylbenzene                           | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Styrene                                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,1,2-Tetrachloroethane                 | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,2,2-Tetrachloroethane                 | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Tetrachloroethene                         | EPA 8260B | 10J0226 | 2.0                | 2.1              | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Toluene                                   | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,3-Trichlorobenzene                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,4-Trichlorobenzene                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,1-Trichloroethane                     | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,1,2-Trichloroethane                     | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Trichloroethene                           | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Trichlorofluoromethane                    | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,3-Trichloropropane                    | EPA 8260B | 10J0226 | 10                 | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,2,4-Trimethylbenzene                    | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| 1,3,5-Trimethylbenzene                    | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Vinyl chloride                            | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| m,p-Xylenes                               | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| o-Xylene                                  | EPA 8260B | 10J0226 | 2.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Xylenes, Total                            | EPA 8260B | 10J0226 | 4.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Di-isopropyl Ether (DIPE)                 | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Ethyl tert-Butyl Ether (ETBE)             | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Methyl-tert-butyl Ether (MTBE)            | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| tert-Amyl Methyl Ether (TAME)             | EPA 8260B | 10J0226 | 5.0                | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| tert-Butanol (TBA)                        | EPA 8260B | 10J0226 | 50                 | ND               | 1                  | 10/4/2010         | 10/4/2010        |                    |
| Surrogate: 4-Bromofluorobenzene (80-120%) |           |         |                    | 88 %             |                    |                   |                  |                    |
| Surrogate: Dibromofluoromethane (80-120%) |           |         |                    | 100 %            |                    |                   |                  |                    |
| Surrogate: Toluene-d8 (80-120%)           |           |         |                    | 102 %            |                    |                   |                  |                    |



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TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu Project ID: 720-30863

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

METHOD BLANK/QC DATA

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                       |        | Reporting |       | Spike | Source |      | %REC   |     | RPD   | Data       |
|---------------------------------------|--------|-----------|-------|-------|--------|------|--------|-----|-------|------------|
| Analyte                               | Result | Limit     | Units | Level | Result | %REC | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/10    |        |           |       |       |        |      |        |     |       |            |
| Blank Analyzed: 10/03/2010 (10J0191-I | BLK1)  |           |       |       |        |      |        |     |       |            |
| Benzene                               | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Bromobenzene                          | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Bromochloromethane                    | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Bromodichloromethane                  | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Bromoform                             | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Bromomethane                          | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| n-Butylbenzene                        | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| sec-Butylbenzene                      | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| tert-Butylbenzene                     | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Carbon tetrachloride                  | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Chlorobenzene                         | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Chloroethane                          | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Chloroform                            | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Chloromethane                         | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 2-Chlorotoluene                       | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 4-Chlorotoluene                       | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2-Dibromo-3-chloropropane           | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Dibromochloromethane                  | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2-Dibromoethane (EDB)               | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Dibromomethane                        | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2-Dichlorobenzene                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,3-Dichlorobenzene                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,4-Dichlorobenzene                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Dichlorodifluoromethane               | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1-Dichloroethane                    | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2-Dichloroethane                    | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1-Dichloroethene                    | ND     | 5.0       | ug/l  |       |        |      |        |     |       |            |
| cis-1,2-Dichloroethene                | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| trans-1,2-Dichloroethene              | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2-Dichloropropane                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,3-Dichloropropane                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 2,2-Dichloropropane                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| cis-1,3-Dichloropropene               | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| trans-1,3-Dichloropropene             | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1-Dichloropropene                   | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Ethylbenzene                          | ND     | 2.0       | ug/l  |       |        |      |        |     |       |            |

#### **TestAmerica** Irvine



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TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu Project ID: 720-30863

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

METHOD BLANK/QC DATA

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    |          | Reporting |       | Spike | Source |      | %REC   |     | RPD   | Data       |
|------------------------------------|----------|-----------|-------|-------|--------|------|--------|-----|-------|------------|
| Analyte                            | Result   | Limit     | Units | Level | Result | %REC | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/10 | <u>)</u> |           |       |       |        |      |        |     |       |            |
| Blank Analyzed: 10/03/2010 (10J019 | 91-BLK1) |           |       |       |        |      |        |     |       |            |
| Hexachlorobutadiene                | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Isopropylbenzene                   | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| p-Isopropyltoluene                 | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Methylene chloride                 | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Naphthalene                        | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| n-Propylbenzene                    | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Styrene                            | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1,1,2-Tetrachloroethane          | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1,2,2-Tetrachloroethane          | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Tetrachloroethene                  | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Toluene                            | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2,3-Trichlorobenzene             | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2,4-Trichlorobenzene             | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1,1-Trichloroethane              | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,1,2-Trichloroethane              | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Trichloroethene                    | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Trichlorofluoromethane             | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| 1,2,3-Trichloropropane             | ND       | 10        | ug/l  |       |        |      |        |     |       |            |
| 1,2,4-Trimethylbenzene             | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| 1,3,5-Trimethylbenzene             | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Vinyl chloride                     | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| m,p-Xylenes                        | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| o-Xylene                           | ND       | 2.0       | ug/l  |       |        |      |        |     |       |            |
| Xylenes, Total                     | ND       | 4.0       | ug/l  |       |        |      |        |     |       |            |
| Di-isopropyl Ether (DIPE)          | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Ethyl tert-Butyl Ether (ETBE)      | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| Methyl-tert-butyl Ether (MTBE)     | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| tert-Amyl Methyl Ether (TAME)      | ND       | 5.0       | ug/l  |       |        |      |        |     |       |            |
| tert-Butanol (TBA)                 | ND       | 50        | ug/l  |       |        |      |        |     |       |            |
| Surrogate: 4-Bromofluorobenzene    | 23.5     |           | ug/l  | 25.0  |        | 94   | 80-120 |     |       |            |
| Surrogate: Dibromofluoromethane    | 25.5     |           | ug/l  | 25.0  |        | 102  | 80-120 |     |       |            |
| Surrogate: Toluene-d8              | 25.8     |           | ug/l  | 25.0  |        | 103  | 80-120 |     |       |            |

#### **TestAmerica** Irvine





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Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                   |          | Reporting | g Spike Sou |       | Source |      | %REC   |     | RPD   | Data       |
|-----------------------------------|----------|-----------|-------------|-------|--------|------|--------|-----|-------|------------|
| Analyte                           | Result   | Limit     | Units       | Level | Result | %REC | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/1 | <u>0</u> |           |             |       |        |      |        |     |       |            |
| LCS Analyzed: 10/03/2010 (10J019  | 1-BS1)   |           |             |       |        |      |        |     |       |            |
| Benzene                           | 23.4     | 2.0       | ug/l        | 25.0  |        | 93   | 70-120 |     |       |            |
| Bromobenzene                      | 24.7     | 5.0       | ug/l        | 25.0  |        | 99   | 75-120 |     |       |            |
| Bromochloromethane                | 24.7     | 5.0       | ug/l        | 25.0  |        | 99   | 70-130 |     |       |            |
| Bromodichloromethane              | 29.4     | 2.0       | ug/l        | 25.0  |        | 117  | 70-135 |     |       |            |
| Bromoform                         | 25.8     | 5.0       | ug/l        | 25.0  |        | 103  | 55-130 |     |       |            |
| Bromomethane                      | 23.0     | 5.0       | ug/l        | 25.0  |        | 92   | 65-140 |     |       |            |
| n-Butylbenzene                    | 23.1     | 5.0       | ug/l        | 25.0  |        | 93   | 70-130 |     |       |            |
| sec-Butylbenzene                  | 25.0     | 5.0       | ug/l        | 25.0  |        | 100  | 70-125 |     |       |            |
| tert-Butylbenzene                 | 25.3     | 5.0       | ug/l        | 25.0  |        | 101  | 70-125 |     |       |            |
| Carbon tetrachloride              | 30.5     | 5.0       | ug/l        | 25.0  |        | 122  | 65-140 |     |       |            |
| Chlorobenzene                     | 25.1     | 2.0       | ug/l        | 25.0  |        | 100  | 75-120 |     |       |            |
| Chloroethane                      | 23.1     | 5.0       | ug/l        | 25.0  |        | 92   | 60-140 |     |       |            |
| Chloroform                        | 25.8     | 2.0       | ug/l        | 25.0  |        | 103  | 70-130 |     |       |            |
| Chloromethane                     | 20.4     | 5.0       | ug/l        | 25.0  |        | 82   | 50-140 |     |       |            |
| 2-Chlorotoluene                   | 24.9     | 5.0       | ug/l        | 25.0  |        | 100  | 70-125 |     |       |            |
| 4-Chlorotoluene                   | 25.4     | 5.0       | ug/l        | 25.0  |        | 102  | 75-125 |     |       |            |
| 1,2-Dibromo-3-chloropropane       | 25.0     | 5.0       | ug/l        | 25.0  |        | 100  | 50-135 |     |       |            |
| Dibromochloromethane              | 30.0     | 2.0       | ug/l        | 25.0  |        | 120  | 70-140 |     |       |            |
| 1,2-Dibromoethane (EDB)           | 24.8     | 2.0       | ug/l        | 25.0  |        | 99   | 75-125 |     |       |            |
| Dibromomethane                    | 26.5     | 2.0       | ug/l        | 25.0  |        | 106  | 70-125 |     |       |            |
| 1,2-Dichlorobenzene               | 24.6     | 2.0       | ug/l        | 25.0  |        | 98   | 75-120 |     |       |            |
| 1,3-Dichlorobenzene               | 25.3     | 2.0       | ug/l        | 25.0  |        | 101  | 75-120 |     |       |            |
| 1,4-Dichlorobenzene               | 24.8     | 2.0       | ug/l        | 25.0  |        | 99   | 75-120 |     |       |            |
| Dichlorodifluoromethane           | 19.6     | 5.0       | ug/l        | 25.0  |        | 78   | 35-155 |     |       |            |
| 1,1-Dichloroethane                | 23.7     | 2.0       | ug/l        | 25.0  |        | 95   | 70-125 |     |       |            |
| 1,2-Dichloroethane                | 29.8     | 2.0       | ug/l        | 25.0  |        | 119  | 60-140 |     |       |            |
| 1,1-Dichloroethene                | 23.9     | 5.0       | ug/l        | 25.0  |        | 95   | 70-125 |     |       |            |
| cis-1,2-Dichloroethene            | 23.1     | 2.0       | ug/l        | 25.0  |        | 93   | 70-125 |     |       |            |
| trans-1,2-Dichloroethene          | 22.4     | 2.0       | ug/l        | 25.0  |        | 90   | 70-125 |     |       |            |
| 1,2-Dichloropropane               | 21.8     | 2.0       | ug/l        | 25.0  |        | 87   | 70-125 |     |       |            |
| 1,3-Dichloropropane               | 24.6     | 2.0       | ug/l        | 25.0  |        | 99   | 70-120 |     |       |            |
| 2,2-Dichloropropane               | 30.1     | 2.0       | ug/l        | 25.0  |        | 121  | 65-140 |     |       |            |
| cis-1,3-Dichloropropene           | 24.8     | 2.0       | ug/l        | 25.0  |        | 99   | 75-125 |     |       |            |
| trans-1,3-Dichloropropene         | 27.0     | 2.0       | ug/l        | 25.0  |        | 108  | 70-125 |     |       |            |
| 1,1-Dichloropropene               | 25.4     | 2.0       | ug/l        | 25.0  |        | 102  | 75-130 |     |       |            |
| Ethylbenzene                      | 25.7     | 2.0       | ug/l        | 25.0  |        | 103  | 75-125 |     |       |            |

#### **TestAmerica** Irvine





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TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    | Reporting S<br>Result Limit Units I |       |       | Spike | Source |      | %REC   |     |       | Data       |
|------------------------------------|-------------------------------------|-------|-------|-------|--------|------|--------|-----|-------|------------|
| Analyte                            | Result                              | Limit | Units | Level | Result | %REC | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/10 | <u> </u>                            |       |       |       |        |      |        |     |       |            |
| LCS Analyzed: 10/03/2010 (10J0191  | -BS1)                               |       |       |       |        |      |        |     |       |            |
| Hexachlorobutadiene                | 27.7                                | 5.0   | ug/l  | 25.0  |        | 111  | 65-135 |     |       |            |
| Isopropylbenzene                   | 25.4                                | 2.0   | ug/l  | 25.0  |        | 102  | 75-130 |     |       |            |
| p-Isopropyltoluene                 | 24.6                                | 2.0   | ug/l  | 25.0  |        | 99   | 75-125 |     |       |            |
| Methylene chloride                 | 21.5                                | 5.0   | ug/l  | 25.0  |        | 86   | 55-130 |     |       |            |
| Naphthalene                        | 22.3                                | 5.0   | ug/l  | 25.0  |        | 89   | 55-135 |     |       |            |
| n-Propylbenzene                    | 24.4                                | 2.0   | ug/l  | 25.0  |        | 98   | 75-130 |     |       |            |
| Styrene                            | 23.0                                | 2.0   | ug/l  | 25.0  |        | 92   | 75-130 |     |       |            |
| 1,1,1,2-Tetrachloroethane          | 28.4                                | 5.0   | ug/l  | 25.0  |        | 113  | 70-130 |     |       |            |
| 1,1,2,2-Tetrachloroethane          | 22.1                                | 2.0   | ug/l  | 25.0  |        | 88   | 55-130 |     |       |            |
| Tetrachloroethene                  | 26.3                                | 2.0   | ug/l  | 25.0  |        | 105  | 70-125 |     |       |            |
| Toluene                            | 23.2                                | 2.0   | ug/l  | 25.0  |        | 93   | 70-120 |     |       |            |
| 1,2,3-Trichlorobenzene             | 24.5                                | 5.0   | ug/l  | 25.0  |        | 98   | 65-125 |     |       |            |
| 1,2,4-Trichlorobenzene             | 24.4                                | 5.0   | ug/l  | 25.0  |        | 97   | 70-135 |     |       |            |
| 1,1,1-Trichloroethane              | 27.8                                | 2.0   | ug/l  | 25.0  |        | 111  | 65-135 |     |       |            |
| 1,1,2-Trichloroethane              | 23.7                                | 2.0   | ug/l  | 25.0  |        | 95   | 70-125 |     |       |            |
| Trichloroethene                    | 24.6                                | 2.0   | ug/l  | 25.0  |        | 99   | 70-125 |     |       |            |
| Trichlorofluoromethane             | 31.1                                | 5.0   | ug/l  | 25.0  |        | 124  | 65-145 |     |       |            |
| 1,2,3-Trichloropropane             | 22.4                                | 10    | ug/l  | 25.0  |        | 90   | 60-130 |     |       |            |
| 1,2,4-Trimethylbenzene             | 25.3                                | 2.0   | ug/l  | 25.0  |        | 101  | 75-125 |     |       |            |
| 1,3,5-Trimethylbenzene             | 25.6                                | 2.0   | ug/l  | 25.0  |        | 102  | 75-125 |     |       |            |
| Vinyl chloride                     | 22.0                                | 5.0   | ug/l  | 25.0  |        | 88   | 55-135 |     |       |            |
| m,p-Xylenes                        | 47.7                                | 2.0   | ug/l  | 50.0  |        | 95   | 75-125 |     |       |            |
| o-Xylene                           | 23.7                                | 2.0   | ug/l  | 25.0  |        | 95   | 75-125 |     |       |            |
| Xylenes, Total                     | 71.4                                | 4.0   | ug/l  | 75.0  |        | 95   | 70-125 |     |       |            |
| Di-isopropyl Ether (DIPE)          | 21.4                                | 5.0   | ug/l  | 25.0  |        | 86   | 60-135 |     |       |            |
| Ethyl tert-Butyl Ether (ETBE)      | 19.2                                | 5.0   | ug/l  | 25.0  |        | 77   | 65-135 |     |       |            |
| Methyl-tert-butyl Ether (MTBE)     | 22.2                                | 5.0   | ug/l  | 25.0  |        | 89   | 60-135 |     |       |            |
| tert-Amyl Methyl Ether (TAME)      | 18.7                                | 5.0   | ug/l  | 25.0  |        | 75   | 60-135 |     |       |            |
| tert-Butanol (TBA)                 | 127                                 | 50    | ug/l  | 125   |        | 102  | 70-135 |     |       |            |
| Surrogate: 4-Bromofluorobenzene    | 25.7                                |       | ug/l  | 25.0  |        | 103  | 80-120 |     |       |            |
| Surrogate: Dibromofluoromethane    | 26.8                                |       | ug/l  | 25.0  |        | 107  | 80-120 |     |       |            |
| Surrogate: Toluene-d8              | 25.2                                |       | ug/l  | 25.0  |        | 101  | 80-120 |     |       |            |

