



76 Broadway  
Sacramento, California 95818

April 28, 2006

**RECEIVED**

*By loprojectop at 8:39 am, May 01, 2006*

Mr. Don Hwang  
Alameda County Health Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502

Re: **Report Transmittal**  
**SOIL AND GROUNDWATER INVESTIGATION REPORT**  
**76 Service Station# 3538**  
**411 W. MacArthur Boulevard**  
**Oakland, CA**

Dear Mr. Hwang:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please contact

Shelby S. Lathrop (Contractor)  
ConocoPhillips  
Risk Management & Remediation  
76 Broadway  
Sacramento, CA 95818  
Phone: 916-558-7609  
Fax: 916-558-7639

Sincerely,

Thomas Kosel  
Risk Management & Remediation

Attachment

# TRC

Customer-Focused Solutions

April 28, 2006

TRC Project No. 42014209

**RECEIVED**

By Ioprojectop at 8:39 am, May 01, 2006

Mr. Don Hwang  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

SITE: FORMER 76 SERVICE STATION #3538  
411 WEST MACARTHUR  
OAKLAND, CALIFORNIA

RE: SOIL AND GROUNDWATER INVESTIGATION REPORT

Dear Mr. Hwang:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC submits this Soil and Groundwater Investigation Report documenting the results the additional assessment conducted at Former 76 Station No. 3538 located at 411 West MacArthur in Oakland, California (Figure 1). This work was performed pursuant to a request from the Alameda County Health Care Services (ACHCS) in their December 15, 2005 approval letter.

Please call Keith Woodburne at (925) 688-2488 if you have any questions regarding this report.

Sincerely,  
TRC

  
Jeremy Kearns  
Staff Scientist

  
Keith Woodburne, P.G.  
Senior Project Geologist

Enclosure

cc: Shelby Lathrop, ConocoPhillips (electronic upload only)

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SOIL AND GROUNDWATER INVESTIGATION REPORT

April 28, 2006

Former 76 Service Station #3538  
411 West MacArthur  
Oakland, California

TRC Project No. 420114208

Prepared For:

ConocoPhillips Company  
57 Broadway  
Sacramento, California 94818

By:



Jeremy Kearns  
Staff Scientist



Keith Woodburne P.G.  
Senior Project Geologist



TRC  
1590 Solano Way  
Concord, California  
(925) 688-1200

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- B. Laboratory Analytical Reports and Chain of Custody Records

## **1.0 INTRODUCTION**

On behalf of ConocoPhillips, TRC submits this Soil and Groundwater Investigation Report documenting the results of additional site assessment activities at former 76 Service Station No. 3538 located at 411 West MacArthur in Oakland, California (Figure 1). This work was performed pursuant to a request by the Alameda County Health Care Services (ACHCS) in their December 15, 2005 approval letter.

## **2.0 SITE DESCRIPTION**

The subject site was a former Tosco (76) service station, and is located on the southwest corner of MacArthur Boulevard and Webster Street in Oakland, California (Figure 1). The site is currently a used car sales lot and is entirely fenced. All petroleum storage and dispensing equipment were removed in September of 1998 during station demolition activities. Six groundwater monitoring wells are present at and in the site vicinity (Figure 2).

## **2.1 GEOLOGY AND HYDROGEOLOGY**

Based on review of regional geologic maps the site is underlain by Late Pleistocene Alluvium. This Alluvium is considered to be alluvial fan deposits, and is described as consisting of weakly consolidated, slightly weathered, irregularly interbedded clay, silt, sand and gravel. The maximum thickness of these deposits is unknown, but is considered to be at least 150 feet thick.

Based on subsurface investigations performed at the site, the first 1.5 feet of the subsurface is composed of artificial fill. The fill is underlain by an unsaturated zone consisting of clay with minor amounts of sand and gravel, to a depth of approximately 18 feet below ground surface (bgs). The saturated zone, extending from approximately 18 to 30 feet bgs (limit of exploration), is composed of gravel with silt and sand, interbedded with clayey sand and clayey silt.

Monitoring and sampling of wells at the Site has been performed since September 1989. Depth to groundwater has varied from approximately 11 to 19 feet bgs. Groundwater flow direction has been predominantly towards the south and south-southeast with occasional deviations to the east-southeast and southwest. A rose diagram plot of 23 flow directions based on groundwater monitoring data from 1995 to 2005 is shown on Figure 3.

## **3.0 SITE BACKGROUND**

July 1989: One 10,000-gallon and one 12,000-gallon gasoline underground storage tanks (USTs) were removed and replaced with two new 12,000-gallon USTs. One 550-gallon waste oil UST and associated piping for all three tanks were also removed. No holes or cracks were observed in the gasoline USTs; however, holes were observed in the waste oil UST.

## **Soil and Groundwater Investigation Report**

Former 76 Service Station 3538

April 28, 2006

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Groundwater was encountered in the former UST pit at a depth of approximately 10.5 feet bgs, which prohibited the collection of soil samples below the former gasoline tanks. Confirmation soil samples from the sidewalls contained moderate maximum concentrations of total petroleum hydrocarbons as gasoline (TPH-g), and low maximum concentrations of benzene.

These sample areas were subsequently removed during over excavation. Soil samples from the base of the waste oil UST pit were non-detect for TPH-g and benzene, toluene, ethyl benzene, and xylenes (BTEX).

September 1989: Karpealian Engineering, Inc. (KEI) installed four groundwater monitoring wells at the site. The four wells were installed to depths of approximately 30 feet bgs.

November 1992: Two additional groundwater monitoring wells were installed offsite to a depth of 30 feet bgs.

September 1998: Two 12,000-gallon gasoline USTs and associated product piping and dispensers were removed from the site during station demolition activities. No holes or cracks were observed in the tanks. Confirmation soil samples contained low maximum concentrations of TPH-g and benzene, and methyl tertiary butyl ether (MTBE) was not detected.

October 2003: Site environmental consulting responsibilities were transferred to TRC.

### **4.0 SITE INVESTIGATION ACTIVITIES**

On March 27 and 28, 2006, TRC conducted additional soil and groundwater assessment at the Site. The investigation involved the advancement of three onsite soil boring (SB-3, SB-4, and SB5) and two offsite soil borings (SB-1 and SB-2) to sufficient depth to obtain representative groundwater samples (approximately 16 feet bgs). The locations of the soil borings are shown in Figure 2.

#### **4.1 PRE-FIELD ACTIVITIES**

Prior to commencing soil-boring activities, permits were acquired from the ACHCS. Underground Service Alert (USA) was notified at least two days prior to field activities to mark underground utilities at the property boundaries. In addition, a private utility locator was used to confirm the absence of buried utilities at each boring location. Prior to drilling each boring, a pilot hole was cleared with an air knife to approximately 5 feet bgs to verify the absence of buried utilities.

## Soil and Groundwater Investigation Report

Former 76 Service Station 3538

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A site and job specific health and safety plan that promotes personnel safety and preparedness during the planned field activities was prepared prior to the site investigation and a copy of the plan was available onsite during the investigation. On the morning of the day that the field activities commenced, a "tailgate" meeting was conducted with all exclusion zone workers to discuss the health and safety issues and concerns related to the specific work.

### 4.2 SOIL AND GROUNDWATER SAMPLING

On March 27 and 28, 2006, three onsite soil borings (SB-3 through SB-5) and two offsite borings (SB-1 and SB-2) were advanced to a total depth of between 20 and 24 feet bgs, at the locations shown on Figure 2. Soil sampling was completed by direct-push techniques using a truck-mounted direct-push rig. Soil samples were collected continuously to the total depth of each boring. Samples were collected for soil description in accordance with the Unified Soil Classification System (ASTM D-2487) and field hydrocarbon vapor testing using a hand-held photo-ionization detector (PID). Two soil samples were collected from each boring and held for laboratory analysis. Soil boring logs and permits (drilling and encroachment) are located in Appendix A.

Each boring was completed to a depth sufficient to obtain a representative grab groundwater sample. When groundwater was encountered, a grab sample was collected by placing a temporary 3/4 inch diameter PVC well screen into the boring. All water samples were collected using disposable bailer. Samples were transported to a state-certified laboratory under chain of custody protocol, providing a continuous record of sample possession prior to analysis.

Collected samples were analyzed for total purgeable petroleum hydrocarbons (TPPH), benzene, toluene, ethylbenzene, total xylenes (BTEX), and fuel oxygenates, including methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE) 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), and ethanol by EPA Method 8260B.

After sampling was completed, all borings were properly sealed with neat cement grout. A tremie pipe was used to place the grout from the bottom of the boring to within one foot of surface grade in one continuous pour. The boring was then completed to grade level with concrete, dyed to match the surrounding area.

### 4.3 LABORATORY ANALYTICAL RESULTS

Analytical results of the soil and grab groundwater samples are presented in Table 1 and Table 2 respectively. Copies of the laboratory analytical reports and chains of custody are provided in Appendix B.

## Soil and Groundwater Investigation Report

Former 76 Service Station 3538

April 28, 2006

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### Soil Results

Significant soil impacts were only identified in one onsite soil boring (SB-3) collected at a depth of 16 feet bgs. TPPH, toluene, ethylbenzene, and total xylenes were detected in sample SB-3 @16 at concentrations of 6,100 milligrams per kilogram (mg/kg), 53, mg/kg, 86, mg/kg, and 420 mg/kg, respectively. Minor concentrations of TPPH, BTEX, MTBE, and TBA were detected in the soil sample SB-3@14' and a minor concentration of TPPH were detected in the soil sample SB-1@9'. No target analytes were detected in any soil samples from the remaining borings at or above the laboratory reporting limits. Soil analytical results are presented in Table 1.

### Groundwater Results

TPPH, benzene, and MTBE were detected at significant concentrations in grab groundwater samples from offsite boring SB-1W and onsite borings SB-3W and SB-5W. TPPH, benzene, and MTBE were detected at maximum concentrations of 13,000 micrograms per liter ( $\mu\text{g/l}$ ), 510  $\mu\text{g/l}$ , and 340  $\mu\text{g/l}$  in onsite boring SB-3W. TPPH, benzene, and MTBE were detected in offsite boring SB-1W at concentrations of 120  $\mu\text{g/l}$ , 11  $\mu\text{g/l}$ , and 30  $\mu\text{g/l}$ , respectively. Grab groundwater analytical results are presented in Table 2.

## 4.4 WASTE DISPOSAL

Soil cuttings and purge water generated during site assessment activities were temporally stored onsite in Department of Transportation (DOT)-approved 55-gallon drums pending disposal to an approved disposal/recycling facility.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this investigation was to define the distribution of petroleum hydrocarbons and fuel oxygenates, including MTBE in site soils and groundwater, and to assess the offsite extent of dissolved-phase groundwater impacts downgradient of monitoring wells MW-2 and MW-3. The presence of TPPH, benzene, and MTBE in the grab groundwater sample from offsite boring SB-1, and absence of detections in offsite boring SB-2 indicate that the dissolved-phase plume has migrated a short distance offsite to the south-southeast.

TRC recommends installation of two offsite monitoring well along the east and west side of Webster Street in the vicinity and slightly downgradient of boring SB-1 to monitor the current dissolved-phase plume and to provide a monitoring point for evaluating plume stability.

TRC will prepare a Site Conceptual Model (SCM), per Alameda County guidance for electronic report submittal, to summarize site conditions and evaluate path forward. TRC will include a work plan for the offsite well installation as an attachment to the electronic SCM.

## **Soil and Groundwater Investigation Report**

Former 76 Service Station 3538

April 28, 2006

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Based on information presented in the SCM, and on subsequent groundwater monitoring data from the proposed offsite wells, TRC may recommend site closure after several quarters of monitoring if the plume appears stable and remains defined within the monitoring well network.

