Draft
Contamination Reduction Plan

Former Creamery
95 John Street, Tomales, California
(Claim Number 12995)

Prepared by:

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Introduction

This Contamination Reduction Plan has been prepared on behalf of the Elena Iacono Revocable Trust to address the residual from a petroleum release at 95 John Street, Tomales California. The recommended remedial alternative, air sparging with ozone together with a soil vapor extraction system has been selected to accomplish a rapid, mass removal of residual hydrocarbons from groundwater and the vadose zone. The goal is to reduce the concentrations in groundwater to meet the active remediation target cleanup levels and to allow natural attenuation processes to achieve water quality objectives.

Site Location and History

The former creamery located 95 John Street in Tomales, CA currently is used as a storage warehouse. A 550-gallon gasoline underground storage tank (UST) and a 3,200-gallon furnace oil UST were removed from the site in September 1995. Soil samples taken during UST removal indicated the presence petroleum hydrocarbons and based on those results, the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) required additional investigation to determine if a groundwater impact had occurred at the site.

In September and October of 1997 six borings were drilled and soil and grab-groundwater samples taken. Based on the results of this work, four monitoring wells (MW-1 through MW-4) were installed in January 1999 at the locations shown on Figure 2. The results from these original wells indicated the need for additional monitoring wells to further define the extent of the groundwater impact. Two additional monitoring wells (MW-5 and MW-6) were installed in April 2000, and four additional monitoring wells (MW-7 through MW-10) were installed in January 2004.

The site has been monitored on a quarterly basis since the installation of the original four monitoring wells in 1999. The results indicate a plume of groundwater impact concentrated in the northwest corner of the property and continuing into the First Street right-of-way.

Site Lithology and Hydrogeology

Site lithology consists of a surface layer that is predominately silt and sand with localized areas of clay. The surface layer is underlain at variable depths by a dense sand unit that contains variable amounts of silt and gravel. The sand may grade into sandstone with increased depth as indicated by the relatively high blow counts, 90 to 100 for 6 inches or less of sample during drilling.

Free groundwater has been observed to range from 1 foot bgs in MW-6 to almost 11 feet bgs in MW-4. Groundwater flow direction has been generally to the southwest. The large culvert on the west side of the property that carries the flow of Tomales Creek under Highway 1 (Shoreline Highway) probably redirects groundwater flow to the south in the vicinity of the culvert.

Analytical Data

Groundwater analytical data from January 1999 to November 2004 are summarized in Appendix C. The results of the latest quarterly sampling of the eleven monitoring wells are shown in Table 1.

Table 1. 95 John Street Groundwater Analytical Results November 9, 2004

ID	TPH-g	B	T	E	X	MTBE
	---------- µg/L ----------					
MW-1	9,000	71	170	230	550	<20
MW-2	<50	0.89	0.79	<0.5	<1.5	<2.5
MW-3	<50	4.8	0.65	0.59	1.5	<2.5
MW-4	<50	NA	1.7	1.1	0.53	<1.5
MW-5	3,200	70	140	130	290	<25
MW-6	1,700	24	42	54	150	<2.5
MW-7	5,600	31	49	72	310	<10
MW-8	<50	<0.5	<0.5	<0.5	<1.5	<2.5
MW-9	<50	1.7	1.2	1.3	2.7	<2.5
MW-10	<50	<0.5	<0.5	<0.5	<1.5	<2.5
MW-11	1,900	82	24	52	90	<2.5*

PFP Cleanup Program Criteria

The Pay-for-Performance (PFP) cleanup program is a fixed-price remedial cleanup administered by the California State Water Resources Control Board – Underground Storage Tank Cleanup Fund (UST Fund). In the PFP program, a Site currently in the UST Fund is converted from a reimbursable cost program to a fixed-price cleanup program.

The claimant, in concurrence with the UST Fund and local regulatory agencies, is paid a percentage of the agreed upon fixed-price cost when baseline concentrations of Contaminants of

Concern (COCs) have been reduced to remediation milestones. Final payment is received from the UST Fund when concentrations of chemicals of concern (COCs) in all wells within the Area of Concern have been attained and levels maintained at or below the Active Remediation Targets (ARTs). Payments are made when the Fund determines that the Remediation Milestones specified below have been attained. The Payment Schedule, as described in the Subsections of Section 16 in the Condition of Payment and referenced below, and the corresponding percentages of the total price that will be reimbursed to the Claimant, are as follows:

Subsection	Remediation Milestone	Payment (%)
A. 16.A.	Start-up	35
B. 16.B.	25%	15
C. 16.C.	50%	15
D. 16.D.	75%	20
E. 16.E.	100% attained	5
F. 16.F.	100% maintained	10

Other components of the PFP program include regulatory oversight in the development of the ARTs, establishing baseline COC concentrations, and performance criteria.

Regulatory Oversight

The PFP program is administered through the UST Fund and overseen by the SFBRWQCB. SFBRWQCB will verify baseline concentrations and achievement of reduction milestones and approval of payments upon achieving the remediation milestones will be administered by the UST Fund in consultation with SFBRWQCB.

Development of ARTs

In accordance with the PFP cleanup program, ARTs are the COC concentration levels to be achieved through active remedial actions conducted at the Site. Once the ARTs have been achieved, active remedial actions cease. Concentrations of COCs are then measured at the Site for four consecutive quarters to confirm that COCs have maintained levels at or below the ARTs through natural attenuation or stabilization.

The contaminants of concern (COCs) for 95 John Street are: gasoline (TPH-g), benzene, toluene, ethylbenzene, total xylenes, (BTEX). Table 3 lists the ARTs proposed for this site. As discussed in Appendix A, the exposure pathway that has the potential for completion is the contamination of groundwater used as a source of drinking water. To eliminate this potential pathway, the recommended treatment methodology is air sparging with ozone together with soil vapor extraction for the rapid, mass removal of contaminants from the groundwater, followed by natural attenuation that will be enhanced due to the increased oxygen concentrations from sparging operations.

Table 3. 95 John Street Proposed ARTs

Chemical Parameter	Maximum Concentration in Groundwater 3/17/04 (ug/L)	Drinking Water Screening Levels* (ug/L)	Drinking Water MCL (ug/L)	Active Remediation Targets (ARTs) (ug/L)
Benzene	64	1.0	1.0	1.0
Ethyl Benzene	340	30	700	30
Toluene	210	40	150	40
Xylene	320	13	1,750	13
TPH -gasoline	12,000	100		100

From Table F-1a. San Francisco Regional Water Quality Control Board; Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Interim Final July 2003*

Contaminant Reduction Strategy

Impacts to groundwater appear to be concentrated in the area of the former UST at 95 John Street and the area north and northwest in First Street. Previous soil sample results indicate that TPH-g remains in contact with soil in the vadose zone. This area will have both air sparging and soil vapor extraction to remove residual product from both the groundwater and the vadose zone. The sparge and SVE systems will be designed and installed based on an estimated radius of influence of 12 feet for the sparge wells of 20 feet for the SVE wells.

Description

Sparging involves injecting gas through sparge wells installed within the petroleum hydrocarbon plume. Sparging is anticipated to be effective in volatilizing lower weight petroleum hydrocarbons and in providing oxygen for enhanced biological degradation. However, it does have several technical limitations for use in fine-grained soil (i.e., silt and clay sediments). These limitations are related to the effective permeability of the capillary and saturated-zone soils. Permeability is a function of factors that include sediment type and moisture content.

Gas will flow towards the path of least resistance, which consists of media having the lowest air entry pressures. Thus, channels commonly form preferentially in media having the largest pore size and by inference, the highest permeability. Once channels are established, they are maintained as long as the air pressure is maintained. The greatest effectiveness therefore is established where there are as many channels as possible (i.e., many small channels evenly distributed as opposed to a few large channels spaced far apart). Air sparging works most effectively with air flow rates in a range of 3 to 10 standard cubic feet per minute (scfm) per sparge point.

A refinement of the air sparging technology is the addition of ozone to the sparging air. Air sparging with ozone has been identified as one of the promising emerging remediation technologies that use in-situ chemical oxidation (EPA, 1998). The process consists of a combination of in-situ air stripping, where dissolved contaminants are extracted from the groundwater into air bubbles and chemical oxidation. The extracted contaminants are chemically oxidized *in-situ* within a gas/gas reaction in the presence of ozone containing gas bubbles. In addition to chemical oxidation, as a result of the high residual concentration of oxygen, the process also supports enhanced biodegradation to remove contaminants. Based on site conditions, air sparging with the addition of ozone appears to be highly suitable for the 95 John Street site. The sparge wells will be located as shown on Figure 5.

Soil vapor extraction is a cleanup technology commonly used to remove volatile and certain semi-volatile organic compounds (VOCs and SVOCs) in vapor form from contaminated soil. A typical SVE system consists of vapor extraction wells, a vacuum blower or a pump, air/water separator, and a vapor treatment system.

Removal of volatile compounds by SVE involves creating a vacuum at the extraction wells. Air in the surrounding soil containing the contaminated vapors is then extracted and treated before being released to the atmosphere.

The soil vapor extraction system will be permitted by the Bay Area Air Quality Management District and will comply with all air quality requirements. SVE well locations are shown on Figure 5

Scope of Work

Task 1: Site Health and Safety Plan

A site-specific health and safety plan (HASP) will be developed for the site. The HASP will provide:

- Accountability for safety and health performance,
- Well defined expectations regarding safety and health,
- Comprehensive hazard prevention and control methods, and
- Record keeping requirements to track program progress.

Task 2: Baseline Concentrations and Reporting

Baseline concentrations for TPH-gasoline and BTEX will be based on averaging the values for the last four quarterly monitoring events. For newly installed MW-11, the average of all

monitoring results will serve as the baseline concentrations. No separate baseline sampling will be conducted.

The baseline report documenting baseline conditions to be used in determination of performance milestones will be prepared and submitted to SFBRWQCB and the UST Fund for approval. The report will include:

- A summary of the groundwater analytical results based on the last four monitoring events
- A summary of remediation milestone percentages and corresponding percentage of the baseline data,
- A figure showing the locations of all key monitoring wells and perimeter wells and

Task 3: Sparging System

Prior to starting construction at the Site, a utilities inspection will be conducted using Underground Service Alert (USA) on public property and a private utility locator on private property. Sparge wells will be located to maintain minimum safe distance from utilities for both drilling/construction and operation with ozone gas.