#### **TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                  |                 | Reporting |       |       | Source    |           | %REC   |     |       | Data       |  |
|----------------------------------|-----------------|-----------|-------|-------|-----------|-----------|--------|-----|-------|------------|--|
| Analyte                          | Result          | Limit     | Units | Level | Result    | %REC      | Limits | RPD | Limit | Qualifiers |  |
| Batch: 10J0191 Extracted: 10/03/ | <u>10</u>       |           |       |       |           |           |        |     |       |            |  |
| Matrix Spike Analyzed: 10/03/201 | 0 (10J0191-MS1) |           |       |       | Source: I | TI2586-04 | ļ      |     |       |            |  |
| Benzene                          | 23.8            | 2.0       | ug/l  | 25.0  | ND        | 95        | 65-125 |     |       |            |  |
| Bromobenzene                     | 25.3            | 5.0       | ug/l  | 25.0  | ND        | 101       | 70-125 |     |       |            |  |
| Bromochloromethane               | 24.7            | 5.0       | ug/l  | 25.0  | ND        | 99        | 65-135 |     |       |            |  |
| Bromodichloromethane             | 29.3            | 2.0       | ug/l  | 25.0  | ND        | 117       | 70-135 |     |       |            |  |
| Bromoform                        | 28.4            | 5.0       | ug/l  | 25.0  | ND        | 114       | 55-135 |     |       |            |  |
| Bromomethane                     | 24.0            | 5.0       | ug/l  | 25.0  | ND        | 96        | 55-145 |     |       |            |  |
| n-Butylbenzene                   | 24.3            | 5.0       | ug/l  | 25.0  | ND        | 97        | 65-135 |     |       |            |  |
| sec-Butylbenzene                 | 25.1            | 5.0       | ug/l  | 25.0  | 0.630     | 98        | 70-125 |     |       |            |  |
| tert-Butylbenzene                | 24.9            | 5.0       | ug/l  | 25.0  | ND        | 100       | 65-130 |     |       |            |  |
| Carbon tetrachloride             | 30.2            | 5.0       | ug/l  | 25.0  | ND        | 121       | 65-140 |     |       |            |  |
| Chlorobenzene                    | 25.4            | 2.0       | ug/l  | 25.0  | ND        | 102       | 75-125 |     |       |            |  |
| Chloroethane                     | 23.6            | 5.0       | ug/l  | 25.0  | ND        | 94        | 55-140 |     |       |            |  |
| Chloroform                       | 25.9            | 2.0       | ug/l  | 25.0  | ND        | 104       | 65-135 |     |       |            |  |
| Chloromethane                    | 21.0            | 5.0       | ug/l  | 25.0  | ND        | 84        | 45-145 |     |       |            |  |
| 2-Chlorotoluene                  | 24.5            | 5.0       | ug/l  | 25.0  | ND        | 98        | 65-135 |     |       |            |  |
| 4-Chlorotoluene                  | 24.8            | 5.0       | ug/l  | 25.0  | ND        | 99        | 70-135 |     |       |            |  |
| 1,2-Dibromo-3-chloropropane      | 30.6            | 5.0       | ug/l  | 25.0  | ND        | 123       | 45-145 |     |       |            |  |
| Dibromochloromethane             | 30.9            | 2.0       | ug/l  | 25.0  | ND        | 123       | 65-140 |     |       |            |  |
| 1,2-Dibromoethane (EDB)          | 26.5            | 2.0       | ug/l  | 25.0  | ND        | 106       | 70-130 |     |       |            |  |
| Dibromomethane                   | 26.8            | 2.0       | ug/l  | 25.0  | ND        | 107       | 65-135 |     |       |            |  |
| 1,2-Dichlorobenzene              | 25.2            | 2.0       | ug/l  | 25.0  | ND        | 101       | 75-125 |     |       |            |  |
| 1,3-Dichlorobenzene              | 25.2            | 2.0       | ug/l  | 25.0  | ND        | 101       | 75-125 |     |       |            |  |
| 1,4-Dichlorobenzene              | 25.4            | 2.0       | ug/l  | 25.0  | ND        | 101       | 75-125 |     |       |            |  |
| Dichlorodifluoromethane          | 19.2            | 5.0       | ug/l  | 25.0  | ND        | 77        | 25-155 |     |       |            |  |
| 1,1-Dichloroethane               | 23.7            | 2.0       | ug/l  | 25.0  | ND        | 95        | 65-130 |     |       |            |  |
| 1,2-Dichloroethane               | 45.9            | 2.0       | ug/l  | 25.0  | 12.9      | 132       | 60-140 |     |       |            |  |
| 1,1-Dichloroethene               | 24.0            | 5.0       | ug/l  | 25.0  | ND        | 96        | 60-130 |     |       |            |  |
| cis-1,2-Dichloroethene           | 23.5            | 2.0       | ug/l  | 25.0  | ND        | 94        | 65-130 |     |       |            |  |
| trans-1,2-Dichloroethene         | 22.6            | 2.0       | ug/l  | 25.0  | ND        | 90        | 65-130 |     |       |            |  |
| 1,2-Dichloropropane              | 22.8            | 2.0       | ug/l  | 25.0  | ND        | 91        | 65-130 |     |       |            |  |
| 1,3-Dichloropropane              | 25.9            | 2.0       | ug/l  | 25.0  | ND        | 103       | 65-135 |     |       |            |  |
| 2,2-Dichloropropane              | 31.7            | 2.0       | ug/l  | 25.0  | ND        | 127       | 60-145 |     |       |            |  |
| cis-1,3-Dichloropropene          | 24.6            | 2.0       | ug/l  | 25.0  | ND        | 98        | 70-130 |     |       |            |  |
| trans-1,3-Dichloropropene        | 27.6            | 2.0       | ug/l  | 25.0  | ND        | 111       | 65-135 |     |       |            |  |
| 1,1-Dichloropropene              | 25.5            | 2.0       | ug/l  | 25.0  | ND        | 102       | 70-135 |     |       |            |  |
| Ethylbenzene                     | 27.0            | 2.0       | ug/l  | 25.0  | 0.940     | 104       | 65-130 |     |       |            |  |

**TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                     |               | Reporting |       | Spike | Source    |           | %REC   |     | RPD   | Data       |
|-------------------------------------|---------------|-----------|-------|-------|-----------|-----------|--------|-----|-------|------------|
| Analyte                             | Result        | Limit     | Units | Level | Result    | %REC      | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/10  | _             |           |       |       |           |           |        |     |       |            |
| Matrix Spike Analyzed: 10/03/2010 ( | (10J0191-MS1) |           |       |       | Source: I | TI2586-04 | Ļ      |     |       |            |
| Hexachlorobutadiene                 | 28.6          | 5.0       | ug/l  | 25.0  | ND        | 115       | 60-135 |     |       |            |
| Isopropylbenzene                    | 25.4          | 2.0       | ug/l  | 25.0  | 0.460     | 100       | 70-135 |     |       |            |
| p-Isopropyltoluene                  | 24.8          | 2.0       | ug/l  | 25.0  | ND        | 99        | 65-130 |     |       |            |
| Methylene chloride                  | 22.0          | 5.0       | ug/l  | 25.0  | ND        | 88        | 50-135 |     |       |            |
| Naphthalene                         | 26.3          | 5.0       | ug/l  | 25.0  | ND        | 105       | 50-140 |     |       |            |
| n-Propylbenzene                     | 25.0          | 2.0       | ug/l  | 25.0  | 0.580     | 98        | 70-135 |     |       |            |
| Styrene                             | 23.4          | 2.0       | ug/l  | 25.0  | ND        | 94        | 50-145 |     |       |            |
| 1,1,1,2-Tetrachloroethane           | 28.7          | 5.0       | ug/l  | 25.0  | ND        | 115       | 65-140 |     |       |            |
| 1,1,2,2-Tetrachloroethane           | 24.7          | 2.0       | ug/l  | 25.0  | ND        | 99        | 55-135 |     |       |            |
| Tetrachloroethene                   | 26.0          | 2.0       | ug/l  | 25.0  | ND        | 104       | 65-130 |     |       |            |
| Toluene                             | 23.6          | 2.0       | ug/l  | 25.0  | 0.520     | 92        | 70-125 |     |       |            |
| 1,2,3-Trichlorobenzene              | 26.4          | 5.0       | ug/l  | 25.0  | ND        | 106       | 60-135 |     |       |            |
| 1,2,4-Trichlorobenzene              | 26.6          | 5.0       | ug/l  | 25.0  | ND        | 107       | 65-135 |     |       |            |
| 1,1,1-Trichloroethane               | 28.1          | 2.0       | ug/l  | 25.0  | ND        | 113       | 65-140 |     |       |            |
| 1,1,2-Trichloroethane               | 26.2          | 2.0       | ug/l  | 25.0  | ND        | 105       | 65-130 |     |       |            |
| Trichloroethene                     | 25.0          | 2.0       | ug/l  | 25.0  | ND        | 100       | 65-125 |     |       |            |
| Trichlorofluoromethane              | 32.2          | 5.0       | ug/l  | 25.0  | ND        | 129       | 60-145 |     |       |            |
| 1,2,3-Trichloropropane              | 24.9          | 10        | ug/l  | 25.0  | ND        | 99        | 55-135 |     |       |            |
| 1,2,4-Trimethylbenzene              | 26.2          | 2.0       | ug/l  | 25.0  | 0.630     | 102       | 55-135 |     |       |            |
| 1,3,5-Trimethylbenzene              | 25.5          | 2.0       | ug/l  | 25.0  | ND        | 102       | 70-130 |     |       |            |
| Vinyl chloride                      | 22.8          | 5.0       | ug/l  | 25.0  | ND        | 91        | 45-140 |     |       |            |
| m,p-Xylenes                         | 48.7          | 2.0       | ug/l  | 50.0  | ND        | 97        | 65-130 |     |       |            |
| o-Xylene                            | 24.0          | 2.0       | ug/l  | 25.0  | ND        | 96        | 65-125 |     |       |            |
| Xylenes, Total                      | 72.7          | 4.0       | ug/l  | 75.0  | ND        | 97        | 60-130 |     |       |            |
| Di-isopropyl Ether (DIPE)           | 22.1          | 5.0       | ug/l  | 25.0  | ND        | 88        | 60-140 |     |       |            |
| Ethyl tert-Butyl Ether (ETBE)       | 19.5          | 5.0       | ug/l  | 25.0  | ND        | 78        | 60-135 |     |       |            |
| Methyl-tert-butyl Ether (MTBE)      | 23.2          | 5.0       | ug/l  | 25.0  | ND        | 93        | 55-145 |     |       |            |
| tert-Amyl Methyl Ether (TAME)       | 19.6          | 5.0       | ug/l  | 25.0  | ND        | 78        | 60-140 |     |       |            |
| tert-Butanol (TBA)                  | 207           | 50        | ug/l  | 125   | 48.6      | 127       | 65-140 |     |       |            |
| Surrogate: 4-Bromofluorobenzene     | 26.7          |           | ug/l  | 25.0  |           | 107       | 80-120 |     |       |            |
| Surrogate: Dibromofluoromethane     | 26.3          |           | ug/l  | 25.0  |           | 105       | 80-120 |     |       |            |
| Surrogate: Toluene-d8               | 25.1          |           | ug/l  | 25.0  |           | 100       | 80-120 |     |       |            |