## FIGURES



1 MILE    3/4    1/2    1/4    0    1 MILE



SCALE 1 : 24,000



SOURCE:

United States Geological Survey  
7.5 Minute Topographic Maps:  
Oakland East and Oakland West  
Quadrangles, California

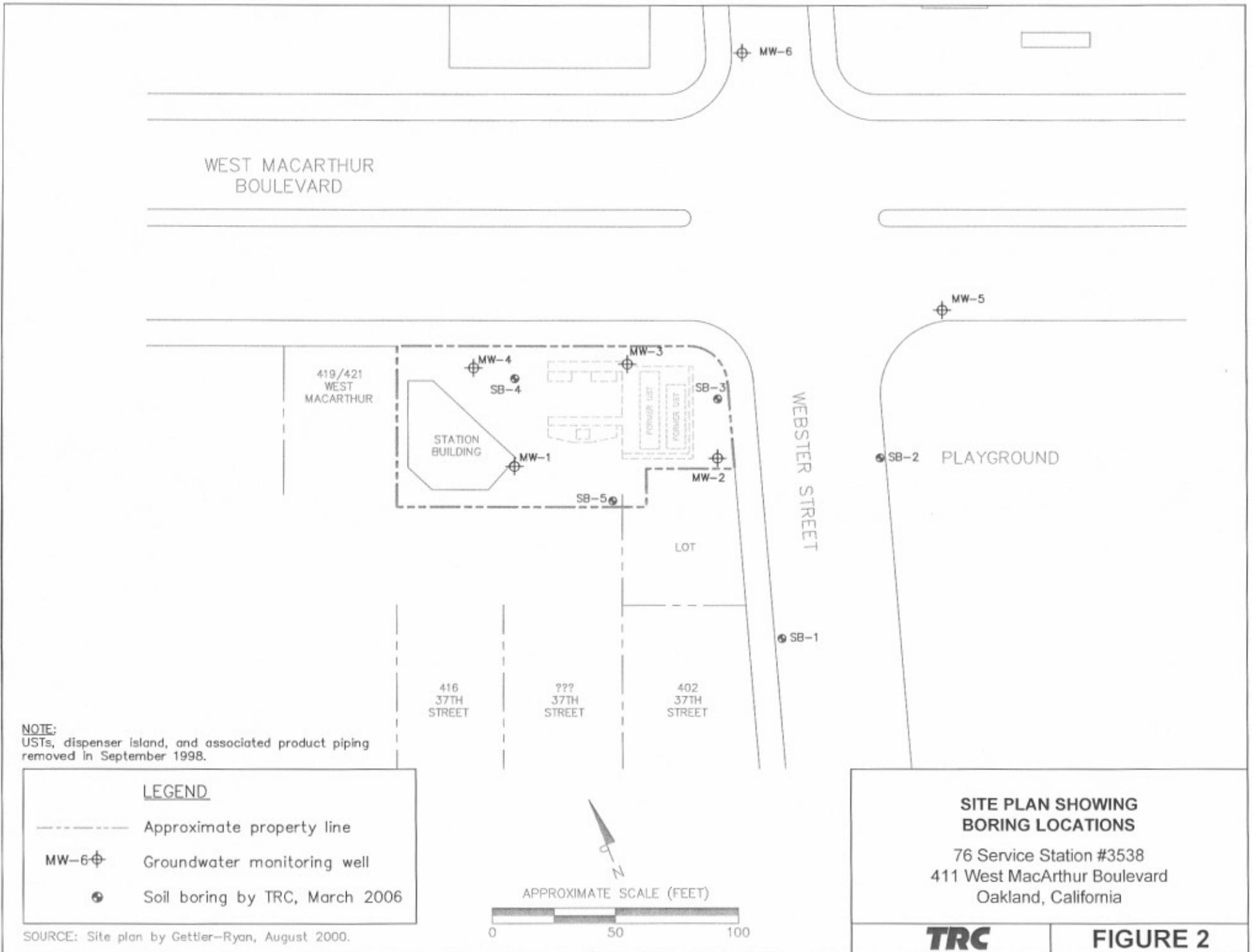


**VICINITY MAP**

76 Service Station #3538  
411 West MacArthur Boulevard  
Oakland, California

**TRC**

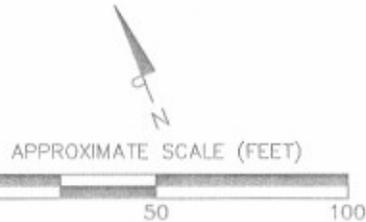
**FIGURE 1**



**NOTE:**  
 USTs, dispenser island, and associated product piping removed in September 1998.

**LEGEND**

- Approximate property line
- MW-6 ⊕ Groundwater monitoring well
- Soil boring by TRC, March 2006



**SITE PLAN SHOWING BORING LOCATIONS**

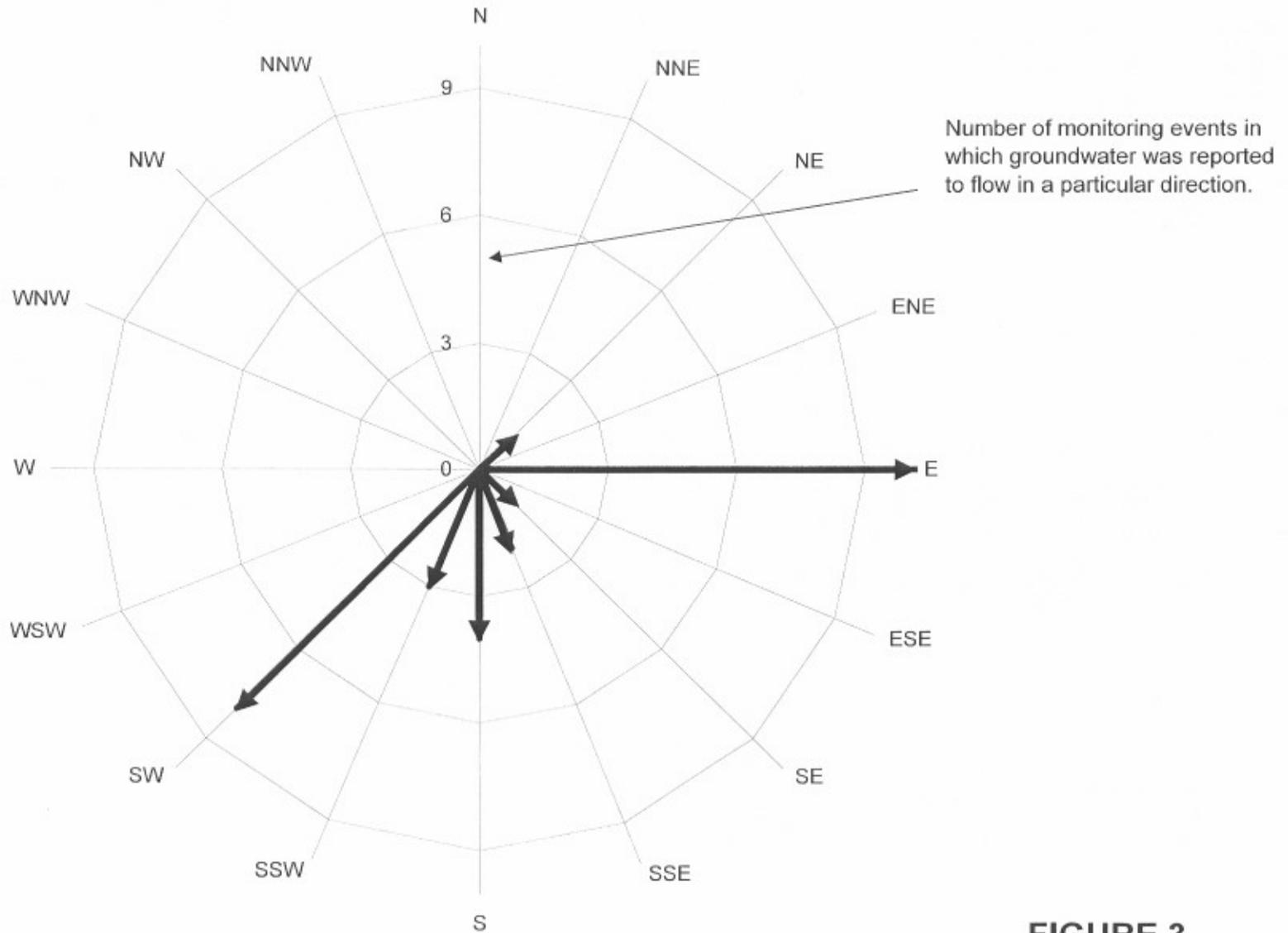
76 Service Station #3538  
 411 West MacArthur Boulevard  
 Oakland, California

SOURCE: Site plan by Gettler-Ryan, August 2000.

**TRC**

**FIGURE 2**

**Historical Groundwater Flow Directions  
for Tosco (76) Service Station No. 3538  
February 1990 through March 2006**



## TABLES

Table 1

**RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES**  
**Former 76 Service Station 3538**  
**411 West MacArthur**  
**Oakland, California**

Sample Number	Sample Date	Depth (fbg)	TPH-g (mg/kg)	Benzene (mg/kg)	Tolulene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2 DCA (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
SB - 1 @ 5'	3/27/2006	5.0	<0.97	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	---
SB - 1 @ 9'	3/27/2006	9.0	<b>2.8</b>	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	---
SB - 2 @ 5'	3/27/2006	5.0	<0.97	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	---
SB - 2 @ 9'	3/27/2006	9.0	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	---
SB - 3 @ 14'	3/27/2006	14.0	<b>1.3</b>	<b>0.11</b>	<0.0046	<b>0.061</b>	<b>0.055</b>	<b>0.64</b>	<b>0.19</b>	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	---
SB - 3 @ 16'	3/27/2006	16.0	<b>6,100</b>	<9.7	<b>53</b>	<b>86</b>	<b>420</b>	<9.7	<19	<9.7	<9.7	<9.7	<9.7	<9.7	<190	---
SB - 4 @ 5'	3/28/2006	5.0	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	---
SB - 4 @ 15'	3/28/2006	15.0	<0.92	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	---
SB - 5 @ 9'	3/28/2006	9.0	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	---
SB - 5 @ 13'	3/28/2006	13.0	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0046	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	---
Composite	3/28/2006	na	<0.95	<0.0047	<b>0.013</b>	<b>0.0051</b>	<b>0.023</b>	<b>0.037</b>	<b>0.073</b>	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	<b>15</b>

**Notes:**

TPPH = total purgeable petroleum hydrocarbons  
TBA = tertiary butyl alcohol  
MTBE = methyl tertiary butyl ether  
DIPE = di-isopropyl ether  
ETBE = ethyl tertiary butyl ether  
na = not applicable

TAME = tertiary amyl methyl ether  
1,2-DCA = 1,2-dichloroethane  
EDB = ethylene dibromide  
fbg = feet below grade  
mg/kg = milligrams per kilogram  
--- = not analyzed

Table 2

**RESULTS OF LABORATORY ANALYSIS OF GRAB GROUNDWATER SAMPLES**  
**Former 76 Service Station 3538**  
**411 West MacArthur**  
**Oakland, California**

Sample Number	Sample Date	TPPH (µg/kg)	Benzene (µg/kg)	Ethyl- benzene (µg/kg)	Toluene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	TBA (µg/kg)	TAME (µg/kg)	DIPE (µg/kg)	ETBE (µg/kg)	EDB (µg/kg)	1,2 DCA (µg/kg)	Ethanol (µg/kg)
EPA 8260B														
SB - 1W	3/27/2006	120	11	<0.50	<0.50	<1.0	130	28	<0.50	<1.0	<0.50	<0.50	<0.50	<100
SB - 2W	3/27/2006	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<100
SB - 3W	3/27/2006	13,000	510	470	1,400	2,600	340	57	<5.0	<10	<5.0	<5.0	<5.0	<100
SB - 4W	3/28/2006	<50	<0.50	<0.50	<0.50	<1.0	3.4	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<100
SB - 5W	3/28/2006	3,000	44	63	1.2	30	53	17	<0.50	<1.0	<0.50	<0.50	<0.50	<100
<b>Notes:</b>														
	TPPH	=	total purgeable petroleum hydrocarbons		1,2-DCA	=	1,2-dichloroethane							
	TBA	=	tertiary butyl alcohol		EDB	=	ethylene dibromide							
	MTBE	=	methyl tertiary butyl ether		ft MSL	=	feet above mean sea level							
	DIPE	=	di-isopropyl ether		ft boc	=	feet below top of casing							
	ETBE	=	ethyl tertiary butyl ether		µg/L	=	micrograms per liter							
	TAME	=	tertiary amyl methyl ether		-	=	not analyzed							