Twenty-four sparge wells will be installed at the Site. Sparge wells will terminate at 20-feet bgs and will be constructed in conformance with Marin County requirements by a California licensed C-57 Contractor. The base of each sparge well will contain a 36-inch long, 1-inch diameter diffuser. The top of the diffuser will be fitted with 3/8-inch diameter polyethylene tubing that extends to the ground surface. A check valve and an isolation valve will be provided for each sparge well.

A sand filter pack consisting of #3 graded sand will be placed within the annulus of the diffuser portion of the sparge well to approximately 2-feet above the diffuser. A minimum 2-foot seal consisting of bentonite pellets will be placed above the sand filter pack. A Portland cement grout sanitary seal will be placed above the bentonite seal to the ground surface. A protective traffic rated steel cover will be placed over the top of the sparge well at the ground surface.

The diffusers will be connected to an air compressor in an electronic control panel using polyethylene tubing. The sparging system will be capable of 4 standard cubic feet per minute (scfm) at 30 pounds per square inch gauge (psig). Gas flow to the air sparging lines will be

controlled by solenoid valves connected to an electronic programmable timer to allow the sequence and duration of sparging to be varied.

Task 4: Soil Vapor Extraction System

The SVE system will include a 150 cfm blower capable of producing a vacuum of 15 inches of mercury, a water knockout tank and vapor phase granular activated carbon filters (GAC) or an all-electric catalytic oxidizer. The SVE wells will be plumbed into a manifold that will allow the operation of the five wells simultaneously. The operator will monitor the SVE operation to balance the removals at all wells.

The SVE system will be permitted by the Bay Area Air Quality Management District and will conform with clean air standards.

Task 5: Remediation System Startup and Reporting

Following the installation of the sparge equipment, the sparge system will be operated for approximately five days to monitor system functions. During the startup period, the system will be inspected and maintained on a daily basis by PSEC personnel equipped with ozone sensing devices with particular attention to potential leaks in the ozone delivery system and sparge wells. The startup period will be scheduled to begin at the beginning of a work week to allow at least three days of observation by PSEC and SFBRWQCB before automatic operations begin. The SVE system will be started, tested and sampled in conformance with Bay Area AQMD regulations. SFBRWQCB will be notified in writing and by telephone, 72 hours prior to system start-up. Following the system start-up period, a report will be submitted to SFBRWQCB and the UST Fund for approval of the remedial system start-up milestone. The remediation system start-up report will include:

- Details of the system design, construction and operations
- Record drawings,
- A summary of the system equipment installation methodology,
- Analytical data collected during the start-up period, if any,
- Calculations of mass of COCs present in groundwater, and
- Field data sheets, laboratory data certificates and chain-of-custody forms.

Task 6: Quarterly Monitoring and Reporting

Quarterly monitoring and reporting (QMR) will be conducted according to the existing QMR schedule. Routine QMR will be invoiced to the UST Fund as a regular UST Fund claim,

rather than as part of the Pay for Performance project. This arrangement will allow the claimant's consultant to continue the existing QMR program and assure the continuous collection and reporting of site conditions. Groundwater samples will be collected from the key and perimeter monitoring wells at the Site. Quarterly monitoring reports will be prepared and submitted to SFBRWQCB and the UST Fund within 45 days of the sampling event. The quarterly monitoring reports will be used to report achievement of the intermediate remediation milestones.

Quarterly Groundwater Sampling & Analysis

- ***Key and Perimeter Wells***

Quarterly sampling of groundwater will be conducted for the key monitoring wells, MW-1, MW-5 through MW-7 and MW-11. Quarterly sampling of perimeter wells, MW-2 through MW-4 and MW-8 through MW-10 will be conducted until COCs have been reduced by 50 percent from baseline. If the perimeter wells meet this criterion, then their monitoring frequency may be reduced to twice a year in spring and fall following approval from the Regulator and the UST Fund. Except for the last round of monitoring before final payment is requested, a monitoring well can be eliminated from the monitoring program if COCs are detected below the corresponding ARTs.

- ***Depth to groundwater***

Prior to sampling, depth to groundwater measurements will be collected from the key and perimeter monitoring wells. The depth to groundwater will be measured using an electronic sounding device from the top of the well casing to the nearest 0.01-foot. Groundwater elevations will be calculated using the top of casing elevations surveyed to the nearest 0.01-foot above mean seal level (MSL) using the National Geodetic Vertical Datum.

- ***Sampling Methodology***

The groundwater samples will be collected using either low-flow purge and sample collection techniques (USEPA, 1996) or individual bailers. Groundwater parameter data, including temperature, pH, electrical conductivity, DO, turbidity and depth to groundwater, will be monitored and recorded every three minutes during well purging for a minimum of 15 minutes. Groundwater samples will be collected into laboratory supplied 40-milliliter glass vials preserved with hydrochloric acid following stabilization of groundwater parameters over the last three readings during the purging activities. Following sample collection, the samples will be labeled, placed in a chilled cooler and transported to a California State certified laboratory under USEPA chain-of-custody

protocols for chemical analysis. Duplicate samples, travel blanks, field blanks and equipment blanks, as appropriate, will be transported with the primary samples to the analytical laboratory.

Groundwater samples will be submitted for chemical analysis to a California approved laboratory for chemical analysis. Groundwater samples will be analyzed for TPHg/BTEX using USEPA Method 8015M/8021.

Quarterly Reporting

Quarterly monitoring reports will be prepared summarizing the quarterly monitoring sampling activities. The quarterly monitoring reports will include:

- A description of field activities performed,
- A summary of remedial system operations and maintenance conducted during the quarter,
- Figures showing the site plan, groundwater gradient maps, all monitoring wells, and iso-concentration contours for COCs,
- A table summarizing well construction details,
- A table summarizing the depth to groundwater, groundwater elevation and analytical data for each monitoring well. The ARTs for each constituent of concern will be shown on this table,
- A table summarizing mass removal data for COCs. The table will include the mass removal rates observed during the quarterly monitoring period and cumulative mass removed during the monitoring period,
- All field data sheets, laboratory data certificates and chain-of-custody forms,
- Time trend plots for COCs in all monitoring wells in relation to the ART,
- Summary plots of cumulative mass removal of benzene,
- A time trend plot of total contaminants of concern will be used to determine the baseline. The baseline concentration will be included on the graph.

Task 7: Verification Sampling and Reporting

Verification sampling will be conducted following attainment of the ARTs in groundwater concentrations measured at the Site. The results of the verification sampling and risk assessment will be included in the 100 percent attainment milestone report and submitted to SFBRWQCB and the UST Fund for approval.

- ***Verification Sampling and Reporting***

Groundwater samples will be collected from the key and perimeter monitoring wells at the Site to verify that concentrations of COCs are at or below the ARTs. The 100 percent milestone attained payment under the conditions of payment shall not be payable until all monitoring wells confirm that concentrations of COCs are at or below their respective ARTs. Upon approval of the 100 percent milestone attained report by the UST Fund, the remedial system will be shut down and quarterly monitoring will continue.

The quarterly monitoring will be conducted for four consecutive quarters following shut down of the remedial system to verify concentrations of COCs remain at or below the ARTs. Following four consecutive quarters of COCs in groundwater remaining at or below the ARTs, the 100 percent milestone maintained report will be prepared and submitted to SFBRWQCB and the UST Fund for approval. Final payment will be made following approval of the 100 percent milestone maintained report.

Task 8. Sparge Well Abandonment and Site Restoration

After completion of the active remediation phase, all sparge wells will be abandoned in accordance with Marin County requirements. The site will be restored to pre-remedial conditions.

Monitoring wells will remain in-place to allow continued monitoring of natural attenuation at the site.

Project Schedule

Due to the unknown conditions prevalent in working underground, it is not possible to accurately schedule the attainment of milestones. PSEC anticipates operating the sparge/SVE system for between eighteen and twenty-four months. Once approval to construct is granted, the system installation will take between three and six months, depending on equipment deliveries. Following equipment installation and startup, the system will be operated 24-hours per day until attainment of the payment milestones identified in the Condition of Payment in Appendix C.

APPENDIX A

Development of Remedial Goals

1.0 DEVELOPMENT OF REMEDIAL GOALS

Investigations at and in the vicinity of 95 John Street, Tomales, California have revealed measurable concentrations of petroleum hydrocarbons and volatile organic compounds (VOCs) including benzene, toluene, ethyl benzene and xylenes (BTEX) in soil and groundwater. The findings have been evaluated with respect to the nature of the chemicals in soil, and groundwater, site-specific geologic properties, the beneficial uses of impacted water and the threats posed by the chemicals.

Cleanup levels for groundwater are determined, primarily, using site-specific risk-based analyses and consideration of applicable regulatory requirements. Risk-based analyses focus on the identification of possible receptors and the potential exposure to the identified chemicals e.g., dermal contact, ingestion, and inhalation. Regulatory requirements include restoration of the beneficial uses of groundwater. Consistent with State Water Resources Control Board (SWRCB) policy, this Contamination Reduction Plan identifies both active remediation targets that address the risk-based exposures and the applicable water quality objectives that are to be achieved through natural attenuation following active remediation.

1.1 DEVELOPMENT OF ACTIVE REMEDIATION TARGETS

In lieu of site-specific requirements or regulatory guidance, screening level values can be used to identify conditions of potential concern or provide a conservative cleanup level. Environmental Screening Levels (ESLs) were considered in this evaluation including the California Regional Water Quality Control Board – San Francisco Region (Regional Board) Environmental Screening Levels (ESLs) as outlined in their *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Interim Final* July 2003.

1.1.1 Conceptual Site Model

A Conceptual Site Model (CSM) was developed to assist in the evaluation of potential impacts associated with residual chemicals at the Site (SWRCB, 2000). The CSM presents potential exposure pathways to the chemicals present at the Site. The CSM is depicted on Figure A-1. The assessment consisted of two components: (1) identification of potential exposure pathways and (2) identification of appropriate risk-based active remediation targets.

1.1.2 Exposure Pathways Evaluation

An evaluation was performed to identify potential exposure pathways at the Site based on the location and distribution of the affected soil and groundwater, land use, concentrations of petroleum hydrocarbons and VOCs in soil and groundwater and the distance and direction to the nearest drinking water well. Exposure pathways evaluated at the Site include inhalation of indoor and outdoor air potentially containing vapors and ingestion of groundwater impacted by the UST release. Potential receptors include present and future residents and workers.