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Project ID: 720-30863

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Re

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    | Reporting       |       |       | Spike | Source    |           | %REC   |     | RPD   | Data       |
|------------------------------------|-----------------|-------|-------|-------|-----------|-----------|--------|-----|-------|------------|
| Analyte                            | Result          | Limit | Units | Level | Result    | %REC      | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/10 | <u>)</u>        |       |       |       |           |           |        |     |       |            |
| Matrix Spike Dup Analyzed: 10/03/2 | 2010 (10J0191-M | SD1)  |       |       | Source: I | TI2586-04 | Ļ      |     |       |            |
| Benzene                            | 23.4            | 2.0   | ug/l  | 25.0  | ND        | 94        | 65-125 | 1   | 20    |            |
| Bromobenzene                       | 26.0            | 5.0   | ug/l  | 25.0  | ND        | 104       | 70-125 | 3   | 20    |            |
| Bromochloromethane                 | 25.4            | 5.0   | ug/l  | 25.0  | ND        | 102       | 65-135 | 3   | 25    |            |
| Bromodichloromethane               | 29.3            | 2.0   | ug/l  | 25.0  | ND        | 117       | 70-135 | 0   | 20    |            |
| Bromoform                          | 25.8            | 5.0   | ug/l  | 25.0  | ND        | 103       | 55-135 | 10  | 25    |            |
| Bromomethane                       | 24.3            | 5.0   | ug/l  | 25.0  | ND        | 97        | 55-145 | 1   | 25    |            |
| n-Butylbenzene                     | 19.8            | 5.0   | ug/l  | 25.0  | ND        | 79        | 65-135 | 20  | 20    |            |
| sec-Butylbenzene                   | 21.8            | 5.0   | ug/l  | 25.0  | 0.630     | 85        | 70-125 | 14  | 20    |            |
| tert-Butylbenzene                  | 23.2            | 5.0   | ug/l  | 25.0  | ND        | 93        | 65-130 | 7   | 20    |            |
| Carbon tetrachloride               | 30.0            | 5.0   | ug/l  | 25.0  | ND        | 120       | 65-140 | 0.5 | 25    |            |
| Chlorobenzene                      | 23.0            | 2.0   | ug/l  | 25.0  | ND        | 92        | 75-125 | 10  | 20    |            |
| Chloroethane                       | 24.3            | 5.0   | ug/l  | 25.0  | ND        | 97        | 55-140 | 3   | 25    |            |
| Chloroform                         | 25.7            | 2.0   | ug/l  | 25.0  | ND        | 103       | 65-135 | 0.7 | 20    |            |
| Chloromethane                      | 20.7            | 5.0   | ug/l  | 25.0  | ND        | 83        | 45-145 | 1   | 25    |            |
| 2-Chlorotoluene                    | 23.8            | 5.0   | ug/l  | 25.0  | ND        | 95        | 65-135 | 3   | 20    |            |
| 4-Chlorotoluene                    | 25.0            | 5.0   | ug/l  | 25.0  | ND        | 100       | 70-135 | 0.7 | 20    |            |
| 1,2-Dibromo-3-chloropropane        | 33.0            | 5.0   | ug/l  | 25.0  | ND        | 132       | 45-145 | 7   | 30    |            |
| Dibromochloromethane               | 29.6            | 2.0   | ug/l  | 25.0  | ND        | 118       | 65-140 | 4   | 25    |            |
| 1,2-Dibromoethane (EDB)            | 25.0            | 2.0   | ug/l  | 25.0  | ND        | 100       | 70-130 | 6   | 25    |            |
| Dibromomethane                     | 27.1            | 2.0   | ug/l  | 25.0  | ND        | 108       | 65-135 | 1   | 25    |            |
| 1,2-Dichlorobenzene                | 25.3            | 2.0   | ug/l  | 25.0  | ND        | 101       | 75-125 | 0.3 | 20    |            |
| 1,3-Dichlorobenzene                | 25.7            | 2.0   | ug/l  | 25.0  | ND        | 103       | 75-125 | 2   | 20    |            |
| 1,4-Dichlorobenzene                | 25.3            | 2.0   | ug/l  | 25.0  | ND        | 101       | 75-125 | 0.3 | 20    |            |
| Dichlorodifluoromethane            | 19.6            | 5.0   | ug/l  | 25.0  | ND        | 78        | 25-155 | 2   | 30    |            |
| 1,1-Dichloroethane                 | 23.5            | 2.0   | ug/l  | 25.0  | ND        | 94        | 65-130 | 0.8 | 20    |            |
| 1,2-Dichloroethane                 | 42.7            | 2.0   | ug/l  | 25.0  | 12.9      | 119       | 60-140 | 7   | 20    |            |
| 1,1-Dichloroethene                 | 23.8            | 5.0   | ug/l  | 25.0  | ND        | 95        | 60-130 | 0.9 | 20    |            |
| cis-1,2-Dichloroethene             | 23.2            | 2.0   | ug/l  | 25.0  | ND        | 93        | 65-130 | 1   | 20    |            |
| trans-1,2-Dichloroethene           | 22.9            | 2.0   | ug/l  | 25.0  | ND        | 91        | 65-130 | 1   | 20    |            |
| 1,2-Dichloropropane                | 23.2            | 2.0   | ug/l  | 25.0  | ND        | 93        | 65-130 | 2   | 20    |            |
| 1,3-Dichloropropane                | 24.1            | 2.0   | ug/l  | 25.0  | ND        | 96        | 65-135 | 7   | 25    |            |
| 2,2-Dichloropropane                | 30.8            | 2.0   | ug/l  | 25.0  | ND        | 123       | 60-145 | 3   | 25    |            |
| cis-1,3-Dichloropropene            | 24.6            | 2.0   | ug/l  | 25.0  | ND        | 98        | 70-130 | 0.2 | 20    |            |
| trans-1,3-Dichloropropene          | 28.4            | 2.0   | ug/l  | 25.0  | ND        | 114       | 65-135 | 3   | 25    |            |
| 1,1-Dichloropropene                | 25.8            | 2.0   | ug/l  | 25.0  | ND        | 103       | 70-135 | 1   | 20    |            |
| Ethylbenzene                       | 24.3            | 2.0   | ug/l  | 25.0  | 0.940     | 94        | 65-130 | 10  | 20    |            |

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Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    |                 | Reporting |       | Spike | Source    |           | %REC   | RPD | Data  |            |
|------------------------------------|-----------------|-----------|-------|-------|-----------|-----------|--------|-----|-------|------------|
| Analyte                            | Result          | Limit     | Units | Level | Result    | %REC      | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0191 Extracted: 10/03/10 | <u>)</u>        |           |       |       |           |           |        |     |       |            |
| Matrix Spike Dup Analyzed: 10/03/2 | 2010 (10J0191-M | SD1)      |       |       | Source: I | TI2586-04 | Ļ      |     |       |            |
| Hexachlorobutadiene                | 13.1            | 5.0       | ug/l  | 25.0  | ND        | 53        | 60-135 | 74  | 20    | R-3, M2    |
| Isopropylbenzene                   | 24.8            | 2.0       | ug/l  | 25.0  | 0.460     | 97        | 70-135 | 3   | 20    |            |
| p-Isopropyltoluene                 | 21.8            | 2.0       | ug/l  | 25.0  | ND        | 87        | 65-130 | 13  | 20    |            |
| Methylene chloride                 | 22.8            | 5.0       | ug/l  | 25.0  | ND        | 91        | 50-135 | 4   | 20    |            |
| Naphthalene                        | 25.2            | 5.0       | ug/l  | 25.0  | ND        | 101       | 50-140 | 4   | 30    |            |
| n-Propylbenzene                    | 24.1            | 2.0       | ug/l  | 25.0  | 0.580     | 94        | 70-135 | 4   | 20    |            |
| Styrene                            | 21.4            | 2.0       | ug/l  | 25.0  | ND        | 85        | 50-145 | 9   | 30    |            |
| 1,1,1,2-Tetrachloroethane          | 26.2            | 5.0       | ug/l  | 25.0  | ND        | 105       | 65-140 | 9   | 20    |            |
| 1,1,2,2-Tetrachloroethane          | 26.4            | 2.0       | ug/l  | 25.0  | ND        | 106       | 55-135 | 7   | 30    |            |
| Tetrachloroethene                  | 24.2            | 2.0       | ug/l  | 25.0  | ND        | 97        | 65-130 | 7   | 20    |            |
| Toluene                            | 23.1            | 2.0       | ug/l  | 25.0  | 0.520     | 90        | 70-125 | 2   | 20    |            |
| 1,2,3-Trichlorobenzene             | 21.5            | 5.0       | ug/l  | 25.0  | ND        | 86        | 60-135 | 21  | 20    | R          |
| 1,2,4-Trichlorobenzene             | 21.6            | 5.0       | ug/l  | 25.0  | ND        | 86        | 65-135 | 21  | 20    | R          |
| 1,1,1-Trichloroethane              | 28.3            | 2.0       | ug/l  | 25.0  | ND        | 113       | 65-140 | 0.4 | 20    |            |
| 1,1,2-Trichloroethane              | 26.0            | 2.0       | ug/l  | 25.0  | ND        | 104       | 65-130 | 1   | 25    |            |
| Trichloroethene                    | 24.7            | 2.0       | ug/l  | 25.0  | ND        | 99        | 65-125 | 1   | 20    |            |
| Trichlorofluoromethane             | 31.9            | 5.0       | ug/l  | 25.0  | ND        | 128       | 60-145 | 1   | 25    |            |
| 1,2,3-Trichloropropane             | 26.9            | 10        | ug/l  | 25.0  | ND        | 107       | 55-135 | 8   | 30    |            |
| 1,2,4-Trimethylbenzene             | 25.5            | 2.0       | ug/l  | 25.0  | 0.630     | 100       | 55-135 | 3   | 25    |            |
| 1,3,5-Trimethylbenzene             | 24.9            | 2.0       | ug/l  | 25.0  | ND        | 100       | 70-130 | 2   | 20    |            |
| Vinyl chloride                     | 22.8            | 5.0       | ug/l  | 25.0  | ND        | 91        | 45-140 | 0.2 | 30    |            |
| m,p-Xylenes                        | 44.5            | 2.0       | ug/l  | 50.0  | ND        | 89        | 65-130 | 9   | 25    |            |
| o-Xylene                           | 22.4            | 2.0       | ug/l  | 25.0  | ND        | 90        | 65-125 | 7   | 20    |            |
| Xylenes, Total                     | 66.9            | 4.0       | ug/l  | 75.0  | ND        | 89        | 60-130 | 8   | 20    |            |
| Di-isopropyl Ether (DIPE)          | 21.7            | 5.0       | ug/l  | 25.0  | ND        | 87        | 60-140 | 2   | 25    |            |
| Ethyl tert-Butyl Ether (ETBE)      | 20.6            | 5.0       | ug/l  | 25.0  | ND        | 82        | 60-135 | 5   | 25    |            |
| Methyl-tert-butyl Ether (MTBE)     | 23.7            | 5.0       | ug/l  | 25.0  | ND        | 95        | 55-145 | 2   | 25    |            |
| tert-Amyl Methyl Ether (TAME)      | 20.7            | 5.0       | ug/l  | 25.0  | ND        | 83        | 60-140 | 6   | 30    |            |
| tert-Butanol (TBA)                 | 206             | 50        | ug/l  | 125   | 48.6      | 126       | 65-140 | 0.5 | 25    |            |
| Surrogate: 4-Bromofluorobenzene    | 25.2            |           | ug/l  | 25.0  |           | 101       | 80-120 |     |       |            |
| Surrogate: Dibromofluoromethane    | 25.9            |           | ug/l  | 25.0  |           | 103       | 80-120 |     |       |            |
| Surrogate: Toluene-d8              | 25.3            |           | ug/l  | 25.0  |           | 101       | 80-120 |     |       |            |

#### **TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu Project ID: 720-30863

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

METHOD BLANK/QC DATA

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|        | Reporting  |  | Spike  | Source   |  | %REC   |  | RPD  | Data  |
|--------|--|--|--|--|--|--|--|--|---|
| Result | Limit  | Units  | Level  | Result   | %REC   | Limits   | RPD  | Limit  | Qualifiers  |
|        |  |  |  |  |  |  |  |  |   |
| BLK1)  |  |  |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 5.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
| ND     | 2.0  | ug/l   |  |  |  |  |  |  |   |
|        | Result       ND       ND   < | ResultReporting<br>LimitND2.0ND5.0ND2.0 <t< td=""><td>ResultLimitUnitsResultLimitUnitsND2.0ug/lND5.0ug/lND5.0ug/lND2.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND2.0ug/l<td>ResultLimitUnitsLevelND2.0ug/lND5.0ug/lND2.0ug/l<!--</td--><td>ResultLimitUnitsSpikeSourceResultLimitUnitsLevelResultND2.0ug/lND5.0ug/lND2.0</td><td>Reporting<br/>ResultSpike<br/>UnitsSource<br/>ResultND2.0ug/lND5.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND</td><td>ReportingSpikeSource%RECResultLimitUnitsLevelResult%RECLimitsND2.0ug/l</td><td>Reporting<br/>ResultSpike<br/>LimitSource<br/>Result%RECMECResultLimitUnitsLevelResult%RECLimitsRPDResultND2.0ug/lSourceSourc</td><td>Reporting<br/>ResultSpike<br/>LinitSource<br/>Result%RECLinitsRPD<br/>LinitsRPD<br/>LinitResultLinitUnitsLevelResult%RECLinitsRPDLinitND2.0ug/lSourceSou</td></td></td></t<> | ResultLimitUnitsResultLimitUnitsND2.0ug/lND5.0ug/lND5.0ug/lND2.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND5.0ug/lND2.0ug/l <td>ResultLimitUnitsLevelND2.0ug/lND5.0ug/lND2.0ug/l<!--</td--><td>ResultLimitUnitsSpikeSourceResultLimitUnitsLevelResultND2.0ug/lND5.0ug/lND2.0</td><td>Reporting<br/>ResultSpike<br/>UnitsSource<br/>ResultND2.0ug/lND5.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND</td><td>ReportingSpikeSource%RECResultLimitUnitsLevelResult%RECLimitsND2.0ug/l</td><td>Reporting<br/>ResultSpike<br/>LimitSource<br/>Result%RECMECResultLimitUnitsLevelResult%RECLimitsRPDResultND2.0ug/lSourceSourc</td><td>Reporting<br/>ResultSpike<br/>LinitSource<br/>Result%RECLinitsRPD<br/>LinitsRPD<br/>LinitResultLinitUnitsLevelResult%RECLinitsRPDLinitND2.0ug/lSourceSou</td></td> | ResultLimitUnitsLevelND2.0ug/lND5.0ug/lND2.0ug/l </td <td>ResultLimitUnitsSpikeSourceResultLimitUnitsLevelResultND2.0ug/lND5.0ug/lND2.0</td> <td>Reporting<br/>ResultSpike<br/>UnitsSource<br/>ResultND2.0ug/lND5.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND</td> <td>ReportingSpikeSource%RECResultLimitUnitsLevelResult%RECLimitsND2.0ug/l</td> <td>Reporting<br/>ResultSpike<br/>LimitSource<br/>Result%RECMECResultLimitUnitsLevelResult%RECLimitsRPDResultND2.0ug/lSourceSourc</td> <td>Reporting<br/>ResultSpike<br/>LinitSource<br/>Result%RECLinitsRPD<br/>LinitsRPD<br/>LinitResultLinitUnitsLevelResult%RECLinitsRPDLinitND2.0ug/lSourceSou</td> | ResultLimitUnitsSpikeSourceResultLimitUnitsLevelResultND2.0ug/lND5.0ug/lND2.0 | Reporting<br>ResultSpike<br>UnitsSource<br>ResultND2.0ug/lND5.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND2.0ug/lND | ReportingSpikeSource%RECResultLimitUnitsLevelResult%RECLimitsND2.0ug/l | Reporting<br>ResultSpike<br>LimitSource<br>Result%RECMECResultLimitUnitsLevelResult%RECLimitsRPDResultND2.0ug/lSourceSourc | Reporting<br>ResultSpike<br>LinitSource<br>Result%RECLinitsRPD<br>LinitsRPD<br>LinitResultLinitUnitsLevelResult%RECLinitsRPDLinitND2.0ug/lSourceSou |