**APPENDIX A**  
**SOIL BORING LOGS AND PERMITS**

PROJECT NO.: 42-0142-09  
 LOCATION: 76 Station #3538  
 411 W. MacArthur Blvd.  
 Oakland, California

DATE DRILLED: 3/27/06  
 LOGGED BY: J. Kearns  
 APPROVED BY: K. Woodburne, RG  
 DRILLING CO.: Woodward Drilling

NORTHING: NOT SURVEYED  
 EASTING: NOT SURVEYED  
 ELEVATION: NOT SURVEYED

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 2-inch Direct Push SAMPLER TYPE: 4-foot Continuous Core TOTAL DEPTH: 20.00 feet DEPTH TO WATER: 16.25 feet	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					DESCRIPTION			
				0	Asphalt concrete.	Asphalt		
				5	CLAY (CL): Dark brown (10YR 3/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, dry. - @ 6': color change to black (2.5/2.5/1), moist.	CL		
4.0	3.0/3.0			9	- @ 9': color change to dark gray (5Y 4/1), 95% fines, 5% fine-grained sand.			
12.0	4.0/4.0			10	- @ 10': color change to olive gray (5Y 5/2).			
				12	SAND (SW): Olive (5Y 4/3), 10% fines, 90% fine- to coarse-grained sand, loose, moist.	SW		
0.2	2.0/4.0			14	CLAY (CL): Light olive brown (2.5Y 5/6), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist.	CL		
				16	SAND (SW): Dark grayish brown (2.5Y 4/2), 10% fines, 90% fine- to coarse-grained sand, loose, wet.	SW		
1.1	4.0/4.0			20				
				25				
				30				
				35				
				40				



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0142-09  
 LOCATION: 76 Station #3538  
 411 W. MacArthur Blvd.  
 Oakland, California

DATE DRILLED: 3/27/06  
 LOGGED BY: J. Kearns  
 APPROVED BY: K. Woodburne, RG  
 DRILLING CO.: Woodward Drilling

NORTHING: NOT SURVEYED  
 EASTING: NOT SURVEYED  
 ELEVATION: NOT SURVEYED

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 2-inch Direct Push	USCS	LITHOLOGY	BORING BACKFILL DETAIL	
					SAMPLER TYPE: 4-foot Continuous Core				TOTAL DEPTH: 24.00 feet
					DESCRIPTION				
				0				0	
				5	CLAYEY SAND (SC): Brown (10YR 4/3), 20% fines, 80% fine- to coarse-grained sand, loose, moist.	SC		<p>Grout</p>	
1.8	3.0/3.0			5	CLAY (CL): Light olive brown (2.5Y 5/6), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist.				
0.2	4.0/4.0			10	- @ 9': color change to mottled light yellowish brown (2.5Y 6/3) and very dark gray (10YR 3/1).				
0.0	4.0/4.0			11	- @ 11': color change to mottled brown (10YR 3/3) and very dark grayish brown (10YR 3/2).	CL			
				15					
	2.0/2.0			16.25	CLAYEY SAND (SC): Yellowish brown (10YR 5/8), 30% fines, 72% fine- to coarse-grained sand, loose, dry.	SC			
	2.0/2.0			20	CLAY (CL): Yellowish brown (10YR 5/4), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, wet.	CL			
0.0	4.0/4.0			20	SAND (SC): 10% fines, 90% fine- to coarse-grained sand, loose.	SC			
				25					
				30					
				35					
				40					



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0142-09	DATE DRILLED: 3/27/06	NORTHING: NOT SURVEYED
LOCATION: 76 Station #3538	LOGGED BY: J. Kearns	EASTING: NOT SURVEYED
411 W. MacArthur Blvd.	APPROVED BY: K. Woodburne, RG	ELEVATION: NOT SURVEYED
Oakland, California	DRILLING CO.: Woodward Drilling	

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: 2-inch Direct Push SAMPLER TYPE: 4-foot Continuous Core TOTAL DEPTH: 24.00 feet DEPTH TO WATER: 16.69 feet		USCS	LITHOLOGY	BORING BACKFILL DETAIL
				DESCRIPTION				
13.3	3.0/3.0		0					
6.9	4.0/4.0		5	CLAYEY SAND (SC): Brown (10YR 3/3), 10% fines, 90% fine- to coarse-grained sand, loose, dry.	SC			
			10	CLAY (CL): Dark brown (10YR 3/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist.  - @ 9': color change to mottled light yellowish brown (10YR 4/4) and dark yellowish brown (10YR 4/6), high plasticity.  - @ 11': low plasticity.	CL			
105	2.5/4.0		15	- @ 14': hydrocarbon odor.				
1596	3.0/4.0		20	- @ 19': color change to mottled dusky red (10YR 3/2) and dark brown, hydrocarbon odor.				
0.0	4.0/4.0		20	CLAYEY SAND (SC): Mottled dark greenish gray (GLEY1 6/1) and yellowish brown (10YR 5/6).	SC			
			25					
			30					
			35					
			40					



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0142-09  
 LOCATION: 76 Station #3538  
 411 W. MacArthur Blvd.  
 Oakland, California

DATE DRILLED: 3/28/06  
 LOGGED BY: J. Kearns  
 APPROVED BY: K. Woodburne, RG  
 DRILLING CO.: Woodward Drilling

NORTHING: NOT SURVEYED  
 EASTING: NOT SURVEYED  
 ELEVATION: NOT SURVEYED

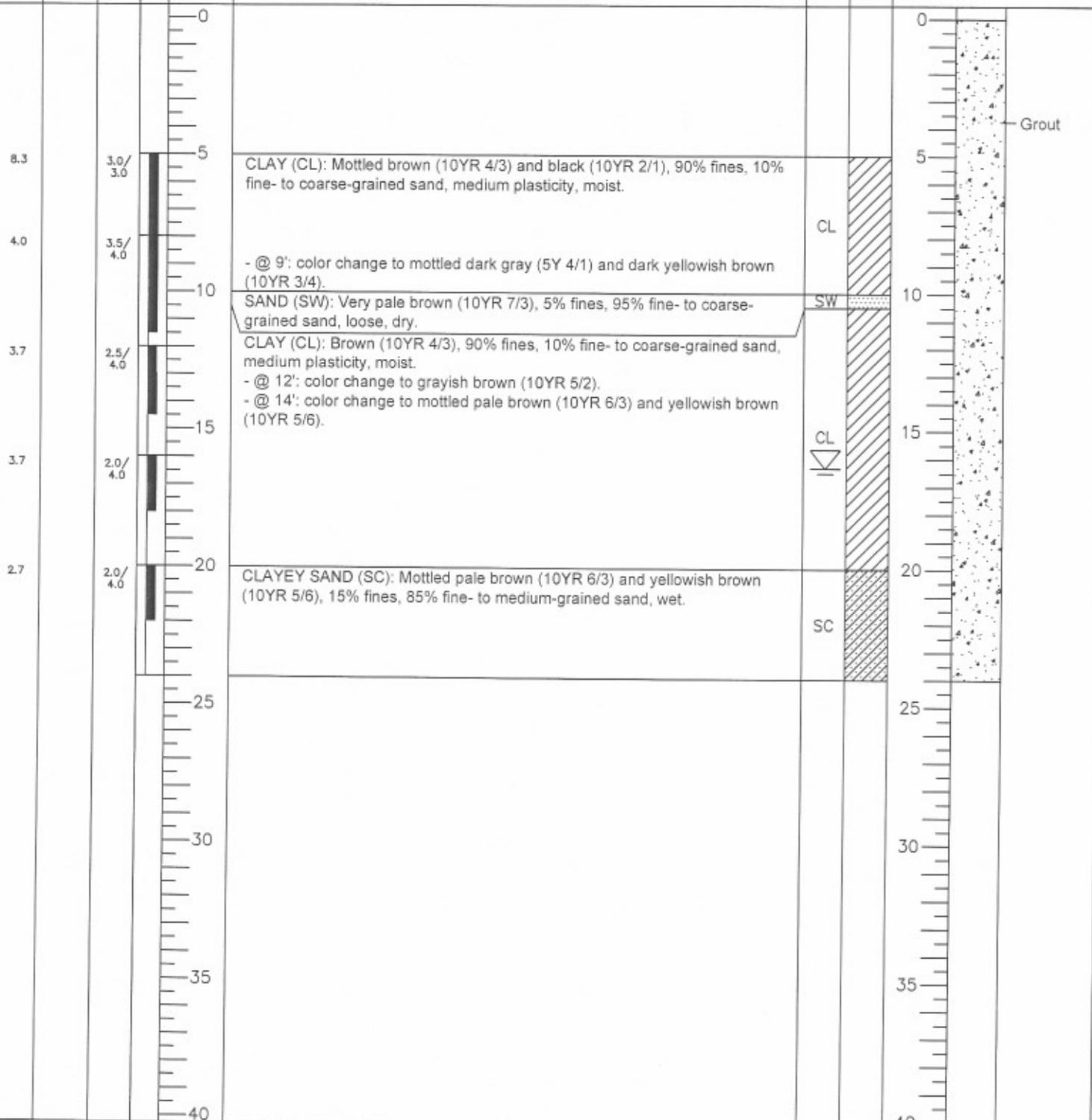
DRILLING METHOD: 2-inch Direct Push  
 SAMPLER TYPE: 4-foot Continuous Core  
 TOTAL DEPTH: 24.00 feet  
 DEPTH TO WATER: 16.39 feet

DESCRIPTION

USCS

LITHOLOGY

BORING BACKFILL DETAIL



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0142-09	DATE DRILLED: 3/28/06	NORTHING: NOT SURVEYED
LOCATION: 76 Station #3538	LOGGED BY: J. Kearns	EASTING: NOT SURVEYED
411 W. MacArthur Blvd.	APPROVED BY: K. Woodburne, RG	ELEVATION: NOT SURVEYED
Oakland, California	DRILLING CO.: Woodward Drilling	

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 2-inch Direct Push	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					SAMPLER TYPE: 4-foot Continuous Core			
DESCRIPTION								
				0				0
1.1	3.0/3.0			5	CLAY (CL): Brown (10YR 4/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, wet.	CL		5
2.4	3.0/4.0			10	- @ 9': color change to dark grayish brown (2.5Y 4/2). - @ 10': color change to dark olive gray (5Y 3/2).	CL		10
1.8	4.0/4.0			15	CLAYEY SAND (SC): Dark olive gray (5Y 3/2), 15% fines, 85% fine- to coarse-grained sand, loose, wet.	SC		15
				15	CLAY (CL): Mottled grayish brown (2.5Y 8/2) and dark yellowish brown (10YR 5/6), 90% fines, 10% fine- to medium- grained sand, wet.	CL		15
2.3	3.0/4.0			20	CLAYEY SAND (SC): Mottled grayish brown (2.5Y 8/2) and dark yellowish brown (10YR 5/6), 15% fines, 85% fine- to medium-grained sand, wet.	SC		20
				20	- @ 19': color change to greenish gray (GLE Y1 5/5GY).			20
				25				25
				30				30
				35				35
				40				40



LOG OF EXPLORATORY BORING

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 02/27/2006 By jamesy  
Permits Issued: W2006-0153

Receipt Number: WR2006-0096  
Permits Valid from 03/27/2006 to 03/28/2006

Application Id: 1140638117050

City of Project Site:Oakland

Site Location: 411 W. MacArthur Blvd. and Webster street immediatly adjacent to site.

Project Start Date: 03/27/2006

Completion Date:03/28/2006

Applicant: TRC - Rachele Dunn  
1590 Solano Way, Suite A, Concord, CA 94520

Phone: 925-688-2464

Property Owner: ConocoPhillips Corporation  
76 Broadway, Sacramento, CA 95818

Phone: --

Client: \*\* same as Property Owner \*\*

Total Due: \$200.00  
Total Amount Paid: \$200.00

Payer Name : TRC Solutions, Inc.

Paid By: CHECK

PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 5 Boreholes  
Driller: Woodward Drilling - Lic #: 710079 - Method: DP

Work Total: \$200.00

### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2006-0153	02/27/2006	06/25/2006	5	2.00 in.	30.00 ft

### Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact George Cashen for an inspection time at 510-670-6610 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

# PROGRAMS AND SERVICES

## Well Standards Program

The Alameda County Public Works Agency, Water Resources is located at:

399 Elmhurst Street

Hayward, CA 94544

For Driving Directions or General Info, Please Contact 510-670-5480 or wells@acpwa.org

For Drilling Permit information and process contact James Yoo at

Phone: 510-670-6633

FAX: 510-782-1939

Email: Jamesy@acpwa.org

Alameda County Public Works is the administering agency of General Ordinance Code, Chapter 6.88 . The purpose of this chapter is to provide for the regulation of groundwater wells and exploratory holes as required by California Water Code. The provisions of these laws are administered and enforced by Alameda County Public Works Agency through its Well Standards Program.

