

# Appendix U

## Natural Attenuation Evaluation

# **EVALUATION OF NATURAL ATTENUATION**

**OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

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## 1.0 INTRODUCTION

This Appendix presents the results of an evaluation of natural attenuation (NA) of groundwater impacted by volatile organic compounds (VOCs) and metals, at the Occidental Chemical Corporation's (OCC's) Alexander Avenue Site in Tacoma, Washington (Site). The purpose of the evaluation was to determine the types of natural attenuation processes occurring at the Site, the Site-specific conditions that effect these processes, and the extent to which these processes affect the migration of COCs.

The NA evaluation was completed in general accordance with the United States Environmental Protection Agency's (U.S. EPA's) "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water" (Technical Protocol) (U.S. EPA, 1998) and taking into consideration the U.S. EPA's "Monitored Natural Attenuation of Inorganic Contaminants in Ground Water Volume 1 and 2" (Framework Documents) (U.S. EPA, 2007). The NA evaluation consisted of evaluating the natural attenuation indicator parameter data, in conjunction with the detected concentrations of volatile organic compounds (VOCs) and metals in groundwater, for evidence supporting the occurrence of biodegradation processes. A weight-of-evidence approach was applied where converging lines of evidence are identified to demonstrate the occurrence of natural attenuation processes. This approach was followed as the Technical Protocol formed the basis for the identification of data requirements to be filled during Site characterization. Other more recent techniques to confirm NA are available, but the data required for their use was not collected during Site investigations (e.g., stable isotopes).

This report is organized as follows:

- Section 1.0 Introduction  
Presents an introduction to the NA evaluation presented
- Section 2.0 Background on Natural Attenuation Processes  
Presents relevant background on natural attenuation processes, and in particular, on biodegradation processes
- Section 3.0 Site Conditions  
Presents a description of the regional and Site-specific hydrogeologic conditions and presents a description of the nature and extent of groundwater impact in the Site

- Section 4.0 Natural Attenuation Data Set  
Presents the natural attenuation parameter data collected at the Site, in conjunction with the detected VOCs
- Section 5.0 Natural Attenuation Evaluation  
Presents an evaluation of available Site data for evidence supporting the occurrence of natural attenuation processes and, in particular, biodegradation processes
- Section 6.0 Summary  
Presents a summary of the NA evaluation presented herein
- Section 7.0 References  
Presents a list of all references cited in this report

## **2.0 BACKGROUND ON NATURAL ATTENUATION PROCESSES**

Natural attenuation is the term used to refer to all of the naturally-occurring processes that control the fate of contaminants in soil and groundwater, and the recognition that these processes can act to naturally contain and remediate such contamination. Natural attenuation processes are those that effectively reduce contaminant mass and contaminant concentrations in soil and groundwater. Each group of contaminants of concern (COCs) will be evaluated with reference to the applicable processes of natural attenuation and the extent to which natural attenuation may impact contaminant migration. The COCs for the Site are CVOCs, SVOCs, PCBs, dioxins, furans, a high-density plume (anthropogenic density plume; ADP) and a high pH plume.

The processes that control the natural attenuation of compounds in groundwater can be classified into two categories: non-destructive and destructive. Non-destructive processes result in reductions in dissolved concentrations of compounds over distance or time; destructive processes destroy the compound's structure resulting in reductions in compound mass.

Destructive natural attenuation processes consist of biological degradation (where naturally occurring microorganisms indigenous to the subsurface degrade contaminant compounds into less toxic or nontoxic compounds), and chemical degradation (where contaminants chemically degrade into less toxic or nontoxic compounds). Non-destructive natural attenuation processes result in a reduction in contaminant concentrations. Non-destructive natural attenuation processes consist of advection (contaminant spreading due to groundwater flow), dispersion (contaminant spreading due to the tortuous flow of groundwater in porous or fractured media),

sorption (contaminant sorption from groundwater onto soil particles), diffusion (contaminant spreading due to chemical concentration gradients - including diffusion from groundwater into rock or clay matrix), dilution (mixing with uncontaminated groundwater or surface water), and volatilization (contaminant volatilization to soil gas and/or the atmosphere). In the case of metals, natural attenuation processes also include precipitation (formation of solid mineral phases that are removed from the groundwater).

Destructive natural attenuation occurs through degradation. Although degradation occurs by both non-biological (abiotic) and biological (biotic) mechanisms, abiotic degradation rates are typically slow compared to those of biotic degradation. For SVOCS, VOCs, and other organic COCs, the most important natural attenuation process in the groundwater is biodegradation (biotic degradation). Through a series of degradation pathways, microorganisms present in the subsurface can ultimately degrade VOCs and some SVOCS and other COCs to nontoxic end products such as carbon dioxide, ethane, ethene, and water. PCBs, dioxins and furans are resistant to degradation and the process is slow and may not go to completion. The evaluation of natural attenuation processes occurring at a site includes an assessment of the potential production and accumulation of intermediate degradation products.

For metals, the most important natural attenuation mechanism is sorption to aquifer materials, followed by precipitation as minerals. The amount of sorption and the types of potential minerals depends on the site geochemical conditions and the properties of the individual metals.