VOCs in groundwater have the potential to migrate to outdoor air or accumulate in indoor environments. Based on the presence of coarser-grained fill material on the Site, there is

potential for chemicals present in groundwater to migrate to indoor air. However, the concentration of these compounds at the Site are well below the ESLs for these compounds as listed in Table F-1a of *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Interim Final* July 2003.

Separate phase non-aqueous phase liquid (NAPL) or "free product" has not been detected in samplings at this site, therefore, the exposure pathway to free product was not considered complete. Similarly, the exposure pathways for vapor inhalation and aquatic habitat are also not considered complete.

The groundwater ingestion pathway is considered complete because impacted groundwater in the vicinity of the Site is currently used as a source of drinking water. Although the California Well Standards Bulletin 74-90 restricts the construction of water supply wells within the upper 50 feet at a contaminated site and construction of water supply wells without the approval of the regulatory agency is not permitted (California Department of Water Resources, 1991), pre-existing wells have tested positive for petroleum hydrocarbons. Therefore, while these institutional controls may limit the future construction of drinking water wells, they do not sever the current groundwater ingestion exposure pathway at the Site. Based on current conditions, there is a complete exposure pathway to drinking water containing petroleum hydrocarbons.

1.1.3 Groundwater Active Remediation Targets

In accordance with the PFP cleanup program, Active Remediation Targets (ARTs) were developed for on-site groundwater. The ARTs, shown in Table A-1, are risk-based concentration levels to be achieved through active remedial actions conducted at the Site. Once the ARTs have been achieved, active remedial actions will cease and natural attenuation will continue. Because the drinking water ingestion exposure pathway is complete, applicable groundwater remediation criteria were evaluated for protection of human health. The identified ARTs were developed based on remediating the onsite groundwater using current risk-based protection screening levels for the affected media.

Table A-1: Active Remediation Targets

Chemical Parameter	Maximum Concentration in Groundwater 9/3/04 (µg/L)	Drinking Water Screening Levels* (µg/L)	Drinking Water MCL (µg/L)	Active Remediation Targets (ARTs) (µg/L)
Benzene	64	1.0	1.0	1.0
Ethyl Benzene	340	30	700	30
Toluene	210	40	150	40
Xylene	320	13	1,750	13
TPH -gasoline	12,000	100		100

From Table F-1a. San Francisco Regional Water Quality Control Board; Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater, Interim Final July 2003*

1.2 LONG-TERM GROUNDWATER REMEDIAL GOALS

In general, target cleanup levels for groundwater are based on the numerical water quality objectives designated in the Water Quality Control Plan for the San Francisco Bay Basin

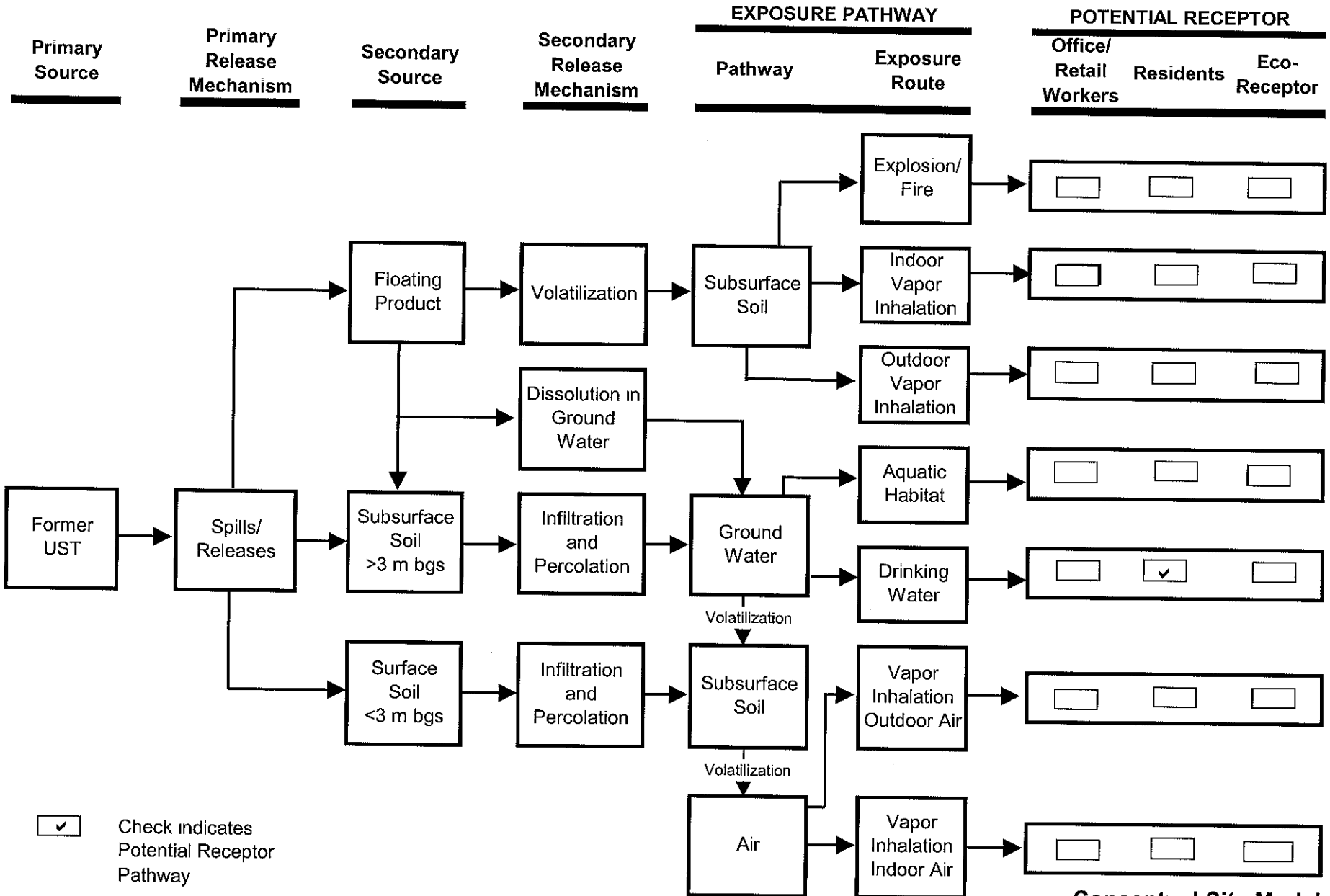
("Basin Plan"). The groundwater beneath the Site has been designated to have the potential beneficial use of municipal and domestic water supply (MUN). State Water Resources Control Board Resolution 88-63, "Sources of Drinking Water Policy," establishes that all groundwater of the State, except under defined criteria, are to be protected as existing or potential sources of MUN in accordance with the Basin Plan.

Exclusion criteria under Resolution 88-63 include the following: 1) the total dissolved solids (TDS) in groundwater are greater than 3,000 mg/l; and 2) the average sustained yield from a single well is less than 200 gallons per day. While previous investigations at this Site have not determined that sustained yields of greater than 200 gallons per day are possible, nor have they established that based on field measurements of conductivity, the TDS is less than 3,000 mg/l, the presence of shallow drinking water wells in the immediate vicinity of the Site indicate that the Site should be considered a potential drinking water resource.

The Regional Board in the Basin Plan has adopted maximum contaminant levels (MCLs) as numerical water quality objectives for protection of groundwater. The State Department of Health Services (DHS) has set MCLs for benzene, toluene, ethyl benzene, and xylenes in drinking water of 0.001 mg/l, 0.150 mg/l , 0.700 mg/l, and 1.750 mg/l respectively (California Code of Regulations, title 22, § 64444).

The Basin Plan also includes water quality objectives that require that waters "shall not contain taste- or odor-producing substances in concentrations that…adversely affect beneficial uses." Based on the taste and odor threshold, the applicable groundwater numerical water quality objective for TPH-g is 0.100 mg/l , equivalent to three threshold odor numbers (TON), the United States Environmental Protection Agency secondary MCL for nuisance odor. Similarly, the organoleptic thresholds for toluene and xylenes are 0.040 mg/l and 0.013 mg/l, respectively.

Following the active remediation proposed in this PFP cleanup, natural attenuation processes will continue to remove hydrocarbon residuals until water quality objectives are achieved.



Conceptual Site Model
95 John Street
Tomales, CA

Pacific States Environmental Contractors

Figure A-1

APPENDIX B

Historical Groundwater Data

Table 1: Soil Boring Analytical Results - 1997
95 John Street, Tomales

ID	Date	TPH-g	TPH-d	B	T	E	X
		mg/kg					
B-1-4.5'	09/30/97	NA	<50	ND	ND	ND	ND
B-1-10'	09/30/97	NA	<50	ND	ND	ND	0.0053
B-1-15'	09/30/97	NA	<50	ND	ND	ND	ND
B-2-5'	09/30/97	NA	39	ND	ND	ND	ND
B-2-10'	09/30/97	NA	170	ND	ND	ND	ND
B-2-15'	09/30/97	NA	14	ND	ND	ND	ND
B-3-5'	10/01/97	<50	NA	ND	ND	ND	ND
B-3-10'	10/01/97	24	NA	ND	0.052	0.12	0.78
B-3-15'	10/01/97	27	NA	ND	0.31	0.21	1.2
B-4-5'	10/01/97	<50	NA	ND	ND	ND	ND
B-4-10'	10/01/97	<50	NA	ND	ND	ND	ND
B-4-15'	10/01/97	<50	NA	0.0097	0.011	0.0053	0.01
B-5-10.5'	10/01/97	<50	NA	ND	ND	ND	ND
B-5-15'	10/01/97	<50	NA	ND	ND	ND	ND
B-6-10'	10/01/97	<50	1.2	ND	ND	ND	ND

Table 2: Groundwater Boring Analytical Results - 1997
95 John Street, Tomales

ID	Date	TPH-g	TPH-d	B	T	E	X
		ug/L					
B-1-water	09/30/97	NA	ND	0.64	ND	ND	ND
B-2-water	09/30/97	NA	ND	0.35	ND	ND	ND
B-3-water	10/01/97	38,000	NA	89	2,500	890	5,100
B-4-water	10/01/97	ND	NA	3.8	1.3	ND	0.75
B-5-water	10/01/97	ND	NA	0.78	ND	ND	ND
B-6-water	10/01/97	ND	210	0.92	ND	ND	ND

Table 3: Soil Boring Analytical Results - Monitoring Wells 1999 and 2000
95 John Street, Tomales