**Drilling Permit Jurisdictions in Alameda County:** There are four jurisdictions in Alameda County.

Location:	Agency with Jurisdiction	Contact Number
Berkeley	City of Berkeley	Ph: 510-981-7460 Fax: 510-540-5672
Fremont, Newark, Union City	Alameda County Water District	Ph: 510-668-4460 Fax: 510-651-1760
Pleasanton, Dublin, Livermore, Sunol	Zone 7 Water Agency	Ph: 925-454-5000 Fax: 510-454-5728

The Alameda County Public Works Agency, Water Resources has the responsibility and authority to issue drilling permits and to enforce the County Water Well Ordinance 73-68. This jurisdiction covers the western Alameda County area of **Oakland, Alameda, Piedmont, Emeryville, Albany, San Leandro, San Lorenzo, Castro Valley, and Hayward** . The purpose of the drilling permits are to ensure that any new well or the destruction of wells, including geotechnical investigations and environmental sampling within the above jurisdiction and within Alameda County will not cause pollution or contamination of ground water or otherwise jeopardize the health, safety or welfare of the people of Alameda County.

**Permits** are required for all work pertaining to wells and exploratory holes at any depth within the jurisdiction of the Well Standards Program. A completed permit application (30 Kb)\* , along with a site map, should be submitted at least **ten (10) working days prior to the planned start of work**. Submittals should be sent to the address or fax number provided on the application form. When submitting an application via fax, please use a high resolution scan to retain legibility.

Complete Permit Application Check List (24 Kb)\*

### Fees

**Beginning April 11, 2005** , the following fees shall apply:

A permit to construct, rehabilitate, or destroy wells, including cathodic protection wells, but excluding dewatering wells, shall cost \$300.00 per well.

A permit to bore exploratory holes, including temporary test wells, shall cost \$200 per site. A site includes the project parcel as well as any adjoining parcels.

Please make checks payable to: **Treasurer, County of Alameda**

### Permit Fees are exempt to State & Federal Projects

Applicants shall submit a letter from the agency requesting the fee exemption.

### Scheduling Work/Inspections:

Alameda County Public Works Agency (ACPWA), Water Resources Section requires scheduling and inspection of permitted work. All drilling activities must be scheduled in advance. Availability of inspections will vary from week to week and will come on a first come, first served bases. To ensure inspection availability on your desired or driller scheduled date, the following procedures are required:

Please contact **George Bolton at 510-670-5594** to schedule the inspection date and time (You must have drilling permit approved prior to scheduling).

Schedule the work as far in advance as possible (at least 5 days in advance); and confirm the scheduled drilling date(s) at least 24 hours prior to drilling.

Once the work has been scheduled, an ACPWA Inspector will coordinate the inspection requirements as well as how the Inspector can be reached if they are not at the site when inspection is required. Expect for special circumstances given, all work will require the inspection to be conducted during the working hours of 8:30am to 2:30pm., Monday to Friday, excluding holidays.

### Request for Permit Extension:

Permits are only valid from the start date to the completion date as stated on the drilling permit application and Conditions of Approval. To request an extension of a drilling permit application, applicants must request in writing prior to the completion date as set forth in the Conditions of Approval of the drilling permit application. Please send fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. There are no additional fees for permit extensions or for re-scheduling inspection dates. You may not extend your drilling permit dates beyond 90 days from the approval date of the permit application. **NO refunds** shall be given back after 90 days and the permit shall be deemed voided.

### Cancel a Drilling Permit:

Applicants may cancel a drilling permit only in writing by mail, fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. If you do not cancel your drilling permit application before the drilling completion date or notify in writing within 90 days, Alameda County Public Works Agency, Water Resources Section may void the permit and No refunds may be given back.

### Refunds/Service Charge:

A service charge of \$25.00 dollars for the first check returned and \$35.00 dollars for each subsequent check returned.

Applicants who cancel a drilling permit application **before** we issue the approved permit(s), will receive a **FULL** refund (at any amount) and will be mailed back within two weeks.

Applicants who cancel a drilling permit application **after** a permit has been issued will then be charged a service fee of \$50.00 (fifty Dollars). To collect the remaining funds will be determined by the amount of the refund to be refunded (see process below).

Board of Supervisors Minute Order, File No. 9763, dated January 9, 1996, gives blanket authority to the Auditor-Controller to process claims, from all County departments for the refund of fees which do not exceed \$500 (Five Hundred Dollars)(with the exception of the County Clerk whose limit is \$1,500).

Refunds over the amounts must be authorized by the Board of Supervisors Minute Order, File No. 9763 require specific approval by the Board of Supervisors.

The forms to request for refunds under \$500.00 (Five Hundred Dollars) are available at this office or any County Offices.

If the amount is exceeded, a Board letter and Minute Order must accompany the claim. Applicant shall fill out the request form and the County Fiscal department will process the request.

## **Enforcement**

Penalty. Any person who does any work for which a permit is required by this chapter and who fails to obtain a permit shall be guilty of a misdemeanor punishable by fine not exceeding Five Hundred Dollars (\$500.00) or by imprisonment not exceeding six months, or by both such fine and imprisonment, and such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any such violation is committed, continued, or permitted, and shall be subject to the same punishment as for the original offense. (Prior gen. code §3-160.6)

### **Enforcement actions will be determined by this office on a case-by-case basis**

Drilling without a permit shall be the cost of the permit(s) and a fine of \$500.00 (Five Hundred Dollars).

**Well Completion Reports** (State DWR-188 forms) must be filed with the Well Standards Program within 60 days of completing work. Staff will review the report, assign a state well number, and then forward it to the California Department of Water Resources (DWR). Drillers should not send completed reports to DWR directly. Failure to file a Well Completion Report or deliberate falsification of the information is a misdemeanor; it is also grounds for disciplinary action by the Contractors' State License Board. Also note that filed Well Completion Reports are considered private record protected by state law and can only be released to the well owner or those specifically authorized by government agencies. Links to pertinent forms are provided below.

Well Completion Report Form\*

Well Owner's Request Form for Previously Filed Forms (41Kb)\*

Government Authorization Form for the Release of Forms (46 Kb)\*

Site Hazard Information Form (51 Kb)\*

\* Adobe PDF Reader is Required.

Job Site 411 W MACARTHUR BL Parcel# 012 -0945-046-01 Appl# OB060249

reserve parking for soil boring

Permit Issued 03/23/06

Nbr of days: 1  
Effective: 03/27/06

Linear feet: 75  
Expiration: 03/27/06

SHORT TERM NON-METERED

	Applcmt	Phone#	Lic#	--License Classes--
Owner	YU ARTHUR & MA KEVIN			
Contractor	WOODWARD DRILLING CO., INC	X (707)374-4300	710079	C57
Arch/Engr				
Agent	TRC SOLUTIONS/R DUNN	(925)260-6722		
Applic Addr	P.O.BOX 336, RIO VISTA, CA, 94571			

\$117.62 TOTAL FEES PAID AT ISSUANCE	
\$59.00 Applic	\$43.50 Permit
\$.00 Process	\$9.74 Rec Mgmt
\$.00 Gen Plan	\$.00 Invstg
\$.00 Other	\$5.38 Tech Enh

JOB SITE

CITY OF OAKLAND

DIST: ADDRESS:

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

\*Applicant: *Rachelle* 3/23/06

Issued by: *[Signature]* 7

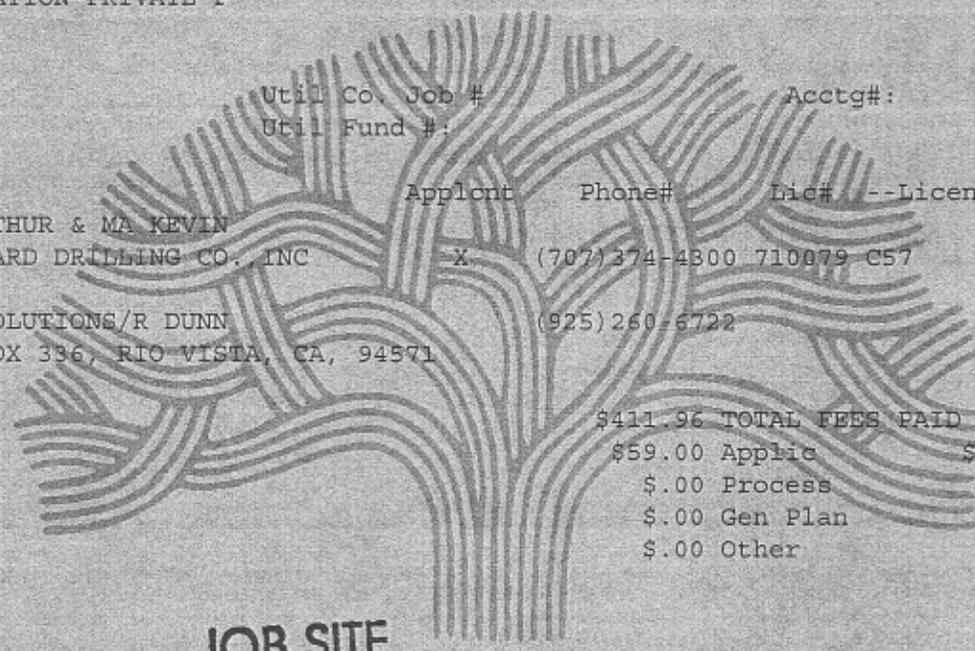
Job Site 411 W MACARTHUR BL Parcel# 012 -0945-046-01 Appl# X0600315

Descr soil boring Permit Issued 03/23/06

Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job # Acctg#:  
Util Fund #:

Owner YU ARTHUR & MA KEVIN  
Contractor WOODWARD DRILLING CO. INC -X (707) 374-4800 710079 C57  
Arch/Engr  
Agent TRC SOLUTIONS/R DUNN (925) 260-6722  
Applic Addr P.O. BOX 336, RIO VISTA, CA, 94571



\$411.96 TOTAL FEES PAID AT ISSUANCE  
\$59.00 Applic \$300.00 Permit  
\$.00 Process \$34.11 Rec Mgmt  
\$.00 Gen Plan \$.00 Invstg  
\$.00 Other \$18.85 Tech Enh

**JOB SITE**

**CITY OF OAKLAND**

DIST: ADDRESS:



# EXCAVATION PERMIT

## TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL  
ENGINEERING

PAGE 2 of 2

Permit valid for 90 days from date of issuance.

PERMIT NUMBER <b>X 0 6 0 0 3 1 5</b>		SITE ADDRESS/LOCATION <b>* 411 W. MacArthur Blvd.</b>
APPROX. START DATE <b>3/27/06</b>	APPROX. END DATE <b>3/27/06</b>	24-HOUR EMERGENCY PHONE NUMBER <b>(925) 260-6722</b> (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS <b>C-57 # 710079</b>		CITY BUSINESS TAX # <b>444677</b>

**ATTENTION:**

- 1- State law requires that the contractor/owner call Underground Service Alert (USA) two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1-800-642-2444. Underground Service Alert (USA) # 097617
- 2- 48 hours prior to starting work, you **MUST CALL** (510) 238-3651 to schedule an inspection.
- 3- 48 hours prior to re-paving, a compaction certificate is required (waived for approved slurry backfill).

**OWNER/BUILDER**

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than \$500):

- I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).
- I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).
- I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).
- I am exempt under Sec. \_\_\_\_\_, B&PC for this reason \_\_\_\_\_

**WORKER'S COMPENSATION**

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # State Fund 0020-238-2004 Company Name state Fund

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars (\$100) or less).