#### **TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu Project ID: 720-30863

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

METHOD BLANK/QC DATA

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    | Reporting |       |       | Spike | Spike Source |      |        | %REC RPD |       |            |
|------------------------------------|-----------|-------|-------|-------|--------------|------|--------|----------|-------|------------|
| Analyte                            | Result    | Limit | Units | Level | Result       | %REC | Limits | RPD      | Limit | Qualifiers |
| Batch: 10J0226 Extracted: 10/04/10 | <u>)</u>  |       |       |       |              |      |        |          |       |            |
| Blank Analyzed: 10/04/2010 (10J022 | 26-BLK1)  |       |       |       |              |      |        |          |       |            |
| Hexachlorobutadiene                | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| Isopropylbenzene                   | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| p-Isopropyltoluene                 | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Methylene chloride                 | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| Naphthalene                        | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| n-Propylbenzene                    | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Styrene                            | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| 1,1,1,2-Tetrachloroethane          | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| 1,1,2,2-Tetrachloroethane          | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Tetrachloroethene                  | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Toluene                            | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| 1,2,3-Trichlorobenzene             | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| 1,2,4-Trichlorobenzene             | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| 1,1,1-Trichloroethane              | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| 1,1,2-Trichloroethane              | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Trichloroethene                    | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Trichlorofluoromethane             | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| 1,2,3-Trichloropropane             | ND        | 10    | ug/l  |       |              |      |        |          |       |            |
| 1,2,4-Trimethylbenzene             | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| 1,3,5-Trimethylbenzene             | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Vinyl chloride                     | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| m,p-Xylenes                        | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| o-Xylene                           | ND        | 2.0   | ug/l  |       |              |      |        |          |       |            |
| Xylenes, Total                     | ND        | 4.0   | ug/l  |       |              |      |        |          |       |            |
| Di-isopropyl Ether (DIPE)          | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| Ethyl tert-Butyl Ether (ETBE)      | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| Methyl-tert-butyl Ether (MTBE)     | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| tert-Amyl Methyl Ether (TAME)      | ND        | 5.0   | ug/l  |       |              |      |        |          |       |            |
| tert-Butanol (TBA)                 | ND        | 50    | ug/l  |       |              |      |        |          |       |            |
| Surrogate: 4-Bromofluorobenzene    | 22.5      |       | ug/l  | 25.0  |              | 90   | 80-120 |          |       |            |
| Surrogate: Dibromofluoromethane    | 23.8      |       | ug/l  | 25.0  |              | 95   | 80-120 |          |       |            |
| Surrogate: Toluene-d8              | 25.0      |       | ug/l  | 25.0  |              | 100  | 80-120 |          |       |            |

#### **TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                  |           | Reporting |       |       | Source |      | %REC   |     | RPD   | Data       |  |
|----------------------------------|-----------|-----------|-------|-------|--------|------|--------|-----|-------|------------|--|
| Analyte                          | Result    | Limit     | Units | Level | Result | %REC | Limits | RPD | Limit | Qualifiers |  |
| Batch: 10J0226 Extracted: 10/04/ | <u>10</u> |           |       |       |        |      |        |     |       |            |  |
| LCS Analyzed: 10/04/2010 (10J02  | 26-BS1)   |           |       |       |        |      |        |     |       |            |  |
| Benzene                          | 24.8      | 2.0       | ug/l  | 25.0  |        | 99   | 70-120 |     |       |            |  |
| Bromobenzene                     | 25.6      | 5.0       | ug/l  | 25.0  |        | 103  | 75-120 |     |       |            |  |
| Bromochloromethane               | 25.1      | 5.0       | ug/l  | 25.0  |        | 100  | 70-130 |     |       |            |  |
| Bromodichloromethane             | 28.7      | 2.0       | ug/l  | 25.0  |        | 115  | 70-135 |     |       |            |  |
| Bromoform                        | 29.4      | 5.0       | ug/l  | 25.0  |        | 118  | 55-130 |     |       |            |  |
| Bromomethane                     | 25.6      | 5.0       | ug/l  | 25.0  |        | 102  | 65-140 |     |       |            |  |
| n-Butylbenzene                   | 25.8      | 5.0       | ug/l  | 25.0  |        | 103  | 70-130 |     |       |            |  |
| sec-Butylbenzene                 | 25.8      | 5.0       | ug/l  | 25.0  |        | 103  | 70-125 |     |       |            |  |
| tert-Butylbenzene                | 25.2      | 5.0       | ug/l  | 25.0  |        | 101  | 70-125 |     |       |            |  |
| Carbon tetrachloride             | 31.4      | 5.0       | ug/l  | 25.0  |        | 126  | 65-140 |     |       |            |  |
| Chlorobenzene                    | 25.2      | 2.0       | ug/l  | 25.0  |        | 101  | 75-120 |     |       |            |  |
| Chloroethane                     | 24.9      | 5.0       | ug/l  | 25.0  |        | 99   | 60-140 |     |       |            |  |
| Chloroform                       | 24.4      | 2.0       | ug/l  | 25.0  |        | 98   | 70-130 |     |       |            |  |
| Chloromethane                    | 22.8      | 5.0       | ug/l  | 25.0  |        | 91   | 50-140 |     |       |            |  |
| 2-Chlorotoluene                  | 25.0      | 5.0       | ug/l  | 25.0  |        | 100  | 70-125 |     |       |            |  |
| 4-Chlorotoluene                  | 25.3      | 5.0       | ug/l  | 25.0  |        | 101  | 75-125 |     |       |            |  |
| 1,2-Dibromo-3-chloropropane      | 20.4      | 5.0       | ug/l  | 25.0  |        | 82   | 50-135 |     |       |            |  |
| Dibromochloromethane             | 29.4      | 2.0       | ug/l  | 25.0  |        | 118  | 70-140 |     |       |            |  |
| 1,2-Dibromoethane (EDB)          | 24.4      | 2.0       | ug/l  | 25.0  |        | 98   | 75-125 |     |       |            |  |
| Dibromomethane                   | 25.1      | 2.0       | ug/l  | 25.0  |        | 100  | 70-125 |     |       |            |  |
| 1,2-Dichlorobenzene              | 25.6      | 2.0       | ug/l  | 25.0  |        | 102  | 75-120 |     |       |            |  |
| 1,3-Dichlorobenzene              | 26.4      | 2.0       | ug/l  | 25.0  |        | 106  | 75-120 |     |       |            |  |
| 1,4-Dichlorobenzene              | 26.6      | 2.0       | ug/l  | 25.0  |        | 107  | 75-120 |     |       |            |  |
| Dichlorodifluoromethane          | 22.1      | 5.0       | ug/l  | 25.0  |        | 88   | 35-155 |     |       |            |  |
| 1,1-Dichloroethane               | 24.8      | 2.0       | ug/l  | 25.0  |        | 99   | 70-125 |     |       |            |  |
| 1,2-Dichloroethane               | 24.1      | 2.0       | ug/l  | 25.0  |        | 97   | 60-140 |     |       |            |  |
| 1,1-Dichloroethene               | 23.8      | 5.0       | ug/l  | 25.0  |        | 95   | 70-125 |     |       |            |  |
| cis-1,2-Dichloroethene           | 25.2      | 2.0       | ug/l  | 25.0  |        | 101  | 70-125 |     |       |            |  |
| trans-1,2-Dichloroethene         | 24.6      | 2.0       | ug/l  | 25.0  |        | 98   | 70-125 |     |       |            |  |
| 1,2-Dichloropropane              | 25.4      | 2.0       | ug/l  | 25.0  |        | 102  | 70-125 |     |       |            |  |
| 1,3-Dichloropropane              | 24.7      | 2.0       | ug/l  | 25.0  |        | 99   | 70-120 |     |       |            |  |
| 2,2-Dichloropropane              | 31.2      | 2.0       | ug/l  | 25.0  |        | 125  | 65-140 |     |       |            |  |
| cis-1,3-Dichloropropene          | 26.5      | 2.0       | ug/l  | 25.0  |        | 106  | 75-125 |     |       |            |  |
| trans-1,3-Dichloropropene        | 27.2      | 2.0       | ug/l  | 25.0  |        | 109  | 70-125 |     |       |            |  |
| 1,1-Dichloropropene              | 25.3      | 2.0       | ug/l  | 25.0  |        | 101  | 75-130 |     |       |            |  |
| Ethylbenzene                     | 25.4      | 2.0       | ug/l  | 25.0  |        | 101  | 75-125 |     |       |            |  |

#### **TestAmerica** Irvine





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Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    | Reporting |       |       | Spike | Source | e %REC |        |     | RPD   | Data       |
|------------------------------------|-----------|-------|-------|-------|--------|--------|--------|-----|-------|------------|
| Analyte                            | Result    | Limit | Units | Level | Result | %REC   | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0226 Extracted: 10/04/10 | <u> </u>  |       |       |       |        |        |        |     |       |            |
| LCS Analyzed: 10/04/2010 (10J0226  | -BS1)     |       |       |       |        |        |        |     |       |            |
| Hexachlorobutadiene                | 26.7      | 5.0   | ug/l  | 25.0  |        | 107    | 65-135 |     |       |            |
| Isopropylbenzene                   | 24.8      | 2.0   | ug/l  | 25.0  |        | 99     | 75-130 |     |       |            |
| p-Isopropyltoluene                 | 25.8      | 2.0   | ug/l  | 25.0  |        | 103    | 75-125 |     |       |            |
| Methylene chloride                 | 22.2      | 5.0   | ug/l  | 25.0  |        | 89     | 55-130 |     |       |            |
| Naphthalene                        | 24.9      | 5.0   | ug/l  | 25.0  |        | 100    | 55-135 |     |       |            |
| n-Propylbenzene                    | 25.4      | 2.0   | ug/l  | 25.0  |        | 102    | 75-130 |     |       |            |
| Styrene                            | 25.3      | 2.0   | ug/l  | 25.0  |        | 101    | 75-130 |     |       |            |
| 1,1,1,2-Tetrachloroethane          | 22.4      | 5.0   | ug/l  | 25.0  |        | 89     | 70-130 |     |       |            |
| 1,1,2,2-Tetrachloroethane          | 25.5      | 2.0   | ug/l  | 25.0  |        | 102    | 55-130 |     |       |            |
| Tetrachloroethene                  | 26.3      | 2.0   | ug/l  | 25.0  |        | 105    | 70-125 |     |       |            |
| Toluene                            | 24.9      | 2.0   | ug/l  | 25.0  |        | 100    | 70-120 |     |       |            |
| 1,2,3-Trichlorobenzene             | 26.1      | 5.0   | ug/l  | 25.0  |        | 104    | 65-125 |     |       |            |
| 1,2,4-Trichlorobenzene             | 26.6      | 5.0   | ug/l  | 25.0  |        | 106    | 70-135 |     |       |            |
| 1,1,1-Trichloroethane              | 25.7      | 2.0   | ug/l  | 25.0  |        | 103    | 65-135 |     |       |            |
| 1,1,2-Trichloroethane              | 25.0      | 2.0   | ug/l  | 25.0  |        | 100    | 70-125 |     |       |            |
| Trichloroethene                    | 26.0      | 2.0   | ug/l  | 25.0  |        | 104    | 70-125 |     |       |            |
| Trichlorofluoromethane             | 27.4      | 5.0   | ug/l  | 25.0  |        | 109    | 65-145 |     |       |            |
| 1,2,3-Trichloropropane             | 25.0      | 10    | ug/l  | 25.0  |        | 100    | 60-130 |     |       |            |
| 1,2,4-Trimethylbenzene             | 25.8      | 2.0   | ug/l  | 25.0  |        | 103    | 75-125 |     |       |            |
| 1,3,5-Trimethylbenzene             | 25.2      | 2.0   | ug/l  | 25.0  |        | 101    | 75-125 |     |       |            |
| Vinyl chloride                     | 23.3      | 5.0   | ug/l  | 25.0  |        | 93     | 55-135 |     |       |            |
| m,p-Xylenes                        | 52.4      | 2.0   | ug/l  | 50.0  |        | 105    | 75-125 |     |       |            |
| o-Xylene                           | 26.2      | 2.0   | ug/l  | 25.0  |        | 105    | 75-125 |     |       |            |
| Xylenes, Total                     | 78.5      | 4.0   | ug/l  | 75.0  |        | 105    | 70-125 |     |       |            |
| Di-isopropyl Ether (DIPE)          | 23.2      | 5.0   | ug/l  | 25.0  |        | 93     | 60-135 |     |       |            |
| Ethyl tert-Butyl Ether (ETBE)      | 21.8      | 5.0   | ug/l  | 25.0  |        | 87     | 65-135 |     |       |            |
| Methyl-tert-butyl Ether (MTBE)     | 20.4      | 5.0   | ug/l  | 25.0  |        | 82     | 60-135 |     |       |            |
| tert-Amyl Methyl Ether (TAME)      | 20.9      | 5.0   | ug/l  | 25.0  |        | 84     | 60-135 |     |       |            |
| tert-Butanol (TBA)                 | 139       | 50    | ug/l  | 125   |        | 111    | 70-135 |     |       |            |
| Surrogate: 4-Bromofluorobenzene    | 23.6      |       | ug/l  | 25.0  |        | 94     | 80-120 |     |       |            |
| Surrogate: Dibromofluoromethane    | 24.2      |       | ug/l  | 25.0  |        | 97     | 80-120 |     |       |            |
| Surrogate: Toluene-d8              | 24.9      |       | ug/l  | 25.0  |        | 100    | 80-120 |     |       |            |