ID	Date	TPH-g	TPH-d	B	T	E	X	MTBE
		mg/kg						
MW-1-10'	01/11/99	10	NA	ND	0.053	0.31	ND	ND
MW-1-15'	01/11/99	41	NA	0.057	0.16	0.36	ND	ND
MW-2-12'	01/11/99	ND	NA	ND	ND	ND	ND	ND
MW-2-15'	01/11/99	ND	NA	ND	ND	ND	ND	ND
MW-3-10'	01/11/99	ND	NA	ND	ND	ND	ND	ND
MW-3-15'	01/11/99	ND	NA	ND	ND	ND	ND	ND
MW-4-10'	01/11/99	ND	1.2	ND	ND	ND	ND	ND
MW-4-15'	01/11/99	ND	ND	ND	ND	ND	ND	ND
MW-5-10'	04/11/00	5.4	NA	ND	ND	0.07	0.18	ND
MW-5-14.5'	04/10/00	ND	NA	ND	ND	0.011	ND	ND
MW-6-10'	04/17/00	8.4	NA	ND	ND	0.084	0.15	ND
MW-6-15'	04/17/00	39	NA	ND	0.052	0.18	0.65	ND

Table 4: Soil Boring Analytical Results - Monitoring Wells 2004
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		mg/kg					
MW-7-5'	01/14/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-7-10'	01/14/04	24	<0.020	0.16	0.061	<0.060	<0.10
MW-7-15'*	01/14/04	6.6	0.020	0.020	0.035	0.15	<0.025
MW-7-20'	01/14/04	1.0	0.026	0.053	<0.005	0.015	<0.025
MW-8-5'	01/14/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-8-10'	01/14/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-8-15'	01/14/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-9-5'	01/15/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-9-10'	01/15/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-9-15'	01/15/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-10-5'	01/15/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-10-10'	01/15/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-10-15'	01/15/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025
MW-11@5.5'	11/02/04	3.6	0.070	0.054	0.042	0.066	<0.025
MW-11@10.0'	11/02/04	1.4	0.045	0.019	0.056	0.078	<0.025
MW-11@15.0'	11/02/04	<1.0	<0.005	<0.005	<0.005	<0.015	<0.025

* Also contained 4.4 mg/kg lead.

Table 5: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		µg/L					
MW-1	01/27/99	12,00	21	150	240	570	ND
	05/05/99	20,000	13	220	490	1,100	ND
	07/26/99	16,000	16	230	410	880	ND
	10/28/99	12,000	13	210	360	800	ND
	01/26/00	15,000	14	220	360	820	ND
	04/19/00	19,000	270	290	460	1,000	ND
	07/26/00	Well inaccessible					
	12/4/2000*	10,000	220	210	300	690	ND
	02/19/01	Well inaccessible					
	05/24/01	21,000	ND	210	460	960	ND
	08/28/01	12,000	78	190	260	560	<25
	11/09/01	11,000	74	200	360	900	<50
	02/08/02	7,600	190	170	250	550	<50
	05/10/02	Well inaccessible					
	08/07/02	Well inaccessible					
	11/14/02	10,000	91	190	280	620	<15
	02/07/03	11,000	96	200	290	590	<25
	05/12/03	20,000	35	230	490	1,100	<26
	08/22/03	17,000	15	100	300	650	<43
	12/18/03	8,600	76	1,900	250	550	<10
	06/02/04	10,000	96	210	280	630	<20
	08/24/04	12,000	26	210	340	810	<20**
	11/09/04	9,000	71	170	230	550	<20

* Also detected 640 ug/L TPH-d; however; lab report indicated was result of weathered gasoline.

** MTBE confirmed absent by GC/MS (8260).

Table 5, Continued: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		µg/L					
MW-2	01/27/99	ND	ND	0.72	ND	0.67	ND
	05/05/99	ND	ND	ND	ND	ND	ND
	07/26/99	ND	ND	ND	ND	ND	ND
	10/28/99	90	ND	8.9	0.78	6.4	ND
	01/26/00	ND	ND	ND	ND	ND	ND
	04/19/00	ND	ND	ND	ND	ND	ND
	07/26/00	ND	ND	ND	ND	ND	ND
	12/4/2000*	ND	ND	ND	ND	ND	ND
	02/19/01	ND	ND	ND	ND	ND	15
	05/24/01	ND	ND	ND	ND	ND	ND
	08/28/01	<50	<0.5	0.6	0.6	1.6	2.7
	11/09/01	<50	<0.5	<0.5	<0.5	1.5	<2.5
	02/08/02	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	05/10/02	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	08/07/02	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	11/14/02	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	02/07/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	05/12/03	<50	<0.3	<0.3	<0.5	<0.5	<1.0
	08/22/03	<50	<0.3	<0.3	<0.5	<0.5	<1.0
	12/18/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	06/02/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	11/09/04	<50	0.89	0.79	<0.5	<1.5	<2.5

* Also ND for TPH-d.

Table 5, Continued: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		µg/L					
MW-3	01/27/99	ND	4.8	0.42	ND	0.98	ND
	05/05/99	ND	0.97	ND	0.55	1.2	ND
	7/26/1999*	ND	ND	ND	ND	ND	ND
	10/28/99	ND	0.92	6.9	1.8	4.2	ND
	01/26/00	ND	2.5	ND	ND	ND	ND
	04/19/00	ND	3.9	ND	ND	ND	ND
	07/26/00	ND	2.9	ND	0.65	1.6	ND
	12/4/2000*	ND	3.7	ND	ND	ND	ND
	02/19/01	ND	ND	ND	ND	ND	ND
	05/24/01	ND	4.0	ND	ND	ND	ND
	08/28/01	<50	1.1	<0.5	<0.5	<1.5	<2.5
	11/09/01	<50	<0.5	<0.5	0.96	3.2	<2.5
	02/08/02	<50	0.52	<0.5	<0.5	<1.5	<2.5
	05/10/02	<50	4.7	<0.5	<0.5	<1.5	<2.5
	08/07/02	<50	2.3	<0.5	<0.5	<1.5	<2.5
	11/14/02	<50	2.0	<0.5	<0.5	<1.5	<2.5
	02/07/03	<50	3.8	<0.5	<0.5	<1.5	<2.5
	05/12/03	<50	4.3	<0.3	<0.5	<0.5	<1.0
	08/22/03	<50	3.4	<0.3	<0.5	<0.5	<1.0
	12/18/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	06/02/04	<50	4.2	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	3.9	<0.5	<0.5	<1.5	<2.5
	11/09/04	<50	4.8	0.65	0.59	1.5	<2.5

* Also ND for TPH-d.

Table 5, Continued: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	TPH-d	B	T	E	X	MTBE
		µg/L						
MW-4	01/27/99	ND	ND	ND	ND	ND	ND	ND
	05/05/99	ND	83	ND	ND	ND	ND	ND
	07/26/99	ND	ND	ND	ND	ND	ND	ND
	10/28/99	ND	ND	ND	3.5	0.82	1.5	ND
	01/26/00	ND	ND	ND	ND	ND	ND	ND
	04/19/00	ND	ND	ND	ND	ND	ND	ND
	07/26/00	ND	ND	ND	ND	ND	ND	ND
	12/04/00	ND	ND	ND	ND	ND	ND	ND
	02/19/01	ND	NA	ND	ND	ND	ND	ND
	05/24/01	ND	NA	ND	ND	ND	ND	ND
	08/28/01	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	11/09/01	<50	NA	<0.5	<0.5	0.85	2.8	<2.5
	02/08/02	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	05/10/02	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	08/07/02	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	11/14/02	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	02/07/03	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	05/12/03	<50	NA	<0.5	<0.3	<0.5	<0.5	<1.0
	08/22/03	<50	NA	<0.5	<0.3	<0.5	<0.5	<1.0
	12/18/03	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	06/02/04	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5
	11/09/04	<50	NA	1.7	1.1	0.53	<1.5	<2.5

Table 5, Continued: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		µg/L					
MW-5	04/19/00	340	20	12	6.0	21	ND
	07/26/00	2,500	82	87	100	220	ND
	12/4/2000*	1,400	56	67	83	150	ND
	02/19/01	360	11	12	12	27	ND
	05/24/01	4,200	93	160	170	410	ND
	08/28/01	1,600	58	65	81	130	<10
	11/09/01	3,700	82	140	160	290	<25
	02/08/02	510	22	19	24	38	<5.0
	05/10/02	92	4.2	1.6	5.2	3.0	<2.5
	08/07/02	1,500	43	61	66	100	<10**
	11/14/02	1,900	41	69	84	110	<5.0
	02/07/03	110	5.1	1.2	5.2	3.0	<2.5
	05/12/03	<50	2.2	<0.3	1.5	<0.5	<1.0
	08/22/03	1,400	26	46	46	93	<8.7
	12/18/03	1,000	27	48	45	88	<2.5
	06/02/04	<50	3.5	2.5	2.7	3.1	<2.5
	08/24/04	2,600	59	120	110	230	<20
	11/09/04	3,200	70	140	130	290	<25

* Also ND for TPH-d

** Confirmed absent by GC/MS(EPA 8260B).

Table 5, Continued: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		µg/L					
MW-6	04/19/00	2,200	23	32	73.0	260	ND
	07/26/00	2,500	32	37	11	290	ND
	12/4/2000*	1,900	34	36	90	230	ND
	02/19/01	950	14	16	28	79	ND
	05/24/01	3,100	19	36	100	320	ND
	08/28/01	1,500	23	34	52	140	<10
	11/09/01	2,500	37	68	120	310	<25
	02/08/02	1,300	20	32	60	130	<5.0
	05/10/02	440	8.9	6	19	31.0	<2.5
	08/07/02	1,700	26	32	63	150	<10**
	11/14/02	2,200	30	48	75	170	<15
	02/07/03	750	14	16	28	63.0	<2.5
	05/12/03	450	6.2	4.5	15	26	<1.0
	08/22/03	960	10	11	25	59	<4.3
	12/18/03	1,000	18	29	42	110	<2.5
	06/02/04	230	6.7	5.2	8.8	20	<2.5
	08/24/04	770	16	22	30	80	<2.5
	11/09/04	1,700	24	42	54	150	<2.5

* Also detected 100 ug/L TPH-d; however; lab report indicated was result of weathered gasoline.