**NOTICE TO APPLICANT:** If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

**X** Rachelle

Signature of Permittee  Agent for  Contractor  Owner Date 3/23/06

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? <input type="checkbox"/> YES <input type="checkbox"/> NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) <input type="checkbox"/> YES <input type="checkbox"/> NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) <input type="checkbox"/> YES <input type="checkbox"/> NO
ISSUED BY		DATE ISSUED	

**APPENDIX B**

**LABORATORY ANALYTICAL REPORTS  
AND  
CHAIN OF CUSTODY RECORDS**

**ANALYTICAL REPORT**

Job Number: 720-2895-1

Job Description: Conoco Phillips #3538, Oakland

For:  
TRC Solutions  
1590 Solano Way, Suite A  
Concord, CA 94520

Attention: Mr. Keith Woodburne



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Dimple Sharma  
Project Manager I  
dsharma@stl-inc.com  
04/05/2006

Project Manager: Dimple Sharma

## METHOD SUMMARY

Client: TRC Solutions

Job Number: 720-2895-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS	STL-SF	SW846 8260B	
Purge and Trap for Solids	STL-SF		SW846 5030B
Purge-and-Trap for Aqueous Samples/High	STL-SF		SW846 5030B
Inductively Coupled Plasma - Atomic Emission Spectrometry	STL-SF	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	STL-SF		SW846 3050B
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS	STL-SF	SW846 8260B	
Purge-and-Trap	STL-SF		SW846 5030B

### LAB REFERENCES:

STL-SF = STL-San Francisco

### METHOD REFERENCES:

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: TRC Solutions

Job Number: 720-2895-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Client Matrix</u>	<u>Date/Time Sampled</u>	<u>Date/Time Received</u>
720-2895-1	SB-1@5'	Solid	03/27/2006 1008	03/29/2006 1230
720-2895-2	SB-1@9'	Solid	03/27/2006 1014	03/29/2006 1230
720-2895-3	SB-2@5'	Solid	03/27/2006 1158	03/29/2006 1230
720-2895-4	SB-2@9'	Solid	03/27/2006 1206	03/29/2006 1230
720-2895-5	SB-3@14'	Solid	03/27/2006 1505	03/29/2006 1230
720-2895-6	SB-3@16'	Solid	03/27/2006 1515	03/29/2006 1230
720-2895-7	SB-4@5'	Solid	03/28/2006 0828	03/29/2006 1230
720-2895-8	SB-4@15'	Solid	03/28/2006 0903	03/29/2006 1230
720-2895-9	SB-5@9'	Solid	03/28/2006 1046	03/29/2006 1230
720-2895-10	SB-5@13'	Solid	03/28/2006 1046	03/29/2006 1230
720-2895-11	SB-1W	Water	03/27/2006 1045	03/29/2006 1230
720-2895-12	SB-2W	Water	03/27/2006 1336	03/29/2006 1230
720-2895-13	SB-3W	Water	03/27/2006 1600	03/29/2006 1230
720-2895-14	SB-4W	Water	03/28/2006 0935	03/29/2006 1230
720-2895-15	SB-5W	Water	03/28/2006 1150	03/29/2006 1230
720-2895-20	COMP	Solid	03/28/2006 1250	03/29/2006 1230

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-1@5'

Lab Sample ID: 720-2895-1

Date Sampled: 03/27/2006 1008

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.14 g

Date Analyzed: 03/30/2006 1556

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1556

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0049
Benzene		ND		0.0049
Ethanol		ND		0.49
Ethylbenzene		ND		0.0049
MTBE		ND		0.0049
TAME		ND		0.0049
Toluene		ND		0.0049
Xylenes, Total		ND		0.0097
TBA		ND		0.0097
DIPE		ND		0.0049
EDB		ND		0.0049
Gasoline Range Organics (GRO)-C6-C12		ND		0.97
Ethyl tert-butyl ether		ND		0.0049
Surrogate		%Rec		Acceptance Limits
Toluene-d8		96		70 - 130
1,2-Dichloroethane-d4		103		60 - 140

**Analytical Data**

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-1@9'

Lab Sample ID: 720-2895-2

Date Sampled: 03/27/2006 1014

Client Matrix: Solid

Date Received: 03/29/2006 1230

**8260B Volatile Organic Compounds by GC/MS**

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.18 g

Date Analyzed: 03/30/2006 1910

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1910

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0048
Benzene		ND		0.0048
Ethanol		ND		0.48
Ethylbenzene		ND		0.0048
MTBE		ND		0.0048
TAME		ND		0.0048
Toluene		ND		0.0048
Xylenes, Total		ND		0.0097
TBA		ND		0.0097
DIPE		ND		0.0048
EDB		ND		0.0048
Gasoline Range Organics (GRO)-C6-C12		2.8		0.97
Ethyl tert-butyl ether		ND		0.0048
Surrogate		%Rec		Acceptance Limits
Toluene-d8		97		70 - 130
1,2-Dichloroethane-d4		113		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-2@5'

Lab Sample ID: 720-2895-3

Date Sampled: 03/27/2006 1158

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 720-7157	Instrument ID: Varian 3900E
Preparation:	5030B		Lab File ID: c:\varianws\data\200603\03
Dilution:	1.0		Initial Weight/Volume: 5.13 g
Date Analyzed:	03/30/2006 1618		Final Weight/Volume: 10 mL
Date Prepared:	03/30/2006 1618		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0049
Benzene		ND		0.0049
Ethanol		ND		0.49
Ethylbenzene		ND		0.0049
MTBE		ND		0.0049
TAME		ND		0.0049
Toluene		ND		0.0049
Xylenes, Total		ND		0.0097
TBA		ND		0.0097
DIPE		ND		0.0049
EDB		ND		0.0049
Gasoline Range Organics (GRO)-C6-C12		ND		0.97
Ethyl tert-butyl ether		ND		0.0049
Surrogate		%Rec		Acceptance Limits
Toluene-d8		95		70 - 130
1,2-Dichloroethane-d4		107		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-2@9'

Lab Sample ID: 720-2895-4

Date Sampled: 03/27/2006 1206

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 720-7157	Instrument ID: Varian 3900E
Preparation:	5030B		Lab File ID: c:\varianws\data\200603\03
Dilution:	1.0		Initial Weight/Volume: 5.36 g
Date Analyzed:	03/30/2006 1640		Final Weight/Volume: 10 mL
Date Prepared:	03/30/2006 1640		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0047
Benzene		ND		0.0047
Ethanol		ND		0.47
Ethylbenzene		ND		0.0047
MTBE		ND		0.0047
TAME		ND		0.0047
Toluene		ND		0.0047
Xylenes, Total		ND		0.0093
TBA		ND		0.0093
DIPE		ND		0.0047
EDB		ND		0.0047
Gasoline Range Organics (GRO)-C6-C12		ND		0.93
Ethyl tert-butyl ether		ND		0.0047
Surrogate		%Rec		Acceptance Limits
Toluene-d8		103		70 - 130
1,2-Dichloroethane-d4		103		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-3@14'

Lab Sample ID: 720-2895-5

Date Sampled: 03/27/2006 1505

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 720-7157	Instrument ID: Varian 3900E
Preparation:	5030B		Lab File ID: c:\varianws\data\200603\03
Dilution:	1.0		Initial Weight/Volume: 5.13 g
Date Analyzed:	03/30/2006 1701		Final Weight/Volume: 10 mL
Date Prepared:	03/30/2006 1701		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0049
Benzene		0.11		0.0049
Ethanol		ND		0.49
Ethylbenzene		0.061		0.0049
MTBE		0.64		0.0049
TAME		ND		0.0049
Toluene		ND		0.0049
Xylenes, Total		0.055		0.0097
TBA		0.19		0.0097
DIPE		ND		0.0049
EDB		ND		0.0049
Gasoline Range Organics (GRO)-C6-C12		1.3		0.97
Ethyl tert-butyl ether		ND		0.0049
Surrogate		%Rec		Acceptance Limits
Toluene-d8		95		70 - 130
1,2-Dichloroethane-d4		102		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-3@16'

Lab Sample ID: 720-2895-6

Date Sampled: 03/27/2006 1515

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 720-7241	Instrument ID: Varian 3900E
Preparation:	5030B-Medium	Prep Batch: 720-7251	Lab File ID: c:\varianws\data\200603\03
Dilution:	2000		Initial Weight/Volume: 5.14 g
Date Analyzed:	03/31/2006 1607		Final Weight/Volume: 10 mL
Date Prepared:	03/30/2006 1445		

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		9.7
Benzene		ND		9.7
Ethanol		ND	*	190
Ethylbenzene		86		9.7
MTBE		ND		9.7
TAME		ND		9.7
Toluene		53		9.7
Xylenes, Total		420		19
TBA		ND		19
DIPE		ND		9.7
EDB		ND		9.7
Gasoline Range Organics (GRO)-C6-C12		6100		490
Ethyl tert-butyl ether		ND		9.7
Surrogate		%Rec		Acceptance Limits
Toluene-d8		103		50 - 130
1,2-Dichloroethane-d4		88		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-4@5'

Lab Sample ID: 720-2895-7

Date Sampled: 03/28/2006 0828

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.37 g

Date Analyzed: 03/30/2006 1722

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1722

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0047
Benzene		ND		0.0047
Ethanol		ND		0.47
Ethylbenzene		ND		0.0047
MTBE		ND		0.0047
TAME		ND		0.0047
Toluene		ND		0.0047
Xylenes, Total		ND		0.0093
TBA		ND		0.0093
DIPE		ND		0.0047
EDB		ND		0.0047
Gasoline Range Organics (GRO)-C6-C12		ND		0.93
Ethyl tert-butyl ether		ND		0.0047
Surrogate		%Rec		Acceptance Limits
Toluene-d8		85		70 - 130
1,2-Dichloroethane-d4		102		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-4@15'

Lab Sample ID: 720-2895-8

Date Sampled: 03/28/2006 0903

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.43 g

Date Analyzed: 03/30/2006 1744

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1744

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0046
Benzene		ND		0.0046
Ethanol		ND		0.46
Ethylbenzene		ND		0.0046
MTBE		ND		0.0046
TAME		ND		0.0046
Toluene		ND		0.0046
Xylenes, Total		ND		0.0092
TBA		ND		0.0092
DIPE		ND		0.0046
EDB		ND		0.0046
Gasoline Range Organics (GRO)-C6-C12		ND		0.92
Ethyl tert-butyl ether		ND		0.0046
<b>Surrogate</b>		<b>%Rec</b>		<b>Acceptance Limits</b>
Toluene-d8		104		70 - 130
1,2-Dichloroethane-d4		102		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

Client Sample ID: SB-5@9'

Lab Sample ID: 720-2895-9

Date Sampled: 03/28/2006 1046

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.38 g

Date Analyzed: 03/30/2006 1805

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1805

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0046
Benzene		ND		0.0046
Ethanol		ND		0.46
Ethylbenzene		ND		0.0046
MTBE		ND		0.0046
TAME		ND		0.0046
Toluene		ND		0.0046
Xylenes, Total		ND		0.0093
TBA		ND		0.0093
DIPE		ND		0.0046
EDB		ND		0.0046
Gasoline Range Organics (GRO)-C6-C12		ND		0.93
Ethyl tert-butyl ether		ND		0.0046
Surrogate		%Rec		Acceptance Limits
Toluene-d8		100		70 - 130
1,2-Dichloroethane-d4		103		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID:** SB-5@13'

Lab Sample ID: 720-2895-10

Date Sampled: 03/28/2006 1046

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.35 g

Date Analyzed: 03/30/2006 1827

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1827

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0047
Benzene		ND		0.0047
Ethanol		ND		0.47
Ethylbenzene		ND		0.0047
MTBE		ND		0.0047
TAME		ND		0.0047
Toluene		ND		0.0047
Xylenes, Total		ND		0.0093
TBA		ND		0.0093
DIPE		ND		0.0047
EDB		ND		0.0047
Gasoline Range Organics (GRO)-C6-C12		ND		0.93
Ethyl tert-butyl ether		ND		0.0047
Surrogate		%Rec		Acceptance Limits
Toluene-d8		91		70 - 130
1,2-Dichloroethane-d4		104		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID: SB-1W**

Lab Sample ID: 720-2895-11

Date Sampled: 03/27/2006 1045

Client Matrix: Water

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7192

Instrument ID: Varian 3900A

Preparation: 5030B

Lab File ID: c:\saturnws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 10 mL