#### **TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Project ID: 720-30863

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                  |                 | Reporting |       | Spike | Source    |           | %REC   |     | RPD   | ) Data     |
|----------------------------------|-----------------|-----------|-------|-------|-----------|-----------|--------|-----|-------|------------|
| Analyte                          | Result          | Limit     | Units | Level | Result    | %REC      | Limits | RPD | Limit | Qualifiers |
| Batch: 10J0226 Extracted: 10/04/ | <u>/10</u>      |           |       |       |           |           |        |     |       |            |
| Matrix Spike Analyzed: 10/04/201 | 0 (10J0226-MS1) |           |       |       | Source: I | TJ0046-03 | 3      |     |       |            |
| Benzene                          | 28.4            | 2.0       | ug/l  | 25.0  | ND        | 114       | 65-125 |     |       |            |
| Bromobenzene                     | 28.6            | 5.0       | ug/l  | 25.0  | ND        | 114       | 70-125 |     |       |            |
| Bromochloromethane               | 29.6            | 5.0       | ug/l  | 25.0  | ND        | 118       | 65-135 |     |       |            |
| Bromodichloromethane             | 33.9            | 2.0       | ug/l  | 25.0  | ND        | 136       | 70-135 |     |       | MI         |
| Bromoform                        | 34.5            | 5.0       | ug/l  | 25.0  | ND        | 138       | 55-135 |     |       | <i>M1</i>  |
| Bromomethane                     | 28.6            | 5.0       | ug/l  | 25.0  | ND        | 114       | 55-145 |     |       |            |
| n-Butylbenzene                   | 29.6            | 5.0       | ug/l  | 25.0  | ND        | 118       | 65-135 |     |       |            |
| sec-Butylbenzene                 | 30.0            | 5.0       | ug/l  | 25.0  | ND        | 120       | 70-125 |     |       |            |
| tert-Butylbenzene                | 28.3            | 5.0       | ug/l  | 25.0  | ND        | 113       | 65-130 |     |       |            |
| Carbon tetrachloride             | 35.6            | 5.0       | ug/l  | 25.0  | ND        | 143       | 65-140 |     |       | <i>M1</i>  |
| Chlorobenzene                    | 28.3            | 2.0       | ug/l  | 25.0  | ND        | 113       | 75-125 |     |       |            |
| Chloroethane                     | 28.0            | 5.0       | ug/l  | 25.0  | ND        | 112       | 55-140 |     |       |            |
| Chloroform                       | 29.0            | 2.0       | ug/l  | 25.0  | 0.460     | 114       | 65-135 |     |       |            |
| Chloromethane                    | 24.6            | 5.0       | ug/l  | 25.0  | ND        | 98        | 45-145 |     |       |            |
| 2-Chlorotoluene                  | 27.8            | 5.0       | ug/l  | 25.0  | ND        | 111       | 65-135 |     |       |            |
| 4-Chlorotoluene                  | 28.3            | 5.0       | ug/l  | 25.0  | ND        | 113       | 70-135 |     |       |            |
| 1,2-Dibromo-3-chloropropane      | 25.2            | 5.0       | ug/l  | 25.0  | ND        | 101       | 45-145 |     |       |            |
| Dibromochloromethane             | 33.4            | 2.0       | ug/l  | 25.0  | ND        | 133       | 65-140 |     |       |            |
| 1,2-Dibromoethane (EDB)          | 28.9            | 2.0       | ug/l  | 25.0  | ND        | 116       | 70-130 |     |       |            |
| Dibromomethane                   | 30.1            | 2.0       | ug/l  | 25.0  | ND        | 121       | 65-135 |     |       |            |
| 1,2-Dichlorobenzene              | 28.5            | 2.0       | ug/l  | 25.0  | ND        | 114       | 75-125 |     |       |            |
| 1,3-Dichlorobenzene              | 30.1            | 2.0       | ug/l  | 25.0  | ND        | 121       | 75-125 |     |       |            |
| 1,4-Dichlorobenzene              | 30.0            | 2.0       | ug/l  | 25.0  | ND        | 120       | 75-125 |     |       |            |
| Dichlorodifluoromethane          | 18.1            | 5.0       | ug/l  | 25.0  | ND        | 73        | 25-155 |     |       |            |
| 1,1-Dichloroethane               | 54.0            | 2.0       | ug/l  | 25.0  | 24.7      | 117       | 65-130 |     |       |            |
| 1,2-Dichloroethane               | 27.8            | 2.0       | ug/l  | 25.0  | ND        | 111       | 60-140 |     |       |            |
| 1,1-Dichloroethene               | 27.1            | 5.0       | ug/l  | 25.0  | ND        | 108       | 60-130 |     |       |            |
| cis-1,2-Dichloroethene           | 37.3            | 2.0       | ug/l  | 25.0  | 8.03      | 117       | 65-130 |     |       |            |
| trans-1,2-Dichloroethene         | 28.1            | 2.0       | ug/l  | 25.0  | ND        | 112       | 65-130 |     |       |            |
| 1,2-Dichloropropane              | 29.8            | 2.0       | ug/l  | 25.0  | ND        | 119       | 65-130 |     |       |            |
| 1,3-Dichloropropane              | 28.5            | 2.0       | ug/l  | 25.0  | ND        | 114       | 65-135 |     |       |            |
| 2,2-Dichloropropane              | 37.5            | 2.0       | ug/l  | 25.0  | ND        | 150       | 60-145 |     |       | Ml         |
| cis-1,3-Dichloropropene          | 30.6            | 2.0       | ug/l  | 25.0  | ND        | 122       | 70-130 |     |       |            |
| trans-1,3-Dichloropropene        | 31.3            | 2.0       | ug/l  | 25.0  | ND        | 125       | 65-135 |     |       |            |
| 1,1-Dichloropropene              | 29.3            | 2.0       | ug/l  | 25.0  | ND        | 117       | 70-135 |     |       |            |
| Ethylbenzene                     | 28.8            | 2.0       | ug/l  | 25.0  | ND        | 115       | 65-130 |     |       |            |

#### **TestAmerica** Irvine



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

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TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                     | Reporting     |       |       | Spike | Source    |           | %REC RPD |     |       | Data       |
|-------------------------------------|---------------|-------|-------|-------|-----------|-----------|----------|-----|-------|------------|
| Analyte                             | Result        | Limit | Units | Level | Result    | %REC      | Limits   | RPD | Limit | Qualifiers |
| Batch: 10J0226 Extracted: 10/04/10  | -             |       |       |       |           |           |          |     |       |            |
| Matrix Spike Analyzed: 10/04/2010 ( | (10J0226-MS1) |       |       |       | Source: I | ГЈ0046-03 | 3        |     |       |            |
| Hexachlorobutadiene                 | 30.3          | 5.0   | ug/l  | 25.0  | ND        | 121       | 60-135   |     |       |            |
| Isopropylbenzene                    | 27.8          | 2.0   | ug/l  | 25.0  | ND        | 111       | 70-135   |     |       |            |
| p-Isopropyltoluene                  | 29.5          | 2.0   | ug/l  | 25.0  | ND        | 118       | 65-130   |     |       |            |
| Methylene chloride                  | 26.2          | 5.0   | ug/l  | 25.0  | ND        | 105       | 50-135   |     |       |            |
| Naphthalene                         | 29.6          | 5.0   | ug/l  | 25.0  | ND        | 118       | 50-140   |     |       |            |
| n-Propylbenzene                     | 29.0          | 2.0   | ug/l  | 25.0  | ND        | 116       | 70-135   |     |       |            |
| Styrene                             | 28.3          | 2.0   | ug/l  | 25.0  | ND        | 113       | 50-145   |     |       |            |
| 1,1,1,2-Tetrachloroethane           | 25.5          | 5.0   | ug/l  | 25.0  | ND        | 102       | 65-140   |     |       |            |
| 1,1,2,2-Tetrachloroethane           | 31.7          | 2.0   | ug/l  | 25.0  | ND        | 127       | 55-135   |     |       |            |
| Tetrachloroethene                   | 49.9          | 2.0   | ug/l  | 25.0  | 20.5      | 118       | 65-130   |     |       |            |
| Toluene                             | 28.4          | 2.0   | ug/l  | 25.0  | ND        | 114       | 70-125   |     |       |            |
| 1,2,3-Trichlorobenzene              | 29.3          | 5.0   | ug/l  | 25.0  | ND        | 117       | 60-135   |     |       |            |
| 1,2,4-Trichlorobenzene              | 29.8          | 5.0   | ug/l  | 25.0  | ND        | 119       | 65-135   |     |       |            |
| 1,1,1-Trichloroethane               | 29.5          | 2.0   | ug/l  | 25.0  | ND        | 118       | 65-140   |     |       |            |
| 1,1,2-Trichloroethane               | 29.5          | 2.0   | ug/l  | 25.0  | ND        | 118       | 65-130   |     |       |            |
| Trichloroethene                     | 36.9          | 2.0   | ug/l  | 25.0  | 6.58      | 121       | 65-125   |     |       |            |
| Trichlorofluoromethane              | 30.4          | 5.0   | ug/l  | 25.0  | ND        | 122       | 60-145   |     |       |            |
| 1,2,3-Trichloropropane              | 27.6          | 10    | ug/l  | 25.0  | ND        | 110       | 55-135   |     |       |            |
| 1,2,4-Trimethylbenzene              | 29.2          | 2.0   | ug/l  | 25.0  | ND        | 117       | 55-135   |     |       |            |
| 1,3,5-Trimethylbenzene              | 28.7          | 2.0   | ug/l  | 25.0  | ND        | 115       | 70-130   |     |       |            |
| Vinyl chloride                      | 25.0          | 5.0   | ug/l  | 25.0  | ND        | 100       | 45-140   |     |       |            |
| m,p-Xylenes                         | 58.7          | 2.0   | ug/l  | 50.0  | ND        | 117       | 65-130   |     |       |            |
| o-Xylene                            | 29.1          | 2.0   | ug/l  | 25.0  | ND        | 116       | 65-125   |     |       |            |
| Xylenes, Total                      | 87.8          | 4.0   | ug/l  | 75.0  | ND        | 117       | 60-130   |     |       |            |
| Di-isopropyl Ether (DIPE)           | 27.5          | 5.0   | ug/l  | 25.0  | ND        | 110       | 60-140   |     |       |            |
| Ethyl tert-Butyl Ether (ETBE)       | 25.8          | 5.0   | ug/l  | 25.0  | ND        | 103       | 60-135   |     |       |            |
| Methyl-tert-butyl Ether (MTBE)      | 24.9          | 5.0   | ug/l  | 25.0  | ND        | 99        | 55-145   |     |       |            |
| tert-Amyl Methyl Ether (TAME)       | 25.4          | 5.0   | ug/l  | 25.0  | ND        | 101       | 60-140   |     |       |            |
| tert-Butanol (TBA)                  | 149           | 50    | ug/l  | 125   | ND        | 119       | 65-140   |     |       |            |
| Surrogate: 4-Bromofluorobenzene     | 23.7          |       | ug/l  | 25.0  |           | 95        | 80-120   |     |       |            |
| Surrogate: Dibromofluoromethane     | 25.4          |       | ug/l  | 25.0  |           | 102       | 80-120   |     |       |            |
| Surrogate: Toluene-d8               | 25.4          |       | ug/l  | 25.0  |           | 102       | 80-120   |     |       |            |

#### **TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

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TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                      |               | Reporting |       | Spike | Source    |           | %REC   |      | RPD   | Data       |
|--------------------------------------|---------------|-----------|-------|-------|-----------|-----------|--------|------|-------|------------|
| Analyte                              | Result        | Limit     | Units | Level | Result    | %REC      | Limits | RPD  | Limit | Qualifiers |
| Batch: 10J0226 Extracted: 10/04/10   |               |           |       |       |           |           |        |      |       |            |
| Matrix Spike Dup Analyzed: 10/04/201 | 10 (10J0226-M | SD1)      |       |       | Source: I | ТЈ0046-03 | 3      |      |       |            |
| Benzene                              | 28.6          | 2.0       | ug/l  | 25.0  | ND        | 114       | 65-125 | 0.5  | 20    |            |
| Bromobenzene                         | 29.1          | 5.0       | ug/l  | 25.0  | ND        | 116       | 70-125 | 2    | 20    |            |
| Bromochloromethane                   | 30.1          | 5.0       | ug/l  | 25.0  | ND        | 120       | 65-135 | 2    | 25    |            |
| Bromodichloromethane                 | 33.0          | 2.0       | ug/l  | 25.0  | ND        | 132       | 70-135 | 3    | 20    |            |
| Bromoform                            | 34.2          | 5.0       | ug/l  | 25.0  | ND        | 137       | 55-135 | 1    | 25    | MI         |
| Bromomethane                         | 29.1          | 5.0       | ug/l  | 25.0  | ND        | 116       | 55-145 | 2    | 25    |            |
| n-Butylbenzene                       | 30.2          | 5.0       | ug/l  | 25.0  | ND        | 121       | 65-135 | 2    | 20    |            |
| sec-Butylbenzene                     | 30.4          | 5.0       | ug/l  | 25.0  | ND        | 121       | 70-125 | 1    | 20    |            |
| tert-Butylbenzene                    | 28.9          | 5.0       | ug/l  | 25.0  | ND        | 116       | 65-130 | 2    | 20    |            |
| Carbon tetrachloride                 | 35.2          | 5.0       | ug/l  | 25.0  | ND        | 141       | 65-140 | 1    | 25    | MI         |
| Chlorobenzene                        | 28.9          | 2.0       | ug/l  | 25.0  | ND        | 115       | 75-125 | 2    | 20    |            |
| Chloroethane                         | 28.8          | 5.0       | ug/l  | 25.0  | ND        | 115       | 55-140 | 3    | 25    |            |
| Chloroform                           | 30.1          | 2.0       | ug/l  | 25.0  | 0.460     | 118       | 65-135 | 4    | 20    |            |
| Chloromethane                        | 25.4          | 5.0       | ug/l  | 25.0  | ND        | 102       | 45-145 | 3    | 25    |            |
| 2-Chlorotoluene                      | 28.3          | 5.0       | ug/l  | 25.0  | ND        | 113       | 65-135 | 2    | 20    |            |
| 4-Chlorotoluene                      | 28.8          | 5.0       | ug/l  | 25.0  | ND        | 115       | 70-135 | 2    | 20    |            |
| 1,2-Dibromo-3-chloropropane          | 24.8          | 5.0       | ug/l  | 25.0  | ND        | 99        | 45-145 | 2    | 30    |            |
| Dibromochloromethane                 | 32.6          | 2.0       | ug/l  | 25.0  | ND        | 130       | 65-140 | 2    | 25    |            |
| 1,2-Dibromoethane (EDB)              | 28.4          | 2.0       | ug/l  | 25.0  | ND        | 113       | 70-130 | 2    | 25    |            |
| Dibromomethane                       | 29.0          | 2.0       | ug/l  | 25.0  | ND        | 116       | 65-135 | 4    | 25    |            |
| 1,2-Dichlorobenzene                  | 29.4          | 2.0       | ug/l  | 25.0  | ND        | 118       | 75-125 | 3    | 20    |            |
| 1,3-Dichlorobenzene                  | 30.4          | 2.0       | ug/l  | 25.0  | ND        | 122       | 75-125 | 1    | 20    |            |
| 1,4-Dichlorobenzene                  | 30.0          | 2.0       | ug/l  | 25.0  | ND        | 120       | 75-125 | 0.1  | 20    |            |
| Dichlorodifluoromethane              | 18.6          | 5.0       | ug/l  | 25.0  | ND        | 75        | 25-155 | 3    | 30    |            |
| 1,1-Dichloroethane                   | 55.8          | 2.0       | ug/l  | 25.0  | 24.7      | 125       | 65-130 | 3    | 20    |            |
| 1,2-Dichloroethane                   | 27.8          | 2.0       | ug/l  | 25.0  | ND        | 111       | 60-140 | 0.1  | 20    |            |
| 1,1-Dichloroethene                   | 28.0          | 5.0       | ug/l  | 25.0  | ND        | 112       | 60-130 | 3    | 20    |            |
| cis-1,2-Dichloroethene               | 38.0          | 2.0       | ug/l  | 25.0  | 8.03      | 120       | 65-130 | 2    | 20    |            |
| trans-1,2-Dichloroethene             | 29.1          | 2.0       | ug/l  | 25.0  | ND        | 117       | 65-130 | 4    | 20    |            |
| 1,2-Dichloropropane                  | 29.3          | 2.0       | ug/l  | 25.0  | ND        | 117       | 65-130 | 2    | 20    |            |
| 1,3-Dichloropropane                  | 29.6          | 2.0       | ug/l  | 25.0  | ND        | 119       | 65-135 | 4    | 25    |            |
| 2,2-Dichloropropane                  | 36.6          | 2.0       | ug/l  | 25.0  | ND        | 146       | 60-145 | 2    | 25    | <i>M1</i>  |
| cis-1,3-Dichloropropene              | 30.0          | 2.0       | ug/l  | 25.0  | ND        | 120       | 70-130 | 2    | 20    |            |
| trans-1,3-Dichloropropene            | 31.2          | 2.0       | ug/l  | 25.0  | ND        | 125       | 65-135 | 0.2  | 25    |            |
| 1,1-Dichloropropene                  | 29.4          | 2.0       | ug/l  | 25.0  | ND        | 118       | 70-135 | 0.4  | 20    |            |
| Ethylbenzene                         | 28.8          | 2.0       | ug/l  | 25.0  | ND        | 115       | 65-130 | 0.03 | 20    |            |