** Confirmed absent by GC/MS(EPA 8260B).

Table 5, Continued: Groundwater Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		µg/L					
MW-7	01/22/04	6,700	8.2	49	83.0	490	<25
	06/02/04	5,400	34	22	65	320	<20
	08/24/04	5,300	64	49	71	320	<10
	11/09/04	5,600	31	49	72	310	<10
MW-8	01/22/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	06/02/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	11/09/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
MW-9	01/22/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	06/02/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	11/09/04	<50	1.7	1.2	1.3	2.7	<2.5
MW-10	01/22/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	06/02/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	11/09/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
MW-11	11/09/04	1,900	82	24	52	90	<2.5*

* Confirmed absent by GC/MS (EPA 8260).

Table 6: Groundwater Flow Direction and Gradient
95 John Street, Tomales

Well #	Date	Top of Casing Elevation (feet > msl)	Depth to Groundwater (feet)	Water Level Elevation (feet > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	01/27/99	73.79	3.58	71.21	S65°W i = 0.026
MW-2		75.96	5.24	70.12	
MW-3		75.95	4.98	70.97	
MW-4		76.17	4.47	71.70	
MW-1	05/05/99	73.79	2.53	71.26	S65°W i = 0.05
MW-2		75.96	6.32	69.64	
MW-3		75.95	5.42	70.53	
MW-4		76.17	4.91	41.26	
MW-1	07/26/99	73.79	4.06	69.73	S40°W i = 0.02
MW-2		75.96	7.41	68.55	
MW-3		75.95	7.01	68.94	
MW-4		76.17	7.56	68.61	
MW-1	10/28/99	73.79	5.05	68.74	S25°W i = 0.03
MW-2		75.96	8.09	67.87	
MW-3		75.95	7.89	68.06	
MW-4		76.17	9.25	66.92	
MW-1	01/26/00	73.79	2.30	71.49	S25°W i = 0.02
MW-2		75.96	4.97	70.99	
MW-3		75.95	4.76	71.19	
MW-4		76.17	3.84	72.33	
MW-1	08/24/04	73.79	4.88	68.91	S to SE i = 0.02 to 0.02
MW-2		75.96	8.12	67.84	
MW-3		75.95	8.08	67.87	
MW-4		76.17	8.91	67.26	
MW-5		73.38	4.25	69.13	
MW-6		74.00	4.43	69.57	
MW-7		76.10	6.84	69.26	
MW-8		79.70	8.58	71.12	
MW-9		74.91	5.52	69.39	
MW-10		75.04	6.73	68.31	
MW-1	11/09/04	73.79	3.79	70.00	SW i = 0.03
MW-2		75.96	6.96	69.00	
MW-3		75.95	6.64	69.31	
MW-4		76.17	7.79	68.38	
MW-5		73.38	3.46	69.92	
MW-6		74.00	3.65	70.35	
MW-7		76.10	5.59	70.51	
MW-8		79.70	8.09	71.61	
MW-9		74.91	4.24	70.67	
MW-10		75.04	5.92	69.12	
MW-11		74.35	3.74	70.61	

Note: MW-11 was surveyed to msl on November 15, 2004,

Table 6, Continued: Groundwater Flow Direction and Gradient
95 John Street, Tomales

Well #	Date	Top of Casing Elevation (feet > msl)	Depth to Groundwater (feet)	Water Level Elevation (feet > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	04/18/00	73.79	1.64	72.15	SW i = 0.003
MW-2		75.96	5.23	70.73	
MW-3		75.95	4.89	71.06	
MW-4		76.17	4.22	71.95	
MW-5		73.38	1.60	71.78	
MW-6		74.00	1.31	72.69	
MW-1	07/26/00	73.79	Well inaccessible		S30°W i = 0.02
MW-2		75.96	7.30	68.66	
MW-3		75.95	6.98	68.97	
MW-4		76.17	7.61	68.56	
MW-5		73.38	3.32	70.06	
MW-6		74.00	3.21	70.79	
MW-1	12/04/00	73.79	3.31	70.48	S30°W i = 0.02
MW-2		75.96	6.85	69.11	
MW-3		75.95	6.59	69.36	
MW-4		76.17	7.54	68.63	
MW-5		73.38	3.24	70.14	
MW-6		74.00	3.22	70.78	
MW-1	02/19/01	73.79	NM	NM	SW i = 0.01
MW-2		75.96	4.63	71.33	
MW-3		75.95	4.36	71.59	
MW-4		76.17	3.71	72.46	
MW-5		73.38	1.67	71.71	
MW-6		74.00	1.65	72.35	
MW-1	05/24/01	73.79	3.72	70.07	SW i = 0.003
MW-2		75.96	7.13	68.83	
MW-3		75.95	6.76	69.19	
MW-4		76.17	7.11	69.06	
MW-5		73.38	3.36	70.02	
MW-6		74.00	3.35	70.65	
MW-1	08/28/01	73.79	6.08	67.71	S40°W i = 0.02
MW-2		75.96	9.26	66.70	
MW-3		75.95	9.40	66.55	
MW-4		76.17	10.20	65.97	
MW-5		73.38	5.31	68.07	
MW-6		74.00	5.61	68.39	
MW-1	11/09/01	73.79	6.66	67.13	S40°E i = 0.02
MW-2		75.96	9.68	66.28	
MW-3		75.95	9.91	66.04	
MW-4		76.17	10.80	65.37	
MW-5		73.38	5.75	67.63	
MW-6		74.00	6.08	67.92	

Table 6, Continued: Groundwater Flow Direction and Gradient
95 John Street, Tomales

Well #	Date	Top of Casing Elevation (feet > msl)	Depth to Groundwater (feet)	Water Level Elevation (feet > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	02/08/02	73.79	NM	NM	S40°W i = 0.03
MW-2		75.96	5.00	70.96	
MW-3		75.95	4.81	91.14	
MW-4		76.17	4.12	72.05	
MW-5		73.38	1.21	72.17	
MW-6		74.00	1.00	73.00	
MW-1	05/10/02	73.79	Well inaccessible		S55°W i = 0.02
MW-2		75.96	6.39	69.57	
MW-3		75.95	5.95	70.00	
MW-4		76.17	5.18	70.99	
MW-5		73.38	2.25	71.13	
MW-6		74.00	2.21	71.79	
MW-1	08/07/02	73.79	Well inaccessible		S25°W i = 0.01
MW-2		75.96	7.95	68.01	
MW-3		75.95	7.84	68.11	
MW-4		76.17	8.41	67.76	
MW-5		73.38	4.16	69.22	
MW-6		74.00	4.40	69.60	
MW-1	11/14/02	73.79	3.71	70.08	Southwest i = 0.01
MW-2		75.96	6.48	69.48	
MW-3		75.95	6.22	69.73	
MW-4		76.17	7.74	68.43	
MW-5		73.38	3.38	70.00	
MW-6		74.00	3.51	70.49	
MW-1	02/07/03	73.79	1.42	72.37	SSW i = 0.03
MW-2		75.96	5.61	70.35	
MW-3		75.95	5.34	70.61	
MW-4		76.17	4.61	71.56	
MW-5		73.38	1.70	71.68	
MW-6		74.00	1.52	72.48	
MW-1	05/12/03	73.79	1.83	71.96	S to SW i = 0.03
MW-2		75.96	5.47	70.49	
MW-3		75.95	5.20	70.75	
MW-4		76.17	4.40	71.77	
MW-5		73.38	1.65	71.73	
MW-6		74.00	1.43	72.57	
MW-1	08/22/03	73.79	3.97	69.82	S to SW i = 0.04
MW-2		75.96	7.55	68.41	
MW-3		75.95	7.39	68.56	
MW-4		76.17	8.10	68.07	
MW-5		73.38	3.57	69.81	
MW-6		74.00	3.65	70.35	

Table 6, Continued: Groundwater Flow Direction and Gradient
95 John Street, Tomales

Well #	Date	Top of Casing Elevation (feet > msl)	Depth to Groundwater (feet)	Water Level Elevation (feet > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	12/15/03	73.79	1.55	72.24	S to SW i = 0.03
MW-2		75.96	5.05	70.91	
MW-3		75.95	4.58	71.37	
MW-4		76.17	4.43	71.74	
MW-5		73.38	1.99	71.39	
MW-6		74.00	1.75	72.25	
MW-1	12/18/03	73.79	1.60	72.19	S to SW i = 0.03
MW-2		75.96	4.57	71.39	
MW-3		75.95	5.08	70.87	
MW-4		76.17	5.54	70.63	
MW-5		73.38	1.79	71.59	
MW-6		74.00	1.75	72.25	
MW-1	01/22/04	73.79	1.55	72.24	Southwesterly i = 0.03
MW-2		75.96	5.98	69.68	
MW-3		75.95	5.18	70.77	
MW-4		76.17	4.43	71.74	
MW-5		73.38	1.48	71.90	
MW-6		74.00	1.19	72.81	
MW-7		76.10	2.70	73.40	
MW-8		79.70	3.40	76.30	
MW-9		74.91	1.26	73.65	
MW-10		75.04	4.21	70.83	
MW-1	06/01/04	73.79	3.41	70.65	S to SW i = 0.03 to 0.06
MW-2		75.96	6.86	69.10	
MW-3		75.95	6.42	69.53	
MW-4		76.17	6.32	69.85	
MW-5		73.38	2.86	70.52	
MW-6		74.00	2.92	71.08	
MW-7		76.10	4.58	71.52	
MW-8		79.70	6.06	73.64	
MW-9		74.91	3.35	71.56	
MW-10		75.04	5.43	69.61	

Note: MW-7 through MW-10 were surveyed to msl on January 21, 2004.