Date Analyzed: 03/30/2006 2058

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 2058

Analyte	Result (ug/L)	Qualifier	RL
1,2-Dichloroethane	ND		0.50
Benzene	11		0.50
Ethanol	ND		100
Ethylbenzene	ND		0.50
MTBE	130		0.50
TAME	ND	*	0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	28		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	120		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8	100		77 - 121
1,2-Dichloroethane-d4	122		73 - 130

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID: SB-2W**

Lab Sample ID: 720-2895-12

Date Sampled: 03/27/2006 1336

Client Matrix: Water

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7192

Instrument ID: Varian 3900A

Preparation: 5030B

Lab File ID: c:\satumws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 10 mL

Date Analyzed: 03/30/2006 2121

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 2121

Analyte	Result (ug/L)	Qualifier	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND		100
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND	*	0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8	102		77 - 121
1,2-Dichloroethane-d4	123		73 - 130

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

Client Sample ID: SB-3W

Lab Sample ID: 720-2895-13

Date Sampled: 03/27/2006 1600

Client Matrix: Water

Date Received: 03/29/2006 1230

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### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7192

Instrument ID: Varian 3900A

Preparation: 5030B

Lab File ID: c:\saturmws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 10 mL

Date Analyzed: 03/30/2006 2227

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 2227

Analyte	Result (ug/L)	Qualifier	RL
Ethanol	ND		100
Surrogate	%Rec		Acceptance Limits
Toluene-d8	100		77 - 121
1,2-Dichloroethane-d4	126		73 - 130

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

Client Sample ID: SB-3W

Lab Sample ID: 720-2895-13

Date Sampled: 03/27/2006 1600

Client Matrix: Water

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7235

Instrument ID: Varian 3900C

Preparation: 5030B

Lab File ID: c:\saturnws\data\200603\03

Dilution: 10

Initial Weight/Volume: 10 mL

Date Analyzed: 03/31/2006 1935

Final Weight/Volume: 10 mL

Date Prepared: 03/31/2006 1935

Analyte	Result (ug/L)	Qualifier	RL
1,2-Dichloroethane	ND		5.0
Benzene	510		5.0
Ethylbenzene	470		5.0
MTBE	340		5.0
TAME	ND		5.0
Toluene	1400		5.0
Xylenes, Total	2600		10
TBA	57		50
DIPE	ND		10
EDB	ND		5.0
Gasoline Range Organics (GRO)-C6-C12	13000		500
Ethyl tert-butyl ether	ND		5.0
Surrogate	%Rec		Acceptance Limits
Toluene-d8	99		77 - 121
1,2-Dichloroethane-d4	102		73 - 130

# Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

Client Sample ID: SB-4W

Lab Sample ID: 720-2895-14

Date Sampled: 03/28/2006 0935

Client Matrix: Water

Date Received: 03/29/2006 1230

## 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7235

Instrument ID: Varian 3900C

Preparation: 5030B

Lab File ID: c:\saturmws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 10 mL

Date Analyzed: 03/31/2006 1748

Final Weight/Volume: 10 mL

Date Prepared: 03/31/2006 1748

Analyte	Result (ug/L)	Qualifier	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND	*	100
Ethylbenzene	ND		0.50
MTBE	3.4		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8	99		77 - 121
1,2-Dichloroethane-d4	110		73 - 130

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID: SB-5W**

Lab Sample ID: 720-2895-15

Date Sampled: 03/28/2006 1150

Client Matrix: Water

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7235

Instrument ID: Varian 3900C

Preparation: 5030B

Lab File ID: c:\saturnws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 10 mL

Date Analyzed: 03/31/2006 1815

Final Weight/Volume: 10 mL

Date Prepared: 03/31/2006 1815

Analyte	Result (ug/L)	Qualifier	RL
1,2-Dichloroethane	ND		0.50
Benzene	44		0.50
Ethanol	ND	*	100
Ethylbenzene	63		0.50
MTBE	53		0.50
TAME	ND		0.50
Toluene	1.2		0.50
Xylenes, Total	30		1.0
TBA	17		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	3000		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	%Rec		Acceptance Limits
Toluene-d8	98		77 - 121
1,2-Dichloroethane-d4	112		73 - 130

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

**Client Sample ID: COMP**

Lab Sample ID: 720-2895-20

Date Sampled: 03/28/2006 1250

Client Matrix: Solid

Date Received: 03/29/2006 1230

### 8260B Volatile Organic Compounds by GC/MS

Method: 8260B

Analysis Batch: 720-7157

Instrument ID: Varian 3900E

Preparation: 5030B

Lab File ID: c:\varianws\data\200603\03

Dilution: 1.0

Initial Weight/Volume: 5.28 g

Date Analyzed: 03/30/2006 1848

Final Weight/Volume: 10 mL

Date Prepared: 03/30/2006 1848

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
1,2-Dichloroethane		ND		0.0047
Benzene		ND		0.0047
Ethanol		ND		0.47
Ethylbenzene		0.0051		0.0047
MTBE		0.037		0.0047
TAME		ND		0.0047
Toluene		0.013		0.0047
Xylenes, Total		0.023		0.0095
TBA		0.073		0.0095
DIPE		ND		0.0047
EDB		ND		0.0047
Gasoline Range Organics (GRO)-C6-C12		ND		0.95
Ethyl tert-butyl ether		ND		0.0047
<b>Surrogate</b>		<b>%Rec</b>		<b>Acceptance Limits</b>
Toluene-d8		95		70 - 130
1,2-Dichloroethane-d4		107		60 - 140

## Analytical Data

Client: TRC Solutions

Job Number: 720-2895-1

Client Sample ID: COMP

Lab Sample ID: 720-2895-20

Date Sampled: 03/28/2006 1250

Client Matrix: Solid

Date Received: 03/29/2006 1230

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### 6010B Inductively Coupled Plasma - Atomic Emission Spectrometry

Method: 6010B

Analysis Batch: 720-7187

Instrument ID: Varian ICP

Preparation: 3050B

Prep Batch: 720-7172

Lab File ID: N/A

Dilution: 1.0

Initial Weight/Volume: 1.01 g

Date Analyzed: 03/31/2006 1414

Final Weight/Volume: 50 mL

Date Prepared: 03/31/2006 0635

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Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		15		0.99

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## DATA REPORTING QUALIFIERS

Client: TRC Solutions

Job Number: 720-2895-1

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
GC/MS VOA	*	LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>				
<b>Analysis Batch:720-7157</b>				
LCS 720-7157/5	Lab Control Spike	Solid	8260B	
LCSD 720-7157/4	Lab Control Spike Duplicate	Solid	8260B	
MB 720-7157/6	Method Blank	Solid	8260B	
720-2642-A-14 MS	Matrix Spike	Solid	8260B	
720-2642-A-14 MSD	Matrix Spike Duplicate	Solid	8260B	
720-2895-1	SB-1@5'	Solid	8260B	
720-2895-2	SB-1@9'	Solid	8260B	
720-2895-3	SB-2@5'	Solid	8260B	
720-2895-4	SB-2@9'	Solid	8260B	
720-2895-5	SB-3@14'	Solid	8260B	
720-2895-7	SB-4@5'	Solid	8260B	
720-2895-8	SB-4@15'	Solid	8260B	
720-2895-9	SB-5@9'	Solid	8260B	
720-2895-10	SB-5@13'	Solid	8260B	
720-2895-20	COMP	Solid	8260B	
<b>Analysis Batch:720-7192</b>				
LCS 720-7192/7	Lab Control Spike	Water	8260B	
LCSD 720-7192/6	Lab Control Spike Duplicate	Water	8260B	
MB 720-7192/8	Method Blank	Water	8260B	
720-2895-11	SB-1W	Water	8260B	
720-2895-12	SB-2W	Water	8260B	
720-2895-12MS	Matrix Spike	Water	8260B	
720-2895-12MSD	Matrix Spike Duplicate	Water	8260B	
720-2895-13	SB-3W	Water	8260B	
<b>Analysis Batch:720-7235</b>				
LCS 720-7235/19	Lab Control Spike	Water	8260B	
LCSD 720-7235/18	Lab Control Spike Duplicate	Water	8260B	
MB 720-7235/20	Method Blank	Water	8260B	
720-2895-13	SB-3W	Water	8260B	
720-2895-14	SB-4W	Water	8260B	
720-2895-15	SB-5W	Water	8260B	
720-2903-A-1 MS	Matrix Spike	Water	8260B	
720-2903-A-1 MSD	Matrix Spike Duplicate	Water	8260B	
<b>Prep Batch: 720-7251</b>				
LCS 720-7251/2-A	Lab Control Spike	Solid	5030B	
LCSD 720-7251/3-A	Lab Control Spike Duplicate	Solid	5030B	
MB 720-7251/1-A	Method Blank	Solid	5030B	
720-2895-6	SB-3@16'	Solid	5030B	

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>				
<b>Analysis Batch:720-7313</b>				
LCS 720-7313/15	Lab Control Spike	Solid	8260B	
LCSD 720-7313/14	Lab Control Spike Duplicate	Solid	8260B	
MB 720-7313/16	Method Blank	Solid	8260B	
720-2917-A-22 MS	Matrix Spike	Solid	8260B	
720-2917-A-22 MSD	Matrix Spike Duplicate	Solid	8260B	
<b>Analysis Batch:720-7241</b>				
LCS 720-7251/2-A	Lab Control Spike	Solid	8260B	720-7251
LCSD 720-7251/3-A	Lab Control Spike Duplicate	Solid	8260B	720-7251
MB 720-7251/1-A	Method Blank	Solid	8260B	720-7251
720-2895-6	SB-3@16'	Solid	8260B	720-7251
<b>Metals</b>				
<b>Prep Batch: 720-7172</b>				
LCS 720-7172/2-A	Lab Control Spike	Solid	3050B	
LCSD 720-7172/3-A	Lab Control Spike Duplicate	Solid	3050B	
MB 720-7172/1-A	Method Blank	Solid	3050B	
720-2874-A-1-B MS	Matrix Spike	Solid	3050B	
720-2874-A-1-C MSD	Matrix Spike Duplicate	Solid	3050B	
720-2895-20	COMP	Solid	3050B	
<b>Analysis Batch:720-7187</b>				
LCS 720-7172/2-A	Lab Control Spike	Solid	6010B	720-7172
LCSD 720-7172/3-A	Lab Control Spike Duplicate	Solid	6010B	720-7172
MB 720-7172/1-A	Method Blank	Solid	6010B	720-7172
720-2874-A-1-B MS	Matrix Spike	Solid	6010B	720-7172
720-2874-A-1-C MSD	Matrix Spike Duplicate	Solid	6010B	720-7172
720-2895-20	COMP	Solid	6010B	720-7172

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Method Blank - Batch: 720-7157**

**Method: 8260B  
Preparation: 5030B**

Lab Sample ID: MB 720-7157/6  
 Client Matrix: Solid  
 Dilution: 1.0  
 Date Analyzed: 03/30/2006 1132  
 Date Prepared: 03/30/2006 1132

Analysis Batch: 720-7157  
 Prep Batch: N/A  
 Units: mg/Kg

Instrument ID: Varian 3900E  
 Lab File ID: c:\varianws\data\200603\03  
 Initial Weight/Volume: 5 g  
 Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		0.0050
Benzene	ND		0.0050
Ethanol	ND		0.50
Ethylbenzene	ND		0.0050
MTBE	ND		0.0050
TAME	ND		0.0050
Toluene	ND		0.0050
Xylenes, Total	ND		0.010
TBA	ND		0.010
DIPE	ND		0.0050
EDB	ND		0.0050
Gasoline Range Organics (GRO)-C6-C12	ND		1.0
Ethyl tert-butyl ether	ND		0.0050
<b>Surrogate</b>	<b>% Rec</b>	<b>Acceptance Limits</b>	
Toluene-d8	96	70 - 130	
1,2-Dichloroethane-d4	101	60 - 140	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 720-7157**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-7157/5  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1049  
Date Prepared: 03/30/2006 1049

Analysis Batch: 720-7157  
Prep Batch: N/A  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\103  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-7157/4  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1110  
Date Prepared: 03/30/2006 1110

Analysis Batch: 720-7157  
Prep Batch: N/A  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\103  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	108	97	69 - 129	11	20		
MTBE	100	89	65 - 165	11	20		
Toluene	119	102	70 - 130	15	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8	111		104		70 - 130		
1,2-Dichloroethane-d4	97		100		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-7157**