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Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### **METHOD BLANK/QC DATA**

## VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

|                                    |                 | Reporting |       | Spike | Source    |           | %REC   | RPD  | Data  |            |
|------------------------------------|-----------------|-----------|-------|-------|-----------|-----------|--------|------|-------|------------|
| Analyte                            | Result          | Limit     | Units | Level | Result    | %REC      | Limits | RPD  | Limit | Qualifiers |
| Batch: 10J0226 Extracted: 10/04/10 | <u>_</u>        |           |       |       |           |           |        |      |       |            |
| Matrix Spike Dup Analyzed: 10/04/2 | 2010 (10J0226-M | SD1)      |       |       | Source: I | ТЈ0046-03 | 3      |      |       |            |
| Hexachlorobutadiene                | 30.0            | 5.0       | ug/l  | 25.0  | ND        | 120       | 60-135 | 0.9  | 20    |            |
| Isopropylbenzene                   | 28.7            | 2.0       | ug/l  | 25.0  | ND        | 115       | 70-135 | 3    | 20    |            |
| p-Isopropyltoluene                 | 29.6            | 2.0       | ug/l  | 25.0  | ND        | 118       | 65-130 | 0.4  | 20    |            |
| Methylene chloride                 | 26.8            | 5.0       | ug/l  | 25.0  | ND        | 107       | 50-135 | 2    | 20    |            |
| Naphthalene                        | 28.9            | 5.0       | ug/l  | 25.0  | ND        | 115       | 50-140 | 2    | 30    |            |
| n-Propylbenzene                    | 29.6            | 2.0       | ug/l  | 25.0  | ND        | 118       | 70-135 | 2    | 20    |            |
| Styrene                            | 28.7            | 2.0       | ug/l  | 25.0  | ND        | 115       | 50-145 | 1    | 30    |            |
| 1,1,1,2-Tetrachloroethane          | 25.7            | 5.0       | ug/l  | 25.0  | ND        | 103       | 65-140 | 0.9  | 20    |            |
| 1,1,2,2-Tetrachloroethane          | 30.8            | 2.0       | ug/l  | 25.0  | ND        | 123       | 55-135 | 3    | 30    |            |
| Tetrachloroethene                  | 49.6            | 2.0       | ug/l  | 25.0  | 20.5      | 116       | 65-130 | 0.7  | 20    |            |
| Toluene                            | 28.6            | 2.0       | ug/l  | 25.0  | ND        | 114       | 70-125 | 0.6  | 20    |            |
| 1,2,3-Trichlorobenzene             | 29.1            | 5.0       | ug/l  | 25.0  | ND        | 116       | 60-135 | 0.6  | 20    |            |
| 1,2,4-Trichlorobenzene             | 30.0            | 5.0       | ug/l  | 25.0  | ND        | 120       | 65-135 | 0.6  | 20    |            |
| 1,1,1-Trichloroethane              | 30.5            | 2.0       | ug/l  | 25.0  | ND        | 122       | 65-140 | 3    | 20    |            |
| 1,1,2-Trichloroethane              | 29.5            | 2.0       | ug/l  | 25.0  | ND        | 118       | 65-130 | 0.07 | 25    |            |
| Trichloroethene                    | 36.5            | 2.0       | ug/l  | 25.0  | 6.58      | 120       | 65-125 | 0.9  | 20    |            |
| Trichlorofluoromethane             | 31.4            | 5.0       | ug/l  | 25.0  | ND        | 126       | 60-145 | 3    | 25    |            |
| 1,2,3-Trichloropropane             | 28.9            | 10        | ug/l  | 25.0  | ND        | 115       | 55-135 | 5    | 30    |            |
| 1,2,4-Trimethylbenzene             | 29.7            | 2.0       | ug/l  | 25.0  | ND        | 119       | 55-135 | 2    | 25    |            |
| 1,3,5-Trimethylbenzene             | 29.1            | 2.0       | ug/l  | 25.0  | ND        | 117       | 70-130 | 2    | 20    |            |
| Vinyl chloride                     | 26.0            | 5.0       | ug/l  | 25.0  | ND        | 104       | 45-140 | 4    | 30    |            |
| m,p-Xylenes                        | 59.6            | 2.0       | ug/l  | 50.0  | ND        | 119       | 65-130 | 1    | 25    |            |
| o-Xylene                           | 29.0            | 2.0       | ug/l  | 25.0  | ND        | 116       | 65-125 | 0.1  | 20    |            |
| Xylenes, Total                     | 88.6            | 4.0       | ug/l  | 75.0  | ND        | 118       | 60-130 | 1    | 20    |            |
| Di-isopropyl Ether (DIPE)          | 28.0            | 5.0       | ug/l  | 25.0  | ND        | 112       | 60-140 | 2    | 25    |            |
| Ethyl tert-Butyl Ether (ETBE)      | 26.3            | 5.0       | ug/l  | 25.0  | ND        | 105       | 60-135 | 2    | 25    |            |
| Methyl-tert-butyl Ether (MTBE)     | 25.2            | 5.0       | ug/l  | 25.0  | ND        | 101       | 55-145 | 1    | 25    |            |
| tert-Amyl Methyl Ether (TAME)      | 25.3            | 5.0       | ug/l  | 25.0  | ND        | 101       | 60-140 | 0.2  | 30    |            |
| tert-Butanol (TBA)                 | 148             | 50        | ug/l  | 125   | ND        | 118       | 65-140 | 1    | 25    |            |
| Surrogate: 4-Bromofluorobenzene    | 23.4            |           | ug/l  | 25.0  |           | 94        | 80-120 |      |       |            |
| Surrogate: Dibromofluoromethane    | 26.1            |           | ug/l  | 25.0  |           | 104       | 80-120 |      |       |            |
| Surrogate: Toluene-d8              | 25.0            |           | ug/l  | 25.0  |           | 100       | 80-120 |      |       |            |

#### **TestAmerica** Irvine



# tAmerico

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu

Project ID: 720-30863

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

#### DATA QUALIFIERS AND DEFINITIONS

- С Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- **M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- **M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- **P1** Sample received and analyzed without chemical preservation.
- R The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
- R-3 The RPD exceeded the acceptance limit due to sample matrix effects.
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- **Relative Percent Difference** RPD

### **ADDITIONAL COMMENTS**

#### For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

**TestAmerica** Irvine





17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TestAmerica San Francisco 1220 Quarry Lane Pleasanton, CA 94566 Attention: Surinder Sidhu Project ID: 720-30863

Report Number: ITJ0046

Sampled: 09/28/10 Received: 10/01/10

### **Certification Summary**

| TestAmerica Irvine |        |       |            |  |  |  |  |  |  |  |  |  |
|--------------------|--------|-------|------------|--|--|--|--|--|--|--|--|--|
| Method             | Matrix | Nelac | California |  |  |  |  |  |  |  |  |  |
| EPA 8260B          | Water  | Х     | Х          |  |  |  |  |  |  |  |  |  |

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

**TestAmerica** Irvine

| TestAmerica San Francisco                                       |                                       |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            |        |        |                         |                                   |           |
|---|---------------------------------------|--------------------|-------------|----------------------------------|-----------------------------|----------|---|----------|-------|--------|-----------|--------|---------|------------|--------|--------|-------------------------|-----------------------------------|-----------|
| 1220 Quarry Lane  |                                       |                    | C           | hain c                           | of C                        | ust      | tod   | v Re     | eco   | ord    | _         | -      |         |            |        | 4      | Iesia                   | merica                            | Ľ         |
| Pleasanton, CA 94566<br>Phone (925) 484-1919 Eax (925) 600 2002 |                                       |                    | -           |                                  |                             |          |   | <b>,</b> |       |        | -         | 17     | 7       | D          | 04     | 6      | THE LEADER IN E         | WIRONMENTAL TEST                  | 4G<br>4G  |
| Fibile (925) 404-1919 Pax (925) 600-3002                        | Sampler:                              |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            | - []   | 5      | COC No:                 |                                   |           |
| Client Information (Sub Contract Lab)                           |                                       |                    |             | Sid                              | hu, Su                      | rinder   |   |          |       |        |           |        | J       |            |        |        | 720-10137.1             |                                   |           |
| Chent Contact:<br>Shipping/Receiving                            | Phone:                                |                    |             | E-M<br>Sur                       | <sup>ail:</sup><br>inder.si | idhu@    | )testa                                      | mericai  | nc.co | m      |           |        |         |            |        |        | Page:<br>Page 1 of 1    |                                   |           |
| Company:<br>TestAmerica Laboratories, Inc                       |                                       |                    |             |                                  |                             |          |   | 4        | Analy | /sis   | Requ      | estec  |         |            |        |        | Job #:<br>720-30863-1   |                                   | Π         |
| Address:<br>17461 Derian Ave Suite 100                          | Due Date Request                      | ed:                |             |                                  |                             |          |   |          | Τ     |        | Ī         |        |         |            |        |        | Preservation Cod        | les:                              |           |
| City:   | TAT Requested (d                      | ays):              |             |                                  | - 12                        |          |   |          |       |        |           |        |         |            |        |        | A - HCL<br>B - NaOH     | M - Hexane<br>N - None            |           |
| Irvine<br>Siate Zio   | 4                                     |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            |        |        | C - Zn Acetate          | O - AsNaO2<br>P - Na2O4S          |           |
| CA, 92614-5817  |                                       |                    |             |                                  |                             | ŝ        |   |          |       |        |           |        |         |            |        |        | E - NaHSO4              | Q - Na2SO3                        |           |
| Phone:<br>949-261-1022(Tel) 949-261-1228(Fax)                   | PO #:                                 |                    |             |                                  | ٦_ 🛛                        |          | >   |          |       |        |           |        |         |            |        |        | G - Amchlor             | S - H2SO4                         |           |
| Email:  | WO #:                                 |                    |             |                                  | - N N                       | Q        |   |          |       |        |           |        |         |            |        | 10     | I - Ice<br>J - Di Water | U - Acetone                       |           |
| Project Name:   | Project #:                            |                    |             |                                  | - <mark>19</mark>           | 5        |   |          |       |        |           |        |         |            |        | liner  | K - EDTA<br>L - EDA     | W - ph 4-5<br>Z - other (specify) |           |
| Site:   | 72006908<br>SSOW#:                    |                    |             |                                  | - Under                     | $\infty$ |   |          |       |        |           |        |         |            |        | contra | Other:                  |                                   |           |
|   |                                       |                    | r           |                                  | San                         | CT .     |   |          |       |        |           |        |         |            |        | r of c |                         |                                   |           |
|   |                                       |                    | Sample      | Matrix                           | ered                        | TR       |   |          |       |        |           |        |         |            |        | mbe    |                         |                                   |           |
|   |                                       | Somalo             | Туре        | (W≠water,<br>S=solid,            | 1 Filt                      | Ő        |   |          |       |        |           |        |         |            |        | I Nu   |                         |                                   |           |
| Sample Identification - Client ID (Lab ID)                      | Sample Date                           | Time               | G=grab)     | O=waste/oil,<br>BT≏Tissue, A=Air | Field                       | SUB      |   |          |       |        |           |        |         |            |        | Tota   | Special In              | structions/Note:                  |           |
|   | $\mathbb{N}$                          | X                  | Preserva    | tion Code:                       | $\times$                    | 1        |   |          |       |        |           |        |         |            |        | X      |                         |                                   |           |
| MW-2 (720-30863-1)  | 9/28/10                               | 08:55<br>Pacific   |             | Water                            |                             | x        |   |          |       |        |           |        |         |            |        | З      |                         |                                   |           |
| MW-3 (720-30863-2)  | 9/28/10                               | 09:22<br>Pacific   |             | Water                            | П                           | X        |   |          |       |        |           |        |         |            |        | 3      |                         |                                   | _         |
| MW-4 (720-30863-3)  | 9/28/10                               | 10:00<br>Pacific   |             | Water                            |                             | X        |   |          |       |        |           |        |         |            |        | 3      | /                       |                                   |           |
| MW-5 (720-30863-4)  | 9/28/10                               | 09:48<br>Pacific   |             | Water                            |                             | X        |   |          |       |        |           |        |         |            |        | з      | /                       | 11:15                             |           |
|   |                                       |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            |        |        |                         | 10/11/10                          |           |
|   |                                       |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            | _      |        |                         | - t to 1                          |           |
|   |                                       |                    |             |                                  | +                           |          |   |          |       |        |           | +      |         |            |        |        | <b></b>                 |                                   | $\neg$    |
|   |                                       |                    |             |                                  | ╂╍╂╍                        |          |   |          |       |        |           |        |         |            | _      |        |                         |                                   | —         |
|   | · · · · · · · · · · · · · · · · · · · |                    |             |                                  | ╇                           |          |   |          |       |        |           |        |         |            |        | 2.5    |                         |                                   | $\square$ |
|   |                                       |                    |             |                                  |                             |          |   |          |       |        | _         |        |         |            |        |        |                         |                                   |           |
|   |                                       |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            |        |        |                         |                                   |           |
|   |                                       |                    |             |                                  |                             |          |   |          |       |        |           |        |         |            |        |        |                         |                                   |           |
| Possible Hazard Identification                                  |                                       |                    |             |                                  | Si                          | ample    | Disp  | osal (   | A fee | may    | be as     | sessed | if sar  | nples      | are re | etain  | ed longer than          | month)                            |           |
| Non-Hazard - Flammable Skin Irritant Pois                       | son B Unki                            | own L              | Radiologica | 1                                |                             |          | Return                                      | To Clie  | ent   |        | Dis       | posal  | By Lat  | )          |        | Arch   | nive For                | Months                            |           |
| Deliverable Requested: I, II, III, IV, Other (specify)          |                                       | _                  |             |                                  | S                           | pecial   | Instru                                      | ctions/  | QC R  | equire | ements    | :      |         |            |        |        |                         |                                   |           |
| Empty Kit Relinquished by:                                      | Date: Time:                           |                    |             |                                  |                             | :        |   |          |       |        |           | Meth   | od of S | Shipment:  |        |        |                         |                                   |           |
| Relinquished by:  | Date Time 20/10 1630 Company SF       |                    |             |                                  |                             | Rece     | eived by                                    | ŇИ       | R     | an.    | 0         |        | 10      | Date/Ti    | me     | 1      | , INZr                  | Company                           |           |
| Relinquished by:  | Date/filme:                           | Date/Time: Company |             |                                  |                             |          | vived by                                    | r:       | 20    | -4     | <u> Қ</u> |        |         | Date/Time: |        |        | 5 11-20                 | Company                           | -         |
| Relinquished by:  | Date/Time:                            |                    |             | Company                          |                             | Rece     | Received by: Date/Time:                     |          |       |        |           |        |         |            |        | ····   | Company                 |                                   |           |
| Custody Seals Intact: Custody Seal No.:                         |                                       | <u> </u>           | Pa          | ge 31 (                          | of 3                        | Coole    | Cooler Temperature(s) °C and Other Remarks: |          |       |        |           |        |         |            |        |        | 10/08/201               | ┍                                 |           |
|   |                                       |                    |             |                                  |                             |          |   |          |       |        |           | `      | - / /   | 4          | 57     |        |                         | UV L                              |           |