Table 7: Domestic Well Analytical Results
95 John Street, Tomales

ID	Date	TPH-g	B	T	E	X	MTBE
		---------- ☞g/L ----------					
10 First St. DW	01/26/00	ND	ND	ND	ND	ND	ND
	03/14/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
20 First St. DW	01/04/00	ND	ND	ND	ND	ND	ND
	03/14/03	Property owner not home					
	05/12/03	Property owner not home					
	08/22/03	Property owner not home					
	12/15/03	Property owner not home					
29 John St. DW*	01/26/00	ND	ND	ND	ND	ND	ND
	03/14/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
40 John St. DW**	01/26/00	ND	ND	ND	ND	ND	ND
	02/07/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
55 John St. DW	01/26/00	ND	ND	ND	ND	ND	ND
130 John St. DW	01/04/00	63[1]	ND	ND	ND	ND	ND
	03/14/03***	<50	<0.5	<0.5	<0.5	<1.5	<2.5
140 John St. DW	03/14/03****	<50	<0.5	<0.5	<0.5	<1.5	<2.5
145 John St. DW	01/26/00	ND	ND	ND	ND	ND	ND
	02/07/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
26950 Main St. DW	01/04/00	ND	ND	ND	ND	ND	ND
	03/14/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
27000 Main St. DW	01/26/00	ND	ND	ND	ND	ND	ND
	03/14/03	Property owner not home					
	05/12/03	Property owner not home					
	08/21/03	Property owner not home					
	12/15/03	Property owner not home					
27005 Main St. DW	03/14/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
DW-1A*****	11/14/02	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	02/07/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	05/12/03	<50	<0.3	<0.3	<0.5	<0.5	<1.0
	08/22/03	<50	<0.3	<0.3	<0.5	<0.5	<1.0
	12/18/03	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	06/01/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
	08/24/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5
DW-1B	02/04/04	<50	<0.5	<0.5	<0.5	<1.5	<2.5

* Same domestic well at 55 John Street.

** Same domestic well at 10 John Street.

*** Domestic well sample labeled DW-130B on March 14, 2003.

**** Domestic well sample labeled DW-130A on March 14, 2003.

***** Mistakenly labeled as DW-2 for February 7, 2003 sampling event.

[1] Likely the result of laboratory contamination or contamination in transport.

Note: DW-1A had previously been labeled as DW-1.

APPENDIX C

Draft Condition Of Payment

Underground Storage Tank Cleanup Fund
Pay for Performance Pilot Program
Condition of Payment

Claimant:	Elena Iacono Revocable Trust	(the Claimant)
Site Address:	95 John Street Tomales, California	(the Site)
Agency Overseeing Corrective Action:	California Regional Water Quality Control Board San Francisco Bay Region	(the Regulator)

1. Acceptance of Condition of Payment. This Condition of Payment and Attachments A through C set forth the terms and conditions by which the Claimant agrees to perform corrective action at the Site and the State Water Resources Control Board ("Board") agrees to accept the Claimant's Site into the Board's Pay for Performance pilot program and to reimburse the Claimant for such corrective action taken.

A. By signing this Condition of Payment, the Claimant agrees:

(1) to perform all corrective action within the Area of Concern, as defined in Figure 3, in accordance with this Condition of Payment and Attachments A through C;

(2) that the Claimant, on his or her own, or through the Claimant's consultant, has a reasonable understanding of all relevant site characteristics within the Area of Concern, including, but not limited to, physical, chemical, and hydrogeological characteristics, and the concentrations and distribution of chemicals present, to conclude that remediation of the Site pursuant to this Condition of Payment is appropriate;

(3) to bear all costs and expenses associated with any additional investigation of the Site that may be necessary to optimize a treatment system or to determine the cause of a failed treatment system, and that the Claimant shall not have a right of reimbursement from the Underground Storage Tank Cleanup Fund ("Fund") for such costs and expenses;

(4) that by entering into this Condition of Payment, the Claimant is not relieved of any legal obligations to remediate the Site in accordance with the Regulator's requirements, regardless of whether all Constituents of Concern ("COCs"), were identified during site characterization and all "Active Remediation Targets" were attained, as those terms are defined in Section 2; and

(5) that the Claimant's acceptance of this Condition of Payment does not waive the right of the Fund or any existing or future regulatory authority to take any action against the Claimant, including enforcement action, with respect to the Site.

B. The Fund has concluded that the reimbursement payments specified when the Claimant has attained the designated Remediation Milestones, as described in Sections 4 and 16, constitute reasonable and necessary costs for corrective action.

2. Active Remediation Targets. The Active Remediation Targets ("ARTs") are the concentrations to be attained for specified COCs and other requirements of this Condition of Payment, as further described in Attachment A, Section 2. The COCs and their respective concentrations that are to be attained are listed in Table 1 of Attachment B, "Payment Schedule." The attainment of ARTs does not guarantee that the Regulator will determine that Site closure is appropriate or that no further action is required. The Claimant may seek cost pre-approval from the Fund for any additional corrective action required by the Regulator not covered by this Condition of Payment. The Fund shall reimburse eligible costs incurred for such corrective action on a time-and-materials basis.

3. Payment Terms. The Claimant agrees that the total fixed price for this Condition of Payment is that price specified in Attachment B, Section 1. The Fund shall make payments to the Claimant when the Fund, after consultation with the Regulator, has determined that the Remediation Milestones described in Section 4 have been attained. Remediation Milestone Payments shall be made pursuant to the schedule described in Section 16.

4. Remediation Milestone. "Remediation Milestone" means that a specified reduction in the concentrations of COCs from their baseline concentrations has been attained in designated monitoring wells through corrective action. The reduction is expressed as a percentage of the total reduction required by this Condition of Payment. The procedure for calculating the attainment of a Remediation Milestone is shown in the example provided in Attachment C. The baseline concentrations that comprise the Baseline Data and the designated monitoring wells are further described in Sections 5, 8, and 9. The Fund agrees to authorize payments in accordance with the procedures set forth in Section 16. If the Fund, after consultation with the Regulator, determines that a Remediation Milestone has been attained, then the Fund will reimburse the Claimant the percentage of the total fixed price, described in Section 3, which corresponds with the Remediation Milestone attained. If the Fund, after consultation with the Regulator, concludes that a Remediation Milestone has not been attained, then the Claimant shall not submit an invoice for that Remediation Milestone until the Claimant has demonstrated attainment to the satisfaction of the Fund. The Claimant may request the Fund Manager or the Division Chief to review any Fund decision of non-attainment of a Remediation Milestone by following the decision review procedures set forth in Article 5 of the Fund regulations.

5. Baseline Data. The Baseline Data for this Condition of Payment shall consist of the results of a Baseline Sampling Event of the wells identified in Attachment A, Section 3. The Baseline Sampling Event shall be conducted to determine the baseline concentrations of the COCs. The Baseline Sampling Event shall be conducted no more than thirty (30) days after the Claimant's acceptance of this Condition of Payment. All sampling and sample handling shall be conducted in accordance with the directives issued by the Regulator. Split sampling, as described in Section 11, is required for this Baseline Sampling Event. The Claimant's results from the Baseline Sampling Event shall be provided to the Regulator and the Fund within fifteen (15) days of the Baseline Sampling Event. The Baseline Sampling Report shall contain the information described in Attachment A, Section 1.A. As explained further in Section 6, the Baseline Data shall be approved by the Fund, after consultation with the Regulator, before startup of the remediation system. Alternatively, if the remediation system

is already operating, then the Baseline Data shall be approved by the Fund, after consultation with the Regulator, before this project converts to a Pay For Performance project. If more than ninety (90) days have elapsed between the date of the Baseline Sampling Event and the remediation system startup, another Baseline Sampling Event must be scheduled and conducted before system startup. Split sampling is also required for this additional Baseline Sampling Event. However, the Fund, after consultation with the Regulator, may waive the requirement to conduct another Baseline Sampling Event. The Baseline Data described in this Section are to be distinguished from any baseline data that were obtained before the Claimant accepted this Condition of Payment. Such data obtained prior to acceptance of this Condition of Payment is identified hereinafter as "Pre-acceptance Baseline Data".

6. Start Work Notice.

A. After the Fund and the Regulator have received the Claimant's Baseline Data, the Fund, after consultation with the Regulator, shall have the right, if exercised within fifteen (15) days of receipt of these data, to contest the Baseline Data, the timing of the Baseline Sampling Event, and/or the sampling method used. At this time the Regulator or the Fund may also decide to change the wells designated as Key or Perimeter Monitoring Wells, as provided in Sections 8 and 9, respectively.

B. The Fund, after consultation with the Regulator, shall also have the right to require an additional round of split sampling, as prescribed by Section 11, if the results of the split sampling show a concentration difference of 100 percent or greater between the split samples when comparing the "sum of the COCs" for the wells sampled in the Baseline Sampling Event. (The method for calculating the "sum of the COCs" is described in Attachment C.) If an additional round of split sampling is required, and this additional round also shows a concentration difference of 100 percent or greater, then the Fund, after consultation with the Regulator, may require the Claimant to perform another Baseline Sampling Event. The Fund shall reimburse the Claimant on a time-and-materials basis for the eligible costs incurred in conducting any additional round of split sampling or Baseline Sampling Event.

C. If the Fund, after consultation with the Regulator, agrees with the accuracy of the Baseline Data, including the reliability thereof, then the Fund will issue a "Start Work Notice" to the Claimant. If the Fund, after consultation with the Regulator, does not agree, then the Fund shall informally meet with the Claimant in a good faith attempt to address the Fund's concerns. In the event such concerns cannot be satisfied, the Fund may terminate this Condition of Payment pursuant to Section 7.E.

D. Unless the Fund and the Claimant agree upon other terms and conditions in writing, eligible remediation activities relating to the Scope of Work described in Section 1 of Attachment A that are incurred during Baseline Sampling and after the issuance of the Start Work Notice shall be reimbursed or paid pursuant to the terms of this Condition of Payment.

7. Termination

A. The Fund may renegotiate or terminate this Condition of Payment if a comparison of the Pre-acceptance Baseline Data and the Baseline Data of the Key Monitoring Wells shows that the sum of the COCs (identified in Table 1 of Attachment B) from these wells has **decreased** fifty (50) percent or more. Alternatively, the

Fund may terminate this Condition of Payment if the Baseline Data of the Key and Perimeter Monitoring Wells show that the COC concentrations of each well are at or below their respective ARTs.

B. The Claimant may renegotiate or terminate this Condition of Payment if a comparison between the Pre-acceptance Baseline Data and the Baseline Data of the Key Monitoring Wells shows that the sum of the COCs (identified in Table 1 of Attachment B) from these wells has **increased** fifty (50) percent or more.

C. If the Termination provision described in Subsection A or B above is invoked, the Fund's reimbursement responsibility under this Condition of Payment shall be to pay for the eligible costs of any Baseline Sampling Event conducted and any eligible costs associated with this event. Such costs shall be paid on a time-and-materials basis.

D. If there is evidence of a new release or migration of off-site contamination onto the Site, then the Fund, after consultation with the Regulator, shall informally meet with the Claimant to discuss this alleged change in Site conditions. If the Fund, after consultation with the Regulator, agrees that Site conditions have changed in this manner, then the Fund and the Claimant may terminate or renegotiate this Condition of Payment. If the Fund, after consultation with the Regulator, does not agree with the Claimant that Site conditions have changed, then the Claimant shall have the right to request a Fund Manager or Division Chief decision pursuant to the procedures set forth in Article 5 of the Fund Regulation. Failing agreement under that procedure, the Claimant may terminate this Condition of Payment. If the Condition of Payment is terminated under this provision, the Fund shall reimburse the Claimant for all eligible costs incurred to date.