**Method: 8260B  
Preparation: 5030B**

MS Lab Sample ID: 720-2642-A-14 MS  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1227  
Date Prepared: 03/30/2006 1227

Analysis Batch: 720-7157  
Prep Batch: N/A

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\03  
Initial Weight/Volume: 5.37 g  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-2642-A-14 MSD  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1249  
Date Prepared: 03/30/2006 1249

Analysis Batch: 720-7157  
Prep Batch: N/A

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\03  
Initial Weight/Volume: 5.42 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	76	86	69 - 129	10	20		
MTBE	80	82	65 - 165	1	20		
Toluene	91	97	70 - 130	5	20		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
Toluene-d8	108		99		70 - 130		
1,2-Dichloroethane-d4	98		99		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

### Method Blank - Batch: 720-7192

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: MB 720-7192/8  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1859  
Date Prepared: 03/30/2006 1859

Analysis Batch: 720-7192  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: c:\saturday\data\200603\00  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND		100
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8	101	77 - 121	
1,2-Dichloroethane-d4	126	73 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 720-7192**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-7192/7  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1921  
Date Prepared: 03/30/2006 1921

Analysis Batch: 720-7192  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: c:\saturnws\data\200603\030  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-7192/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/30/2006 1837  
Date Prepared: 03/30/2006 1837

Analysis Batch: 720-7192  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: c:\saturnws\data\200603\030  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	91	97	69 - 129	6	25		
Ethanol	101	92	60 - 120	9	25		
Ethylbenzene	93	92	60 - 120	1	25		
MTBE	95	109	65 - 165	13	25		
TAME	105	121	60 - 120	14	25		
Toluene	98	105	70 - 130	8	25		
TBA	98	106	60 - 120	8	25		
DIPE	102	109	60 - 120	7	25		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8	100		101		77 - 121		
1,2-Dichloroethane-d4	113		119		73 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-7192**

**Method: 8260B  
Preparation: 5030B**

MS Lab Sample ID: 720-2895-12  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/30/2006 2143  
Date Prepared: 03/30/2006 2143

Analysis Batch: 720-7192  
Prep Batch: N/A

Instrument ID: Varian 3900A  
Lab File ID: c:\saturaws\data\200603\03  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-2895-12  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/30/2006 2205  
Date Prepared: 03/30/2006 2205

Analysis Batch: 720-7192  
Prep Batch: N/A

Instrument ID: Varian 3900A  
Lab File ID: c:\saturaws\data\200603\03  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	74	86	69 - 129	15	20		
Ethanol	105	98	60 - 120	8	20		
Ethylbenzene	76	85	60 - 120	12	20		
MTBE	93	99	65 - 165	7	20		
TAME	94	105	60 - 120	11	20		
Toluene	82	93	70 - 130	13	20		
TBA	73	88	60 - 120	18	20		
DIPE	98	105	60 - 120	7	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Toluene-d8	100		99	77 - 121			
1,2-Dichloroethane-d4	123		117	73 - 130			

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Method Blank - Batch: 720-7235**

**Method: 8260B  
Preparation: 5030B**

Lab Sample ID: MB 720-7235/20  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/31/2006 1152  
Date Prepared: 03/31/2006 1152

Analysis Batch: 720-7235  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900C  
Lab File ID: c:\saturnews\data\200603\00  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		0.50
Benzene	ND		0.50
Ethanol	ND		100
Ethylbenzene	ND		0.50
MTBE	ND		0.50
TAME	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
TBA	ND		5.0
DIPE	ND		1.0
EDB	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8	99	77 - 121	
1,2-Dichloroethane-d4	101	73 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 720-7235**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-7235/19  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/31/2006 1014  
Date Prepared: 03/31/2006 1014

Analysis Batch: 720-7235  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900C  
Lab File ID: c:\saturmws\data\200603\03  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-7235/18  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 03/31/2006 1041  
Date Prepared: 03/31/2006 1041

Analysis Batch: 720-7235  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900C  
Lab File ID: c:\saturmws\data\200603\03  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	90	97	69 - 129	8	25		
Ethanol	118	133	60 - 120	12	25		*
Ethylbenzene	83	82	60 - 120	2	25		
MTBE	85	93	65 - 165	9	25		
TAME	90	100	60 - 120	11	25		
Toluene	89	98	70 - 130	9	25		
TBA	95	104	60 - 120	9	25		
DIPE	86	96	60 - 120	11	25		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8	100		101		77 - 121		
1,2-Dichloroethane-d4	93		97		73 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-7235**

**Method: 8260B  
Preparation: 5030B**

MS Lab Sample ID: 720-2903-A-1 MS  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 03/31/2006 1254  
Date Prepared: 03/31/2006 1254

Analysis Batch: 720-7235  
Prep Batch: N/A

Instrument ID: Varian 3900C  
Lab File ID: c:\satumws\data\200603\03  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-2903-A-1 MSD  
Client Matrix: Water  
Dilution: 50  
Date Analyzed: 03/31/2006 1321  
Date Prepared: 03/31/2006 1321

Analysis Batch: 720-7235  
Prep Batch: N/A

Instrument ID: Varian 3900C  
Lab File ID: c:\satumws\data\200603\03  
Initial Weight/Volume: 10 mL  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	70	66	69 - 129	6	20		*
Ethanol	96	126	60 - 120	27	20		*
Ethylbenzene	72	63	60 - 120	11	20		
MTBE	70	66	65 - 165	2	20		
TAME	81	84	60 - 120	5	20		
Toluene	80	73	70 - 130	9	20		
TBA	96	112	60 - 120	9	20		
DIPE	82	81	60 - 120	0	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Toluene-d8	97		99	77 - 121			
1,2-Dichloroethane-d4	93		97	73 - 130			

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

### Method Blank - Batch: 720-7251

Method: 8260B  
Preparation: 5030B

Lab Sample ID: MB 720-7251/1-A  
Client Matrix: Solid  
Dilution: 200  
Date Analyzed: 03/31/2006 1413  
Date Prepared: 03/30/2006 1445

Analysis Batch: 720-7241  
Prep Batch: 720-7251  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\03  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		1.0
Benzene	ND		1.0
Ethanol	ND		20
Ethylbenzene	ND		1.0
MTBE	ND		1.0
TAME	ND		1.0
Toluene	ND		1.0
Xylenes, Total	ND		2.0
TBA	ND		2.0
DIPE	ND		1.0
EDB	ND		1.0
Gasoline Range Organics (GRO)-C6-C12	ND		50
Ethyl tert-butyl ether	ND		1.0
Surrogate	% Rec		Acceptance Limits
Toluene-d8	97		50 - 130
1,2-Dichloroethane-d4	115		60 - 140

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 720-7251**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-7251/2-A  
Client Matrix: Solid  
Dilution: 200  
Date Analyzed: 03/31/2006 1504  
Date Prepared: 03/30/2006 1445

Analysis Batch: 720-7241  
Prep Batch: 720-7251  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\03  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-7251/3-A  
Client Matrix: Solid  
Dilution: 200  
Date Analyzed: 03/31/2006 1525  
Date Prepared: 03/30/2006 1445

Analysis Batch: 720-7241  
Prep Batch: 720-7251  
Units: mg/Kg

Instrument ID: Varian 3900E  
Lab File ID: c:\varianws\data\200603\03  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	106	97	69 - 129	9	20		
Ethanol	214	145	60 - 150	39	20	*	*
Ethylbenzene	104	102	60 - 120	2	20		
MTBE	100	107	65 - 165	7	20		
TAME	117	113	60 - 120	3	20		
Toluene	114	111	70 - 130	3	20		
TBA	102	110	60 - 120	7	20		
DIPE	106	115	60 - 120	8	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8	118		107		50 - 130		
1,2-Dichloroethane-d4	115		111		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Method Blank - Batch: 720-7313**

**Method: 8260B**  
**Preparation: 5030B**

Lab Sample ID: MB 720-7313/16  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2006 1157  
Date Prepared: 04/01/2006 1157

Analysis Batch: 720-7313  
Prep Batch: N/A  
Units: mg/Kg

Instrument ID: Varian 3900A  
Lab File ID: c:\saturnws\data\200604\04  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,2-Dichloroethane	ND		0.0050
Benzene	ND		0.0050
Ethanol	ND		0.50
Ethylbenzene	ND		0.0050
MTBE	ND		0.0050
TAME	ND		0.0050
Toluene	ND		0.0050
Xylenes, Total	ND		0.010
TBA	ND		0.010
DIPE	ND		0.0050
EDB	ND		0.0050
Gasoline Range Organics (GRO)-C6-C12	ND		1.0
Ethyl tert-butyl ether	ND		0.0050
Surrogate	% Rec	Acceptance Limits	
Toluene-d8	100	70 - 130	
1,2-Dichloroethane-d4	117	60 - 140	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 720-7313**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-7313/15  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2006 1113  
Date Prepared: 04/01/2006 1113

Analysis Batch: 720-7313  
Prep Batch: N/A  
Units: mg/Kg

Instrument ID: Varian 3900A  
Lab File ID: c:\saturday\data\200604\040  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-7313/14  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2006 1135  
Date Prepared: 04/01/2006 1135

Analysis Batch: 720-7313  
Prep Batch: N/A  
Units: mg/Kg

Instrument ID: Varian 3900A  
Lab File ID: c:\saturday\data\200604\040  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	98	88	69 - 129	10	20		
MTBE	113	114	65 - 165	1	20		
Toluene	109	101	70 - 130	7	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8	106		101		70 - 130		
1,2-Dichloroethane-d4	116		122		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-7313**

**Method: 8260B  
Preparation: 5030B**

MS Lab Sample ID: 720-2917-A-22 MS  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2006 1848  
Date Prepared: 04/01/2006 1848

Analysis Batch: 720-7313  
Prep Batch: N/A

Instrument ID: Varian 3900A  
Lab File ID: c:\satumws\data\200604\04  
Initial Weight/Volume: 5.04 g  
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-2917-A-22 MSD  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 04/01/2006 1910  
Date Prepared: 04/01/2006 1910

Analysis Batch: 720-7313  
Prep Batch: N/A

Instrument ID: Varian 3900A  
Lab File ID: c:\satumws\data\200604\04  
Initial Weight/Volume: 5.05 g  
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzene	90	94	69 - 129	4	20		
MTBE	103	103	65 - 165	0	20		
Toluene	98	96	70 - 130	3	20		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
Toluene-d8	101		98		70 - 130		
1,2-Dichloroethane-d4	117		114		60 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Method Blank - Batch: 720-7172**

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: MB 720-7172/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/31/2006 1327  
Date Prepared: 03/31/2006 0635

Analysis Batch: 720-7187  
Prep Batch: 720-7172  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Lead	ND		1.0

**Laboratory Control/  
Laboratory Control Duplicate Recovery Report - Batch: 720-7172**

**Method: 6010B**  
**Preparation: 3050B**

LCS Lab Sample ID: LCS 720-7172/2-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/31/2006 1330  
Date Prepared: 03/31/2006 0635

Analysis Batch: 720-7187  
Prep Batch: 720-7172  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-7172/3-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 03/31/2006 1334  
Date Prepared: 03/31/2006 0635

Analysis Batch: 720-7187  
Prep Batch: 720-7172  
Units: mg/Kg

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1 g  
Final Weight/Volume: 50 mL

Analyte	<u>% Rec.</u>		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Lead	98	101	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-7172**

**Method: 6010B  
Preparation: 3050B**

MS Lab Sample ID: 720-2874-A-1-B MS      Analysis Batch: 720-7187  
Client Matrix: Solid                              Prep Batch: 720-7172  
Dilution: 10  
Date Analyzed: 03/31/2006 1355  
Date Prepared: 03/31/2006 0635

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-2874-A-1-C MSD      Analysis Batch: 720-7187  
Client Matrix: Solid                              Prep Batch: 720-7172  
Dilution: 10  
Date Analyzed: 03/31/2006 1359  
Date Prepared: 03/31/2006 0635

Instrument ID: Varian ICP  
Lab File ID: N/A  
Initial Weight/Volume: 1.01 g  
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Lead	100	76	75 - 125	11	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

STL-San Francisco

# ConocoPhillips Chain Of Custody Record

40159

1220 Quarry Lane  
Pleasanton, CA 94566  
(925) 484-1919 (925) 484-1096

**720-2895**

ConocoPhillips Site Manager:  
INVOICE REMITTANCE ADDRESS:  
CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
Santa Ana, CA. 92704

ConocoPhillips Work Order Number  
**1178TRC007**  
ConocoPhillips Cost Object  
**WNO, 1178, FOI, R.**  
DATE: 03/29/2006  
PAGE: 1 of 2

SAMPLING COMPANY: <b>TRC</b>		Valid Value ID: <b>TRCC</b>	CONOCOPHILLIPS SITE NUMBER <b>3538</b>		GLOBAL ID NO.: <b>T0600101472</b>
ADDRESS: <b>1590 Solano Way, Suite A Concord, CA 94520</b>			CONOCOPHILLIPS SITE MANAGER: <b>Shelby Lathrop</b>		
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Keith Woodburne</b>			EDF DELIVERABLE TO (RP or Designee): <b>Keith Woodburne</b>		PHONE NO.: <b>(925) 688-2488</b>
TELEPHONE: <b>(925)688-2488</b>	FAX: <b>(925)688-0388</b>	E-MAIL: <b>kwoodburne@trcsolutions.com</b>			E-MAIL: <b>kwoodburne@trcsolutions.com</b>
SAMPLER NAME(S) (Print): <b>Jeremy Kearns</b>		CONSULTANT PROJECT NUMBER: <b>42014208</b>	REQUESTED ANALYSES		

TURNAROUND TIME (CALENDAR DAYS):  
 14 DAYS  7 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS  
 5 Day turn around time

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED   
 Please CC: rdunn@trcsolutions on all pdf and edf emails.