 $\sim$ 

720-30863

## 127187

## **Chain of Custody Record**

ProTech Consulting &

Engineering

1208 Main Street Redwood City, CA 94063 650.569.40200 / 650.569.4023 (fax) protech@tcg-international.com

|    |   | 1                       |                | ~ ~ 1                          |                |                      | <b>T</b>  |                              |              |              |             | —           |                  |     | <u> </u> |                  |        | <u> </u> |    |     |   | TCOC No.                 |  |  |
|----|---|-------------------------|----------------|--------------------------------|----------------|----------------------|-----------|------------------------------|--------------|--------------|-------------|-------------|------------------|-----|----------|------------------|--------|----------|----|-----|---|--------------------------|--|--|
|    | Client Contact  | Project Mar             | nager: Wood    | iv Loveiov                     |                |                      | _Site     | Site Contact: Rvan Cozart Dr |              |              |             |             |                  |     | Dat      | Date: 06/11/2010 |        |          |    |     |   |                          |  |  |
|    | Client Name: Kelly Moore Paint Company  | Tele: 415.38            | <u>31.2560</u> |                                |                |                      | Tele      | <u>e: 415</u>                | <u>.342.</u> | <u>9735.</u> | <del></del> | <del></del> | <del>, , ,</del> |     | Courier: |                  |        |          |    |     |   |                          |  |  |
|    | Address:  | -                       | Analysis 1     | urnaround )                    | fime           |                      | -         |                              |              | 1            |             |             |                  |     | 1        |                  |        |          |    |     |   | Lad Jod No.              |  |  |
|    | City/State/Zip:   | 4                       |                |                                |                |                      |           |                              |              | ŀ            |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    | Phone:650.592.8337 x4314  | 4                       |                |                                |                |                      |           |                              |              | ł            |             | ł           |                  | ŀ   |          |                  |        |          |    |     |   |                          |  |  |
|    | FAX:  | 4                       | 5-D?           | ay TAT                         |                | 1973 - 1<br>1979 - 1 | 1dau      | L Se l                       |              |              |             | ł           |                  |     |          |                  | 1      |          |    |     |   | Lab SDG No.              |  |  |
|    | Project Name: 969 SPA-GWM   | _                       |                | $\frac{1}{2} t_{\mu\nu}^{\mu}$ |                |                      | S P       | <u>ا</u>                     |              |              |             | l           |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    | Site: 969 San Pablo Avenue, Albany, CA  |                         |                |                                |                |                      | tere      | Į į                          |              |              |             | ŀ           |                  |     |          |                  |        | : [ .: ] |    |     |   |                          |  |  |
|    | Job #: 218-10   |                         |                | <u> </u>                       |                |                      |           |                              | Š            | ł            |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
| ř  | Sample Identification   | Sample<br>Date          | Sample<br>Time | Sample<br>Type                 | Matrix         | ⊈# of Ce             | ot.       |                              | EPA \$260-1  |              |             |             |                  |     |          |                  |        |          |    |     |   | Sample Specific Notes:   |  |  |
|    |   | 9/28/10                 | <u> </u>       | discrete                       | GW             | 3                    |           | 1                            | x            |              |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
| 2  |   | 9/28/10                 | <u> </u>       | discrete                       | GW             | 3                    | $\square$ | 1                            | x            | <u> </u>     | T           |             |                  |     |          | $\Box$           |        |          |    |     | Τ |                          |  |  |
| 27 | <u>MW-4</u>   | 9/28/10                 | <u> </u>       | discrete                       | GW             | 3                    |           | 1                            | x            |              |             |             |                  | ĹĻ  |          | Ц                |        |          |    |     |   |                          |  |  |
| 4  |   | 9/28/10                 | <u> </u>       | discrete                       | GW             | 3                    |           | 1                            | x            |              |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
| 1  |   | ,                       | 1              | <u> </u>                       | I              | <u> </u>             |           |                              |              |              |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    |   | '<br>'                  | ļ'             | <u> </u>                       | <u> </u> '     | <b>_</b>             |           |                              |              |              |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    |   | ,<br>/                  | <u> </u> '     | ·′                             | <u> </u> '     |                      |           |                              | $\bot$       |              |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    |   | _ <b></b> '             | <u> </u>       |                                | '              | <b>_</b>             |           | Ц                            | _            |              | <u> </u>    |             |                  | Ц   |          |                  |        |          |    |     |   |                          |  |  |
|    |   | ·'                      | <u> </u>       | ļ                              | <u>      '</u> | <u> </u>             | Щ         |                              | _            |              | 11          |             |                  |     |          |                  |        |          | ЦĻ |     |   |                          |  |  |
|    |   | <b></b> '               | <u> </u>       | ,<br>                          | - <b> </b> '   | <u> </u>             |           |                              |              |              | 44          | <u> </u>    |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    |   | '                       | <u> </u>       |                                | <u> </u> '     | <b>_</b>             |           |                              | _            |              | $\square$   |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    |   |                         | <u> </u>       | <u> </u>                       | <u> </u>       |                      | Ц         |                              | _            |              | <u> </u>    |             |                  |     | _        |                  |        |          |    |     | - |                          |  |  |
|    | Preservation Used: 1= Ice. 2= HCl: 3= H2SO4: 4=HNO3: 5=NaOH: 6=                     | = Other                 |                |                                |                |                      |           | L                            | بلسيه        | <u> </u>     |             |             |                  |     |          |                  |        |          |    |     |   |                          |  |  |
|    | Relinquished by:  | Company:                | -6-            |                                | Date/110       | 10                   | 732       |                              | Recen        | ved by:      | :<br>07     | <u>en</u>   | $\mathbb{N}$     | لمه | 0 (      | کیڈ              | Compar | ny<br>L  | 40 | hr_ | ù | Date/Time:<br>9-29-10932 |  |  |
|    | Relinquished by:  | Company:                |                | ,I                             | Date/Tirr      | ne:                  |           |                              | Receiv       | ved by:      | *           |             |                  |     | $\sim$   | C                | Compar | ny:      |    |     |   | Date/Time:               |  |  |
|    | Relinquished by:  | Company:                |                | ;                              | Date/Tim       | ae:                  |           |                              | Receiv       | ved by:      | :           |             |                  |     |          | C                | Compar | ny:      |    |     |   | Date/Time:               |  |  |
|    | Special Instructions/QC Requirements & Comments:   Report: Level 2   effle: STF EDF | Global ID:<br>Log Code: | 1              | 70600101674<br>PTCR            | ,<br>Ł         |                      |           |                              |              |              |             |             |                  | -   |          |                  |        |          |    |     |   | 7.92                     |  |  |

ЧU 32 Page

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## Login Sample Receipt Check List

#### Client: ProTech Consulting and Engineering

#### Login Number: 30863 Creator: Mullen, Joan List Number: 1

| Question   | T / F/ NA | Comment |
|--|-----------|---------|
| Radioactivity either was not measured or, if measured, is at or below background | N/A       |         |
| The cooler's custody seal, if present, is intact.                                | N/A       |         |
| The cooler or samples do not appear to have been compromised or tampered with.   | True      |         |
| Samples were received on ice.  | True      |         |
| Cooler Temperature is acceptable.  | True      |         |
| Cooler Temperature is recorded.  | True      |         |
| COC is present.  | True      |         |
| COC is filled out in ink and legible.  | True      |         |
| COC is filled out with all pertinent information.                                | True      |         |
| Is the Field Sampler's name present on COC?                                      | True      |         |
| There are no discrepancies between the sample IDs on the containers and the COC. | True      |         |
| Samples are received within Holding Time.  | True      |         |
| Sample containers have legible labels.   | True      |         |
| Containers are not broken or leaking.  | True      |         |
| Sample collection date/times are provided.                                       | True      |         |
| Appropriate sample containers are used.  | True      |         |
| Sample bottles are completely filled.  | True      |         |
| Sample Preservation Verified   | True      |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True      |         |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.     | True      |         |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True      |         |
| Multiphasic samples are not present.   | True      |         |
| Samples do not require splitting or compositing.                                 | True      |         |

#### Job Number: 720-30863-1

List Source: TestAmerica San Francisco

APPENDIX 2 -HISTORICAL MONITORING

Four groundwater monitor wells (MW-1, MW-2, MW-3, and MW-4) were installed to monitor groundwater conditions. The soil samples from the boring for MW-1 contained TEPH-d in the three samples collected between 5.5 ft and 10.5 ft below grade (fbg). The 10.5 fbg sample also contained Benzene, Xylenes, 1,1-DCA, 1,2-DCA, 1,1,1-TCA, and PCE. The soil sample collected 16 fbg in the boring for MW-2 contained Ethyl-Benzene and Xylenes. Soil samples from the other two soil borings for monitor wells MW-3 and MW-4 were below method detection limits (MDLs) for the compounds tested. The groundwater sample from monitor well MW-1 contained Benzene, 1,1-DCA, 1,1,1-TCA, Trichloroethylene (TCE), and PCE, while the groundwater samples from MW-2 and MW-3 were below method detection limits (MDLs) for all compounds tested. The groundwater near the former tankpit. They attributed this mounding to infiltration of surface water through the tankpit backfill.

Based on the results of soil sampling and groundwater results, Firestone decided to remove additional soil from the excavation in an attempt to remove the source of contamination. During this removal, monitor well MW-1 was destroyed. Results of confirmatory soil sampling indicated that TEPH-d was only detected in one of the sidewall samples (CS-3) at eight fbg at 3.8 ppm (ERM, 1990b).

Recommendations were made to perform quarterly groundwater monitoring for one year and then to re-evaluate the site conditions (ERM, 1990b). According to County personnel (Susan Hugo)<sup>17</sup> this work was never done.

ProTech performed a Phase I - Environmental Site Assessment (Phase I) in April 1998 on the property for K/M prior to their purchase of the property. During this task, ProTech located two of the three remaining groundwater monitor wells (MW-3 and MW-4), while well MW-2 was not evident during site reconnaissance activities. ProTech also identified five hydraulic lifts (Figure 2) that were present in the garage portion of the building (ProTech, 1998a).

After review of the Phase I report, K/M instructed ProTech to develop and sample the twogroundwater monitor wells (MW-3 and MW-4). In April 1998, ProTech developed the two groundwater monitor wells and collected groundwater samples for analysis for total petroleum hydrocarbons, characterized as gasoline (TPH-g), TEPH-d, TEPH, characterized as kerosene (TEPH-k), TEPH, characterized as motor oil (TEPH-mo), BTEX, O&G, and volatile organic compounds (VOCs). Results of the groundwater analyses (Figure 3) indicated that monitor well MW-3 was below MDLs for the compounds tested for, while monitor well MW-4 contained 1,1-DCA, cis-1,2-Dichloroethylene (cis-1,2-DCE), and PCE (ProTech, 1998b) at levels of interest. With the Phase I report and these groundwater results in-hand, K/M purchased the property.

In September 1998, K/M began removal of the five hydraulic lifts. ProTech witnessed the removal of all five lifts and collected soil samples from three of the pits (Pit #s 1, 4, and 5) where the rams were compromised and/or soil staining was evident. The soil samples were collected after soil was excavated to a point where contamination was no longer evident. The analyses,

<sup>&</sup>lt;sup>17</sup> Personal communication with Susan Hugo, June 1998.

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which were specified by ACHA, were for total extractable petroleum hydrocarbons, characterized as hydraulic oil (TEPH-ho), VOCs, and LUFT Manual metals. Results from two of the pits (Pit #s 4, and 5) were below the MDLs of the analyses or present below regulated concentrations. Results from the third pit (Pit #1) indicated that TEPH-ho was detected at 500 ppm. Additional soil was excavated from this pit (approximately 3 ft below the groundwater table) and a second soil sample was collected for analysis. Results (Figure 2) indicated that TEPH-ho was still present at 1,400 ppm (ProTech, 1998c).

Results of soil samples were collected from "likely dirty" stockpiled soil indicated that petroleum hydrocarbons (TEPH-ho) required regulated disposal. This stockpiled soil was disposed of as a Class II - designated waste at Forward Landfill (ProTech, 1998c).

ACHCSA-EHS agreed that the "likely clean" soil, which came from the upper 3 feet of material in each pit and exhibited no evidence of contamination, could be re-used on-site as backfill above the water table. They further agreed that further assessment of the site would be through groundwater monitoring and the installation of two additional groundwater monitor wells (ACHCSA-EHS, 1999).

ProTech prepared a Workplan for the installation of the two additional groundwater monitor wells that the County requested plus a survey for top-of-casing (TOC) elevations of the new and existing wells (ProTech, 1999a).

Two groundwater monitor wells (MW-5 and MW-6) were installed March 1999. Soil samples were collected from the two soil borings for analysis for petroleum products, aromatic hydrocarbons, the fuel additive: methyl tert-butyl ether (MTBE), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). The results indicated that only the soil samples from the boring for well MW-6 contained any compounds analyzed for above their method detection limits (MDLs). The only compound found was TEPH-d at 1.9 ppm (8 fbg) and 3.8 ppm (18 fbg). The two new wells (MW-5 and MW-6) were developed and purged, and the existing two wells (MW-3 and MW-4) were purged prior to collecting groundwater samples. The results of groundwater sampling indicate that none of the wells contains measurable petroleum hydrocarbons (TPH-g or TEPH-d), aromatic hydrocarbons (BTEX), MTBE, or SVOCs. All four wells contained 1,1-DCA, and PCE, while wells MW-5 and MW-6 also contained chloroform, and TCE, and well MW-4 also contained 1,1-DCE, cis-1,2-DCE, and vinyl chloride.<sup>18</sup> California maximum contaminant levels (MCLs) have been exceeded for 1,1-DCA, cis-1,2-DCE, PCE, and vinyl chloride. The four monitor wells (MW3 through MW-6 were surveyed TOC elevations. Monitor well MW-2 was not located during this field effort. ProTech recommended that the TPH-g, TEPH-d, BTEX, and MTBE, be removed from the analyte list for quarterly monitoring (ProTech, 1999b).