E. The Fund also reserves its right to unilaterally terminate this Condition of Payment for good cause shown upon providing fifteen (15) days' written notice to the Claimant and the Regulator and detailing the cause(s) for its proposed termination. During the notice period, the Fund, after consultation with the Regulator, shall informally meet with the Claimant in a good faith attempt to address the cause(s). The notice period may be extended by mutual agreement of the Fund and the Claimant. If the cause(s) are not addressed to the satisfaction of the Fund before expiration of the original or extended (if applicable) notice period, then the proposed termination by the Fund becomes effective at that time. The Fund reserves the right to determine whether to reimburse the Claimant for any costs incurred up to the date of termination. Its reimbursement determination shall depend on the cause(s) for termination, including but not limited to, the Claimant's malfeasance or nonfeasance to comply with the terms of this Condition of Payment, and any intentional or negligent acts or omissions committed by the Claimant that the Fund has determined are contrary to law or this Condition of Payment.

F. The Fund and the Claimant each have the right to terminate or renegotiate this Condition of Payment if an event occurs that is not within the control of the Claimant, who is affected by such event and who could not, by reasonable diligence, have avoided the event. Such an event shall be considered a "Force Majeure" event, and shall include, but not be limited to, the following: fire, flood, explosion, act of God, act of a public enemy, war, blockade, public riot, or similar catastrophe. However, before the right to terminate or renegotiate this Condition of Payment may be exercised, the Fund shall first meet with the Claimant in a good faith attempt to address the consequences of such an

event. If it is decided to terminate this Condition of Payment, the Fund shall determine which costs incurred to date by Claimant shall be eligible for reimbursement based on Claimant's submittal of such costs for payment. If it is decided to renegotiate this Condition of Payment, the Payment Schedule described in Attachment B shall be amended in writing to reflect the renegotiation's outcome. Such amendment shall be deemed a part of this Condition of Payment and is hereby incorporated by this reference.

8. Key Monitoring Wells. The monitoring wells that are to be used to monitor the progress of the reduction in the concentrations of the COCs are identified in Attachment A, Section 4, as the "Key Monitoring Wells." Following review of the Baseline Data, the Regulator or the Fund may decide to change the wells designated as Key Monitoring Wells by requiring new and/or different monitoring wells to be installed and sampled as Key Monitoring Wells. The Fund shall reimburse the Claimant on a time-and-materials basis for the eligible costs for installing any such additional monitoring wells and conducting the associated sampling and analysis. If the Claimant disagrees with the Regulator's or the Fund's decision, the Claimant shall have the right to request a Fund Manager or Division Chief decision pursuant to the procedures set forth in Article 5 of the Fund Regulations.

9. Perimeter Monitoring Wells. The monitoring wells that are to be used to evaluate the perimeter groundwater conditions within the Area of Concern are identified in Attachment A, Section 5, as the "Perimeter Monitoring Wells." Following review of the Baseline Data, the Regulator or the Fund may decide to change the wells designated as Perimeter Monitoring Wells by requiring new and/or different monitoring wells to be installed and sampled as Perimeter Monitoring Wells. The Fund shall reimburse the Claimant on a time-and-materials basis for the eligible costs for installing any such additional monitoring wells and conducting the associated sampling and analysis. If the Claimant disagrees with the Regulator's or the Fund's decision, the Claimant shall have the right to request a Fund Manager or Division Chief decision pursuant to the procedures set forth in Article 5 of the Fund Regulations.

10. Adequacy of Monitoring Wells. Following issuance of a Start Work Notice, if the Regulator or the Fund concludes that one or more of the Key or Perimeter Monitoring Wells is unusable (e.g., submerged well screen, no water in well, well silted in or damaged, or is otherwise unusable), then the Regulator or the Fund may require the installation and sampling of one or more replacement monitoring wells. The replacement monitoring wells shall be installed as closely as possible to the monitoring wells being replaced, designated as replacement Key or Perimeter Monitoring Wells, and included in their respective monitoring well categories. The Fund shall reimburse the Claimant on a time-and-materials basis for the eligible costs for installing any such additional replacement monitoring wells and conducting the associated sampling and analysis.

11. Split Samples. The Claimant shall provide a minimum of seven (7) days' written notice to the Fund and the Regulator before conducting any sampling event proposed for the development of the Baseline Data or the evaluation of the attainment of Remediation Milestones for purposes of Remediation Milestone payments. Such notice shall be provided to enable the Regulator to conduct split sampling. If split samples are taken, and the results indicate different concentration levels for any COC in one or more monitoring wells sampled, then the samples with the higher concentration levels shall be used. However, such higher concentration samples shall not be used if the sum of the COCs for the wells sampled shows a difference of 100 percent or greater between the split samples. For example, if the sum of the

BTEX COCs for the wells sampled is 4500 for one split sample and 9000 or greater for the other split sample, then a second round of split sampling must be performed. The Regulator shall forward to the Claimant the invoices for all split sample work for payment. The eligible costs for split sample work that exceeds the scope of work included in the negotiated fixed price for this Condition of Payment shall be paid by the Fund on a time-and-materials basis.

12. Verification Sampling. The Fund shall have fifteen (15) days from receipt of the 100% Remediation Milestone Attained report results (as described in Section 16.E.) to approve the payment request. However, the Regulator may require the installation and sampling of a reasonable number of additional monitoring wells and/or soil borings to confirm attainment of the 100% Remediation Milestone. If such additional wells and/or soil borings are required, the Fund, after consultation with the Regulator, shall have fifteen (15) days from the receipt of the sampling results from these additional wells and/or soil borings to approve the 100% Remediation Milestone Attained payment. This Condition of Payment includes the cost for installation of one additional well. The Fund shall reimburse the Claimant on a time-and-materials basis for the eligible costs for installing any additional monitoring wells and/or soil borings and conducting the associated sampling and analysis. In either case, the 100% Remediation Milestone Attained payment under this Condition of Payment shall not be payable until the results from all monitoring wells confirm that the concentrations for the COCs are at or below their respective ARTs for each and every monitoring well within the Area of Concern.

13. Laboratory Analysis. All soil and groundwater samples must be analyzed by a California certified laboratory that is not affiliated with the Claimant or the Claimant's consultant.

14. Finality of Condition of Payment; Fixed Price; Price Exception. This Condition of Payment shall be final and shall not be terminated except pursuant to the terms and conditions described in Section 7 above. In addition, the total corrective action fixed price identified in Attachment B, Section 1, shall not be increased except where one or more of the situations described in Subsections B., D., and/or F. of Section 7 is present. In this event the procedures applicable to those subsections shall be followed. In all other situations the fixed price shall not be increased. These other situations include, but are not limited to: unanticipated iron fouling of a system, inadequate winterization, well clogging because of biological activity or sedimentation, increased costs, loss of utilities, and modification to the system to meet the ARTs.

15. Changes in Constituent Levels. The Claimant shall notify the Fund and the Regulator telephonically, with confirmation in writing, as soon as practicable after the Claimant becomes aware of any significant change in the concentrations of the COCs. For purposes of this Section, "any significant change" includes, but is not limited to, the following:

A. The sum total of the concentrations of all COCs has increased more than thirty (30) percent from the last measured concentrations in any well.

B. Unanticipated measurable free product is found in any monitoring well.

C. The remediation system has been shutdown for more than a week regardless of the cause.

D. A significantly increased risk of impact or an actual impact to sensitive receptors, such as elevated volatile organic compounds in the ambient air, in water distribution lines, or in water supply wells, has occurred.

16. Performance Criteria and Payment Schedule. Payments shall be made when the Fund determines that the performance criteria described below have been attained. The Claimant's written payment request to the Fund must include: (1) a report detailing the attainment of a Remediation Milestone described below and (2) a letter from the Regulator assessing whether such performance criteria have been satisfied.

A. Start-up Milestone: The Fund shall reimburse the Claimant the percentage set forth in Attachment B, Section 2.A., when all of the following criteria have been satisfied and reported in the "Start-up Milestone Report."

(1) The remediation system has been installed and is properly operating (i.e., operating in accordance with design specifications). The Claimant shall provide the Regulator with forty-eight (48) hours' written notice to observe the system. Once the system has been observed by the Regulator to be properly operating, the Claimant shall continue to operate the system at all times until remediation is complete, unless the system is required to be shutdown. In this event, the Claimant shall document the amount of system downtime and the cause(s) of the shutdown, as required by Section 1.F.(3)(b) of Attachment A.

(2) As specified in Section 3 of Attachment A, groundwater samples have been taken from each Key Monitoring Well and lab results for these samples have been submitted for inclusion in the Baseline Sampling Event.

(3) The concentrations of the COCs in the groundwater samples taken from each Key Monitoring Well have been calculated for inclusion in the Baseline Data.

B. 25% Milestone: The Fund shall reimburse the Claimant the percentage set forth in Attachment B, Section 2.B., when there has been attained a 25% reduction in the sum of the COCs for BTEX from the baseline concentrations in the Key Monitoring Wells. This reduction shall be documented in the "25% Milestone Report." **Note:** Any of the quarterly monitoring reports described in this Section 16 may serve as a Remediation Milestone report if identified as such.

C. 50% Milestone: The Fund shall reimburse the Claimant the additional percentage set forth in Attachment B, Section 2.C., when there has been attained a 50% reduction in the sum of the COCs for BTEX from the baseline concentrations in the Key Monitoring Wells. This reduction shall be documented in the "50% Milestone Report."

D. 75% Milestone: The Fund shall reimburse the Claimant the additional percentage set forth in Attachment B, Section 2.D., when there has been attained a 75% reduction in the sum of the COCs for BTEX from the baseline concentrations in the Key Monitoring Wells. This reduction shall be documented in the "75% Milestone Report."

E. 100% Milestone Attained: The Fund shall reimburse the Claimant the additional percentage set forth in Attachment B, Section 2.E., when the ARTs have been attained in each and every monitoring well within the Area of Concern, except as otherwise provided in Section 12. The attainment of the ARTs shall be documented in the "100% Milestone Attained Report."