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8260B - TPHg	8260B - BTEX	8260B - 8 oxygenates	8260B-MTBE	8260B - VOCs	8270C - Semi-VOC's	1664 - Total Oil and Grease	8015 - Hydraulic Oil	8270C - PCBs	6010 - LUFT 5 Metals	8260 - TPHP	Total Lead	TEMPERATURE ON RECEIPT C°	
		DATE	TIME																	
	SB-1 @ 5'	3/27/06	1008	Soil	1			X	X								X			
	SB-1 @ 9'	3/27/06	1014	Soil	1			X	X								X			
	SB-2 @ 5'	3/27/06	1158	Soil	1			X	X								X			
	SB-2 @ 9'	3/27/06	1206	Soil	1			X	X								X			
	SB-3 @ 14'	3/27/06	1505	Soil	1			X	X								X			
	SB-3 @ 16'	3/27/06	1515	Soil	1			X	X								X			
	SB-4 @ 5'	3/28/06	828	Soil	1			X	X								X			
	SB-4 @ 15'	3/28/06	903	Soil	1			X	X								X			
	SB-5 @ 9'	3/28/06	1046	Soil	1			X	X								X			
	SB-5 @ 13'	3/28/06	1046	Soil	1			X	X								X			

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>3/29/06</b>	Time: <b>1140</b>
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>3/29/06</b>	Time: <b>1230</b>
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

# ConocoPhillips Chain Of Custody Record

40159

STL-San Francisco

1220 Quarry Lane  
Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096 fax

ConocoPhillips Site Manager:  
INVOICE REMITTANCE ADDRESS

**720-2895**

CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
Santa Ana, CA. 92704

ConocoPhillips Work Order Number

1178TRC007

ConocoPhillips Cost Object

WIND.1178.EOL.R.

DATE: 03/29/2006

PAGE: 2 of 2

SAMPLING COMPANY: TRC		Valid Value ID: TRCC		CONOCOPHILLIPS SITE NUMBER 3538		GLOBAL ID NO.: T0600101472														
ADDRESS: 1590 Solano Way, Suite A Concord, CA 94520				411 W. MacArthur Blvd., Oakland		CONOCOPHILLIPS SITE MANAGER: Shelby Lathrop														
PROJECT CONTACT (Hardcopy or PDF Report to): Keith Woodburne				EDF DELIVERABLE TO (RP or Designee): Keith Woodburne		PHONE NO.: (925) 688-2488														
TELEPHONE: (925)688-2488		FAX: (925)688-0388		E-MAIL: kwoodburne@trcsolutions.com		E-MAIL: kwoodburne@trcsolutions.com														
SAMPLER NAME(S) (Print): Jeremy Kearns		CONSULTANT PROJECT NUMBER 42014208		REQUESTED ANALYSES																
TURNAROUND TIME (CALENDAR DAYS): <input checked="" type="checkbox"/> 14 DAYS <input type="checkbox"/> 7 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS 5 Day turn around time																				
SPECIAL INSTRUCTIONS OR NOTES: Please CC: rdunn@trcsolutions on all pdf and edf emails.				FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes																
CHECK BOX IF EDD IS NEEDED <input type="checkbox"/>																				
* Field Point name only required if different from Sample ID				TEMPERATURE ON RECEIPT C°																
LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8260B - TPHg	8260B - BTEX	8260B - 8 oxygenates	8260B-MTBE	8260B - VOCs	8270C - Semi-VOC's	1664 - Total Oil and Grease	8015 - Hydraulic Oil	8270C - PCBs	6010 - LUFT 5 Metals	8260 - TPHP	Total Lead		
		DATE	TIME																	
	SB-1W	3/27/06	1045	G.W.	3			X	X									X		3 voas w/HCl
	SB-2W	3/27/06	1336	G.W.	3			X	X									X		3 voas w/HCl
	SB-3W	3/27/06	1600	G.W.	3			X	X									X		3 voas w/HCl
	SB-4W	3/28/06	935	G.W.	3			X	X									X		3 voas w/HCl
	SB-5W	3/28/06	1150	G.W.	3			X	X									X		3 voas w/HCl
	COMP	3/28/06	1250	Soil	4			X	X									X	X	
Relinquished by: (Signature)				Received by: (Signature)				Date: 3/29/06				Time: 1146								
Relinquished by: (Signature)				Received by: (Signature)				Date: 3/29/06				Time: 1230								
Relinquished by: (Signature)				Received by: (Signature)				Date:				Time:								

## Quality Control Results

Client: TRC Solutions

Job Number: 720-2895-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-7172**

**Method: 6010B  
Preparation: 3050B**

MS Lab Sample ID: 720-2874-A-1-B MS      Analysis Batch: 720-7187  
 Client Matrix: Solid                              Prep Batch: 720-7172  
 Dilution: 10  
 Date Analyzed: 03/31/2006 1355  
 Date Prepared: 03/31/2006 0635

Instrument ID: Varian ICP  
 Lab File ID: N/A  
 Initial Weight/Volume: 1.00 g  
 Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-2874-A-1-C MSD      Analysis Batch: 720-7187  
 Client Matrix: Solid                              Prep Batch: 720-7172  
 Dilution: 10  
 Date Analyzed: 03/31/2006 1359  
 Date Prepared: 03/31/2006 0635

Instrument ID: Varian ICP  
 Lab File ID: N/A  
 Initial Weight/Volume: 1.01 g  
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Lead	100	76	75 - 125	11	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

STL-San Francisco

# ConocoPhillips Chain Of Custody Record

40159

1220 Quarry Lane  
Pleasanton, CA 94566

(925) 484-1919 (925) 484-1096

**720-2895**

ConocoPhillips Site Manager:

INVOICE REMITTANCE ADDRESS:

CONOCOPHILLIPS  
Attn: Dee Hutchinson  
3611 South Harbor, Suite 200  
Santa Ana, CA. 92704

ConocoPhillips Work Order Number

1178TRC007

ConocoPhillips Cost Object

WNO, 1178, FOI, R

DATE: 03/29/2006

PAGE: 1 of 2

SAMPLING COMPANY: <b>TRC</b>		Valid Value ID: <b>TRCC</b>	CONOCOPHILLIPS SITE NUMBER <b>3538</b>		GLOBAL ID NO. <b>T0600101472</b>
ADDRESS: <b>1590 Solano Way, Suite A Concord, CA 94520</b>			CONOCOPHILLIPS SITE MANAGER: <b>Shelby Lathrop</b>		
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Keith Woodburne</b>			EDF DELIVERABLE TO (RP or Designee): <b>Keith Woodburne</b>		PHONE NO.: <b>(925) 688-2488</b>
TELEPHONE: <b>(925)688-2488</b>	FAX: <b>(925)688-0388</b>	E-MAIL: <b>kwoodburne@trcsolutions.com</b>		E-MAIL: <b>kwoodburne@trcsolutions.com</b>	LAB USE ONLY
SAMPLER NAME(S) (Print): <b>Jeremy Kearns</b>		CONSULTANT PROJECT NUMBER <b>42014208</b>		REQUESTED ANALYSES	

TURNAROUND TIME (CALENDAR DAYS):  
 14 DAYS  7 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS  
 5 Day turn around time

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED   
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LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015m - TPHd Extractable	8260B - TPHg	8260B - BTEX	8260B - 8 oxygenates	8260B-MTBE	8260B - VOCs	8270C - Semi-VOC's	1664 - Total Oil and Grease	8015 - Hydraulic Oil	8270C - PCBs	6010 - LUFT 5 Metals	8260 - TPHP	Total Lead	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	TEMPERATURE ON RECEIPT °C
		DATE	TIME																	
	SB-1 @ 5'	3/27/06	1008	Soil	1			X	X									X		
	SB-1 @ 9'	3/27/06	1014	Soil	1			X	X									X		
	SB-2 @ 5'	3/27/06	1158	Soil	1			X	X									X		
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	SB-3 @ 16'	3/27/06	1515	Soil	1			X	X									X		
	SB-4 @ 5'	3/28/06	828	Soil	1			X	X									X		
	SB-4 @ 15'	3/28/06	903	Soil	1			X	X									X		
	SB-5 @ 9'	3/28/06	1046	Soil	1			X	X									X		
	SB-5 @ 13'	3/28/06	1046	Soil	1			X	X									X		

Retrieved by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>3/29/06</b>	Time: <b>1146</b>
Retrieved by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>3/29/06</b>	Time: <b>1230</b>
Retrieved by: (Signature)	Received by: (Signature)	Date:	Time:

STL-San Francisco

# ConocoPhillips Chain Of Custody Record

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**720-2895**

ConocoPhillips Site Manager:

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ConocoPhillips Work Order Number

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ConocoPhillips Cost Object

WNO.1178.EOL.R.

DATE: 03/29/2006

PAGE: 2 of 2

SAMPLING COMPANY: <b>TRC</b>		Valid Value ID: <b>TRCC</b>	CONOCOPHILLIPS SITE NUMBER <b>3538</b>		GLOBAL ID NO.: <b>TC600101472</b>
ADDRESS: <b>1590 Solano Way, Suite A Concord, CA 94520</b>			CONOCOPHILLIPS SITE MANAGER: <b>Shelby Lathrop</b>		
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Keith Woodburne</b>			EDF DELIVERABLE TO (RP or Designee): <b>Keith Woodburne</b>		PHONE NO.: <b>(925) 688-2488</b>
TELEPHONE: <b>(925)688-2488</b>	FAX: <b>(925)688-0388</b>	E-MAIL: <b>kwoodburne@trcsolutions.com</b>	E-MAIL: <b>kwoodburne@trcsolutions.com</b>		LAB USE ONLY
SAMPLER NAME(S) (Print): <b>Jeremy Kearns</b>		CONSULTANT PROJECT NUMBER: <b>42014208</b>		REQUESTED ANALYSES	

TURNAROUND TIME (CALENDAR DAYS):  
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	SB-2W	3/27/06	1336	G.W.	3			X	X											3 voas w/HCl
	SB-3W	3/27/06	1600	G.W.	3			X	X											3 voas w/HCl
	SB-4W	3/28/06	935	G.W.	3			X	X											3 voas w/HCl
	SB-5W	3/28/06	1150	G.W.	3			X	X											3 voas w/HCl
	COMP	3/28/06	1250	Soil	4			X	X								X	X		

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>3/29/06</b>	Time: <b>1146</b>
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <b>3/29/06</b>	Time: <b>1230</b>
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

## LOGIN SAMPLE RECEIPT CHECK LIST

Client: TRC Solutions

Job Number: 720-2895-1

**Login Number: 2895**

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	NA	
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	
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	
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.	False	SW-5 2 VOAS WITH LARGE BUBBLE
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	