<sup>&</sup>lt;sup>18</sup> 1,1-DCA was improperly reported as 1,2-DCA in the April 1999 well installation report. All data tables have been corrected for this report. 1,2-DCA has not been detected by ProTech in its three sampling efforts, while 1,1-DCA has.

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**APPENDIX 3 – STANDARD OPERATING PROCEDURES**
# **SOP-4 - GROUNDWATER DEVELOPMENT PURGING AND SAMPLING**

## Well Development

Prior to water sampling, 72 hrs after well development, each well is purged by evacuating a minimum of three well-casing volumes of groundwater or until the one or more of parameters: temperature, conductivity, and pH of the discharge water stabilize. If a well is purged dry before three casing volumes have been removed, the sample will be taken after the well has recovered to within 80 percent of the static water level. Purged water is drummed so that it can be profiled and disposed of appropriately.

## Well Purging

A well is purged the wells using a 2-stage purge/sampling pump. We dedicate the down-hole tubing for the wells to avoid the introduction of foreign material thus preventing cross-contamination. We cleaned the purge/sampling pump, using a triple-rinse setup<sup>19</sup>, between wells. During purging, we measured the parameters: pH, conductivity, and temperature, while we observed clarity and/or turbidity of water. We monitored the parameters after a few gallons have been removed, at the mid-point of pumping, and at the end of pumping. Sampling of groundwater proceeded once purging was complete.

## Well Sampling

Forty-milliliter (ml) glass volatile-organic-analysis (VOA) vials, with Teflon septa, are used as sample containers for volatile organic compounds (VOC) analysis. For other analyses, the appropriate EPA-approved sampling containers are used. The groundwater sample is decanted into each VOA vial in such a manner that there is a meniscus at the top of the vial. The cap is quickly placed over the top of the vial and securely tightened. The VOA vial is then inverted and tapped to see if air bubbles are present. If none are present, the sample is labeled and refrigerated for delivery under chain-of-custody to the laboratory. Label information should include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample can be collected from at least one well. This sample is put on hold at the laboratory. A trip blank is prepared at the office and placed in the transport cooler. It remains in the cooler during the entire sample transport process. The trip blank is placed on hold pending any anomalous results. A field blank is prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a bladder pump or bailer is cleaned following its use in a well, prior to its use in a second well, and is analyzed along with the other samples. The field blank demonstrates the quality of in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all the well purging and water sampling equipment that is not dedicated to a well is triple-rinsed between each well. As a secondary precaution, wells are sampled in order of least to highest concentrations as established by previous analyses.

<sup>&</sup>lt;sup>19</sup> A triple-rinse setup is three buckets, the first with water and TSP, the second with water, and the third with DI water. The pump is soaked and scrubbed with a scrub brush in the first bucket to remove contaminants from the outside and we run the pump to clean the inside. We rinse the pump vigorously in the second bucket, and rinse again in the third bucket. We run the pump at each stage to the flush the inside. The order in which we purge the wells is cleanest to dirtiest.

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# SOP-8 - LIQUID LEVEL GAUGING USING WATER LEVEL METER OR INTERFACE PROBE

The complete list of field equipment for liquid level gauging is assembled in the Technical office prior to departure to the field. This includes the probe(s), light filter(s), and product bailer(s) to be used for liquid levels (tested in test well before departure). The field kit also includes cleaning supplies (buckets, TSP, spray bottles, and deionized water) to clean the equipment between gauging wells.

When using the water level probe to gauge liquid levels, the probe tip is lowered into the well until the unit sounds. The top-of-casing (TOC) point is determined. This point is marked with a dot, or a groove, or is the obvious high point on the casing on the north side. The place on the probe-cord that corresponds with this TOC point is marked and an engineer's tape is used to measure the distance between the probe end and marking on the cord. This measurement is then recorded on the liquid level data sheet as depth to water (DTW).<sup>20</sup>

When using the interface probe to gauge liquid levels, clamping it to the metal stovepipe or another metal object nearby first grounds the probe. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case. After grounding the probe, the top of the well casing is fitted with a light filter to insure that sunlight does not interfere with the operation of the probe's optical mechanisms. The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates that the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a solid tone. In either case, this is the depth-to-groundwater (DTW) measurement. The solid tone indicates that floating hydrocarbons are present on top of the groundwater. To determine the thickness of the floating hydrocarbons, the probe is slowly raised until the solid tone ceases. This is the depth-to-floating hydrocarbon (DTFH) measurement. To determine the thickness of the sinking hydrocarbons, the probe is slowly raised, from the bottom, until the solid tone turns into an oscillating tone. This is the depth-to-sinking hydrocarbon (DTSH) measurement. The process of lowering and raising the probe must be repeated several times to insure accurate measurements. DTW and DTFH or DTSH measurements are recorded in hundredths of feet on the liquid level data sheet. Liquid hydrocarbon thickness (PT) is calculated by difference Depth-to-Product (DTP) and the DTW. This measurement is recorded on the data sheet as liquid hydrocarbon thickness (PT). When floating hydrocarbons are found in a well, a bottom-loading product bailer may be lowered partially through the water/liquid hydrocarbon interface to confirm the thickness of floating hydrocarbons on the water surface. When sinking hydrocarbons are found a product bailer may be lowered through the water/liquid hydrocarbon interface, at the bottom of the well, to confirm the thickness of sinking hydrocarbons beneath the water.

In order to avoid cross contamination of wells during the liquid level gauging process, wells are gauged in a clean to dirty order (where this information is available). In addition, any gauging equipment is cleaned with TSP and water and thoroughly rinsed with deionized water before daily use, before gauging another well on a site, and at the completion of daily use.

<sup>&</sup>lt;sup>20</sup> <sup>20</sup> The volume of groundwater that needs removal from each well is determined by calculating the water column height (WCH), using [DTW-TD=WCH], then determining the cubic feet ( $ft^3$ ), using [WCH\* $\Pi$ \* $r^2$ ], where r = radius of the well casing, and then converting  $ft^3$  to gallons, using [ $ft^3$  \* 7.48].

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# SOP-10 - SAMPLE LABELING & CHAIN-OF-CUSTODY

To ensure correct analysis and integrity of any sample, correct sample labeling and the accompaniment of a chainof-custody (COC) form with all samples from the field to the designated analytic laboratory is mandatory. The label of a sample must include, at a minimum, the following items:

- Sample identification number
- Location of sample collection
- Date and time of sample collection
- Name of company collecting sample
- Preserved or not

Once this data has been put on the sample container, it must be transferred to the COC. A COC accompanies every shipment of samples and establishes the documentation necessary to trace sample possession, as well as evidence of collection, shipment, laboratory receipt, analysis requested and laboratory custody until the time of disposal. The COC form must include, at a minimum, the following items:

- Sample identification number
- Location of sample collection
- Date and time of sample collection
- Analysis required
- Sample type
- Preservative used, if any
- Names of all samplers
- Signatures of personnel relinquishing and receiving samples
- Laboratory sample number and log number (recorded by laboratory personnel)
- Company contact name and project number (recorded by laboratory personnel)
- Sample condition and temperature (recorded by laboratory personnel)

Sample transfer and shipment is always accompanied by a COC. The initial preparation of the COC occurs in the office and completed in the field by the personnel collecting the samples. Each sample is assigned a unique identification number that represents the specific sampling location. The identification numbers are entered on the COC accompanied by the requested analysis, preservative used, if any, type of sample collected, and type of sample container. Any special instructions are included here.

If the field personnel deliver the samples to the laboratory, they will at that time sign the COC form and relinquish the samples. At this point, the Quality Control Coordinator, or the representative for the laboratory, will check to make sure all samples are present and note the condition and integrity of each sample. After all samples have been documented as received by the laboratory personnel, they will sign the COC form and issue the delivering personnel a copy. The laboratory with the analytic data report should also return a copy of the signed COC form.

If the samples are delivered by courier, or other commercial carrier, the container of samples shall be sealed, and a custody tape will be applied to the container to seal it and to signal any tampering with the container. The courier will sign the COC taking ownership of the samples that the samplers have relinquished by also signing the COC. The receipt form the courier will be attached to the COC copy retained by the relinquishing personnel and serve as an extension of the COC.

Any changes to a COC must be initialed and copies of the revised COC must be distributed to all appropriate personnel.

APPENDIX 4 – SUMMARY RESUMES

### **Dr. C. Hugh Thompson, P.E., DEE** Principal Consulting Environmental Engineer

#### Years of Experience with This Firm: 9 with Other Firms: 31

#### Education: Degree(s)/ Year/ Specialization:

- ScD, 1968, Environmental Engineering, Washington University, St. Louis, MO
- M.S., 1965, Civil Engineering Water Resources, New Mexico State University
- B.S., 1964, Civil Engineering Sanitary, New Mexico State University

#### **Active Registrations:**

- Professional Engineer # 35856, State of California
- Professional Engineer # 17893, State of Michigan
- Professional Engineer # 8298, State of Virginia
- Professional Engineer State of Arizona, (pending)
- Professional Engineer State of Nevada, (pending)
- General Engineering Contractor (Class A) California (inactive)
- 40 hours OSHA Management Training
- Diplomat # 92-20070 American Academy of Environmental Engineers

#### **Experience and Qualifications:**

- -1997 Present Principal Environmental Engineering Consultant, TCG/ProTech/HTA
- -1985 1997 Officer in 3 national environmental consulting firms: URS Corp., Roy F. Weston, Law Engineering, and Environmental
- -1980 1985 Corporate Director of Environmental Affairs and Operations, Aerojet General Corporation
- -1978 1980 Director Office of Hazardous Materials Research, Battelle Memorial Institute
- -1970 1978 US Government: Director Office of Hazardous and Toxic Substances, USEPA

- Industrial Environmental Issue Definition and Strategic Planning and Resolution

- Pollution Prevention/Waste Minimization Plans
- Site and Building Investigations, Mitigation Design and Implementation
- Risk Management and Large Program Management
- Corporate Compliance Program Design and Implementation
- Industrial Waste Treatment Design and Pilot Studies
- Treatment Technology Development and Applications
- SPCC and Spill Response Plans
- Environmental and OSHA Training
- International Pollution Agreement Technical Support
- Installation Restoration Programs
- Municipal Waste Treatment Operation and Design

Dr. Thompson heads up the engineering group. Clients are well represented by Dr. Thompson's wealth of experience in site investigation and assessment, remedial design and implementation. Dr. Thompson also provides expert witness services to clients on a myriad of engineering disciplines.

#### SHERWOOD LOVEJOY, JR., P.G., R.E.A., C.E.I., C.E.C., C.M.A., C.M.I. PRINCIPAL CONSULTING HYDROGEOLOGIST / REGISTERED ENVIRONMENTAL ASSESSOR

#### Years of Experience with This Firm: <u>16</u> with Other Firms: <u>8</u>

#### Education: Degree(s) / Year / Specialization:

- M.S., 1993, Environmental Science and Management, University of San Francisco
- B.A., 1982, Geology, University of Rhode Island, Kingston, Rhode Island
- B.S., 1981, Zoology, University of Rhode Island, Kingston, Rhode Island
- Graduate Studies, 1982 1983 Hydrology, Geophysics, Advanced Structural Geology and Geochemistry, University of Maryland, College Park, Maryland

#### **Active Registrations:**

- Professional Geologist #TN-1566, State of Tennessee
- Professional Geologist #PG-2166, State of Wyoming
- Registered Environmental Assessor # REA (I)-03171, State of California
- General Engineering Contractor's (Class A) #540389, State of California
- Class A Hazardous Waste Removal Certification #540389, State of California
- Well Driller License (C-57), #540389, State of California
- Certified Environmental Inspector #6331, National Registration for EAA,
- Certified Environmental Consultant, #6331, National Registration for EAA
- Certified Mold Assessor, #6331, National Registration for EAA
- Certified Mold Inspector, #6331, National Registration for EAA
- 40 Hour OSHA and 8 Hour OSHA Management Training

#### **Experience and Qualifications:**

- 1991-Present Principal Consulting Hydrogeologist, TCG/ProTech/HTA
- 1994 1995 President/Principal Hydrogeologist, MRD Environmental Services, Inc.
- 1990 1991 President/CEO/Principal Hydrogeologist, Hawaiian Geologic Resources, Inc.
- 1988 1991 President/CEO/Principal Hydrogeologist, Western Geologic Resources, Inc.
  - Environmental Site Investigation & Assessment
  - Remediation Strategy Development
  - Facility Demolition/Plant Reclamation Strategy Development and Oversight
  - Underground Tank Compliance & Soil Remediation of Fuel Contamination
  - Demolition/Reconstruction Management and Oversight
  - Hydrogeological Assessment and Modeling
  - Groundwater Monitor Well Installation, Sampling, and Monitoring
  - Chemical Stabilization of Metals and pH in Soil
  - Mine Audits, Investigations, Reclamation Studies, and Reclamation Design
  - Regulatory Liaison, Negotiation, and Site Closure
  - Construction Management and Contractor Oversight

The surface and subsurface contamination investigation and remediation program is headed by Mr. Lovejoy. Clients are well represented by Mr. Lovejoy's extensive experience and expertise in the latest soil and groundwater investigation and remediation techniques and methods. In addition, clients benefit as they are skillfully represented during regulatory agency interaction, negotiation and permitting.

## **Ryan Cozart**

Geologist/Environmental Assessor/Asbestos & Lead Technician

## Years of Experience with This Firm: <u>5</u> with Other Firms: <u>2</u>

## **Education: Degrees / Year / Specialization:**

- B.S., 1998, Geology, California State – Hayward

## **Active Registrations:**

- 40 Hour OSHA Training

## **Experience and Qualifications:**

- 2001 Present Geologist/Environmental Assessor/Asbestos & Lead Technician, TCG/ProTech/HTA
- 2000 2001 Polarized Light Microscope Analyst, EMSL
- 1998 2000 Geologist, Burns and McDonnell
  - Environmental Site Investigation & Assessment
  - Facility Demolition/ Oversight
  - Underground Storage Tank Compliance
  - Groundwater Monitor Well Installation, Sampling, and Monitoring
  - Chemical Stabilization of Metals and pH in Soil
  - Construction Management and Contractor Oversight
  - Asbestos and lead building Surveys
  - Asbestos/lead air monitoring and analysis

Field geologic operations are well handled by Mr. Cozart. Clients are well represented by Mr. Cozart's experience in the latest soil and groundwater investigation techniques and methods. In addition, clients benefit as they are skillfully represented in the field.