F. 100% Milestone Maintained: The Fund shall reimburse the Claimant the remaining percentage set forth in Attachment B, Section 2.F., when the ARTs have been maintained in each and every monitoring well within the Area of Concern for a period of four (4) consecutive, quarterly sampling rounds after the remediation system has been shut down. If these levels are not maintained, the remediation system must be re-started and operated until the ARTs are once again attained. Once the ARTs have again been attained, the remediation system shall be shut down and each monitoring well within the Area of Concern shall be monitored for four (4) more consecutive, quarterly sampling rounds. If the ARTs are again not able to be maintained following shutdown of the remediation system, the Claimant forfeits all rights to payment of this remaining percentage. Maintaining the ARTs for each monitoring well for the applicable time periods specified above shall be documented in the "100% Milestone Maintained Report."

17. Entire Understanding. This Condition of Payment and Attachments A through C contain the entire understanding between the Fund and the Claimant with respect to this subject matter and supersede all prior or contemporaneous written or oral negotiations and understandings. This Condition of Payment may be amended only in a writing signed by the Claimant and approved by the Fund.

18. Authority to Sign Condition of Payment. The person signing this Condition of Payment represents and warrants that he/she has the express authority, right, and power to sign this Condition of Payment.

_____ _____

Claimant Date

Claim No. 12995

ATTACHMENT A

REGULATORY REQUIREMENTS

1. Scope of Work: This Pay-for-Performance Condition of Payment applies to 95 John Street Tomales. California and the following scope of work:

A. Baseline Sampling Report: The Baseline Sampling Report shall document baseline conditions to be used to determine Remediation Milestones. The Baseline Sampling Report shall include the following:

(1) A brief written discussion of sampling methodology.

(2) A table showing the sampling results from all Key and Perimeter Monitoring Wells based on historical data. The Active Remediation Targets ("ARTs") should be referenced in this table.

(3) A table showing the summation of the concentrations of all Constituents of Concern ("COCs") identified in Table 1 of Attachment B that are in each monitoring well.

(4) A figure showing the location of all Key and Perimeter Monitoring Wells.

(5) Analytical reports and field data sheets.

Note: The tables to be included in this report can be presented in any format as long as all of the requested data are presented.

B. Remediation System Design, Construction, and Operation: The remediation system shall be designed, constructed, and operated to achieve reduction of groundwater contamination to levels at or below the ARTs specified in Attachment B, Table 1.

C. Remediation System Startup and As-built Report: The Remediation System Start-up and As-built Report shall include the following:

(1) A brief written summary of the field activities performed to install and start-up the remedial system. This discussion shall include a description of all deviations from the remedial system design as presented in the approved Corrective Action Plan.

(2) As-Built Drawings.

(3) A table presenting the remedial system operation data collected during the start-up period. This table should include sparge-air flow rates, wells in use, and any other data collected which will be used in any calculations presented.

(5) A table presenting changes in concentrations for Total Petroleum Hydrocarbons as Gasoline (TPHg) and benzene. This table should include concentration changes observed during the monitoring period and cumulative changes during the monitoring period.

(6) All field data sheets and analytical reports shall be included.

Note: The above tables can be presented in any format or combination as long as all of the necessary information is presented.

D. Monthly Operation and Maintenance (O&M) of Remediation System:

(1) O&M monitoring shall be consistent with the permit requirements of Sonoma County Division of Environmental Health and all other legally required permits for the operation and maintenance of the remediation system.

E. Quarterly Sampling of all Monitoring Wells:

(1) Except for the last monitoring round before final payment is requested, with prior approval of the Regulator, a monitoring well can be eliminated from the monitoring program if the COCs are detected at levels below the corresponding ARTs in groundwater samples for four consecutive monitoring rounds. All monitoring wells must be sampled in the last monitoring round before final payment may be requested.

(2) Quarterly sampling shall be conducted for all Key Monitoring Wells. Quarterly sampling shall be conducted for Perimeter Monitoring Wells until total concentrations of all COCs have been reduced by 50 % from the baseline concentrations. If a Perimeter Monitoring Well meets this criterion and the Regulator approves, then its monitoring frequency can be reduced to twice a year in spring and fall.

(3) Groundwater samples shall be analyzed for TPHg by USEPA method 8015 and for BTEX by USEPA method 8020.

Please be aware that this Condition of Payment does not supersede state laws that require electronic data submittals.

F. O&M and Monitoring Reports:

(1) Reports describing O&M and monitoring shall comply with all applicable requirements of all regulatory agencies.

(2) A copy of any reports submitted to all regulatory agencies shall be provided to the Regulator.

(3) O&M and Monitoring Reports shall contain the following:

(a) A brief description of the field activities that occurred during the previous quarter.

(b) The amount of remedial system downtime, if any, including the cause(s) of the shutdowns.

(c) Any significant modifications or additions made to the remedial system and the reasons for the changes. The As-Built Drawings shall be modified accordingly.

(d) Figures showing the site plan, groundwater gradient maps, Rose diagrams, all onsite and off-site monitoring and remediation wells, and iso-concentration contours for TPHg and benzene.

(e) Time-Trend plots for TPHg and benzene in all monitoring wells. These plots shall indicate the ARTs.

(f) A Time-Trend plot of Total COCs in the wells used to generate the Baseline Data. The baseline concentrations shall be included on the plot.

(g) A table presenting the soil vapor sampling results. ***(not applicable*)**

(h) A table presenting the well construction details, depth to groundwater, groundwater elevation, an assessment of whether or not the well screen is submerged and analytical data for each monitoring well..

(j) A table showing the influent and effluent analytical data for the soil and/or groundwater treatment. ***(not applicable)***

(k) A table presenting the remedial system operation data collected during the startup period. This table should include sparge-air flow rates, wells in use and any data collected which are used for any calculations presented.

(l) A table presenting changes in concentrations for Total Petroleum Hydrocarbons as Gasoline (TPHg) and benzene. This table should include concentration changes observed during the monitoring period and cumulative changes during the monitoring period.

(m) All field data sheets and analytical reports shall be included.

Note: The above tables can be presented in any format or combination as long as all of the necessary information is presented. All tables must contain all historical data.

(4) The O&M and Monitoring Reports shall be prepared quarterly and submitted to the Fund and Regulator within 45 days of the sampling event.

2. Active Remediation Targets: The Active Remediation Targets in this Condition of Payment are described below.

A. The ARTs prescribed in Attachment B, Table 1, have been maintained in all monitoring wells for the time periods prescribed in the Condition of Payment.

B. No free product is present in any Key Monitoring Well. If free product is discovered in any Key Monitoring Well, the Fund and Regulator, and other appropriate regulatory agencies, shall be notified within 24 hours.

C. Surface waters at the Site have not been impacted. If a surface water impact is discovered, the Fund and Regulator, and other appropriate regulatory agencies, shall be notified within 24 hours.

3. Baseline Data: Baseline Concentrations shall be established by averaging results from all Monitoring wells for the last four (4) quarterly monitoring events for the COCs identified in Attachment B, Table 1. Detection limits for COCs shall be set at or below the corresponding ARTs. All sampling and sample handling shall be conducted in accordance with the directives issued by the Regulator and standard industry practices of quality assurance and quality control.

4. Key Monitoring Wells: Key Monitoring Wells to assess the progress of the reduction of the concentrations of COCs shall consist of wells MW-1, MW-5 through MW-7 and MW-11. Groundwater samples shall be analyzed for the COCs identified in Table 1 using the methods directed by the Regulator. These wells are subject to change by mutual written agreement between the Claimant, the Regulator and the Fund after the results of the Baseline Sampling Event are available. Any dispute regarding designation of the Key Monitoring Wells must be resolved prior to any payment being made under this Condition of Payment.

5. Perimeter Monitoring Wells: Perimeter Monitoring Wells shall consist of wells MW-2 through MW-4 and MW-8 through MW-10. These wells shall be analyzed for the COCs identified in Table 1 using the methods directed by the Regulator. These wells are subject to change by mutual written agreement between the Claimant, the Regulator and the Fund after the results of the Baseline Sampling are available. Any dispute regarding designation of the Perimeter Monitoring Wells must be resolved prior to any payment being made under this Condition of Payment.

6. Constituent Reduction Monitoring: Water sample laboratory data used to support performance criteria for payment shall show the COCs that were present during the Baseline Sampling Event. Samples must be analyzed using methods directed by the Regulator. Remediation Milestone reports shall include tables showing the concentrations of the COCs in the monitoring wells sampled and graphs showing the total reduction in the concentrations of the COCs from the baseline concentrations. The data graphed and the method of calculation shall also be provided.

7. Site Closure: At any time during the execution of this Condition of Payment, if the concentrations of the COCs are reduced to a level deemed acceptable for closure by the Regulator, the Fund shall conclude that the 100% Milestone Maintained Remediation Milestone, described in Section 16.F. of the Condition of Payment, has been achieved. The remaining payment shall be reimbursed upon submission to the Fund of a copy of the Regulator's closure letter and a summary of site conditions, including soil and groundwater quality data, existing as of the date of the closure letter.

ATTACHMENT B

PAYMENT SCHEDULE

1. Fixed Price: The Claimant agrees that the total corrective action fixed price to be paid the Claimant to achieve the Active Remediation Targets specified below is:

2. Remediation Milestone Payments: Payments shall be made when the Fund determines that the Remediation Milestones specified below have been attained. The Payment Schedule, as described in the Subsections of Section 16 in the Condition of Payment and referenced below, and the corresponding percentages of the total price that will be reimbursed to the Claimant, are as follows:

Subsection	Remediation Milestone	Payment (%)
A. 16.A.	Start-up	35
B. 16.B.	25%	15
C. 16.C.	50%	15
D. 16.D.	75%	20
E. 16.E.	100% attained	5
F. 16.F.	100% maintained	10

Table 1: Constituents of Concern ("COCs") Active Remediation Targets

Chemical Parameter	Active Remediation Targets (ARTs) (ug/L)
Benzene	1.0
Ethyl Benzene	30
Toluene	40
Xylene	13
TPH -gasoline	100

Attachment C
Calculation of Attainment of Remediation Milestones

After the analytical results from the Baseline Sampling Event have been accepted, calculation will be prepared and submitted to Sonoma County and the Fund that identify the concentrations required to attain the 25, 50, 75 and 100 percent remediation milestones. The calculation will be prepared in accordance with the *Sample Calculation* shown in Attachment C of the June 17, 2003 Version of the UST Cleanup Fund Pay for Performance Condition of Payment.