A concentrated solution of sodium chloride (brine) forms a portion of the anthropogenic density plume (ADP). The only natural attenuation mechanisms applicable to this COC are non-destructive, mechanical processes: dispersion, diffusion and dilution.

A very high pH plume has been generated from on-Site caustic sources of sodium hydroxide and is generally coincident with the brine from the ADP. Hydroxide and silicate ions are the primary components, and degradation processes are not applicable to them. Attenuation may be accomplished naturally via mechanical processes and possibly by interactions with aquifer surfaces.

Further background on biodegradation and sorption processes is presented in Section 2.1 and 2.2, respectively.

## 2.1 BACKGROUND ON BIODEGRADATION PROCESSES

Organic COCs can be degraded via biodegradation processes. Biologically-mediated degradation reactions involve electron transfer, where the microorganisms gain energy for growth and reproduction by catalyzing oxidation-reduction (redox) reactions which require an electron donor (referred to as a primary substrate) and an electron acceptor. Sources of primary substrate are naturally occurring organic carbon, or anthropogenic carbon sources, such as petroleum hydrocarbon compounds or landfill leachate rich in organic matter. The preferred degradation pathway for a given COC is dependent upon the oxidation state of the COC, groundwater redox conditions, primary substrate availability, and the microbial population present in the subsurface. COCs may be degraded by serving as an electron donor that becomes oxidized, as an electron acceptor that becomes reduced, or COCs may be degraded through cometabolism which is an incidental reaction occurring as a result of microbial activity. VOCs undergo these processes; SVOCs, PCBs, dioxins and furans do also, but to various degrees. These three biodegradation processes are described further below:

- use as an electron donor, or primary substrate: this process involves the transfer of electrons either from less chlorinated COCs under aerobic groundwater conditions [e.g., vinyl chloride (VC)], or from petroleum hydrocarbon compounds under anaerobic groundwater conditions, which provides energy for microorganism growth and reproduction;
- use as an electron acceptor: this process involves a reductive dehalogenation (or reductive dechlorination) reaction called hydrogenolysis, occurring under anaerobic conditions where a chlorine atom from a chlorinated COC is replaced by a hydrogen atom producing more reduced and less chlorinated COC (Vogel et al., 1987). In addition to the reductive dechlorination reaction hydrogenolysis, some chlorinated COCs may degrade through a second type of reductive dechlorination referred to as dehaloelimination. Dehaloelimination is the process where two adjacent chlorine atoms are released simultaneously from the chlorinated COC. Reductive dechlorination will occur only if sufficient sources of primary substrate are available to sustain microbial activity; and
- cometabolism: this process involves the incidental degradation of a chlorinated COC catalyzed by an enzyme, or cofactor, that is fortuitously produced by microorganisms for other purposes. The microorganisms indirectly transform the chlorinated COC as they use either naturally occurring, or anthropogenic, carbon sources as a primary substrate for energy. The chlorinated COC serves neither as an electron acceptor nor a primary substrate and the reaction is of no benefit to the microorganisms.

At a given site, one or all of these biodegradation processes may be occurring, although for chlorinated VOCs, reductive dechlorination under anaerobic conditions appears to be the most prominent process. Reductive dechlorination can result in the complete reduction of more chlorinated VOCs to nontoxic end products such as ethane and ethene, provided sufficient primary substrate is available. Typical anaerobic degradation pathways for chlorinated VOCs, commonly detected in groundwater, through reductive dechlorination are presented on Figure 2.1.

Evaluating the distribution of naturally occurring electron acceptors can provide evidence of where and how biodegradation is occurring. Naturally occurring electron acceptors available in groundwater, in the order of those that release the greatest energy to those that release the least energy, are as follows: dissolved oxygen, nitrate, manganese and iron coatings on soil sediments, dissolved sulfate, and carbon dioxide. The sequential reduction of these electron acceptors occurs as groundwater becomes increasingly more reducing during the biodegradation of organic compounds. With the long-term presence of organic contaminants in groundwater, a sequence of redox zones of increasing redox potential will develop downgradient from a source area (Lyngkilde and Christensen, 1992a; Appelo and Postma, 1993). The sequence of these redox zones, in order of the closest to the farthest away from a source area, can be as follows:

1. methanogenic zone (carbon dioxide reduction to methane);
2. sulfidogenic zone (sulfate reduction to sulfide);
3. ferrogenic zone ( $\text{Fe}^{3+}$  reduction to  $\text{Fe}^{2+}$ );
4. manganogenic zone ( $\text{Mn}^{4+}$  reduction to  $\text{Mn}^{2+}$ );
5. nitrate-reducing zone (nitrate reduction to nitrite); and
6. aerobic zone (dissolved oxygen reduction to water).

The extent of each individual redox zone is site-specific, and will depend on substrate migration pathways, kinetics of redox processes, hydraulic retention times, and the availability of various electron acceptors in groundwater. Identifying the redox zones downgradient of a source area can provide strong evidence of the occurrence of biodegradation. The most rapid rates of reductive dechlorination, affecting the widest range of chlorinated COCs, occur under sulfate-reducing and methanogenic conditions (Bouwer, 1994). Under methanogenic conditions, the complete reduction of chlorinated VOCs, such as tetrachloroethene (PCE) or trichloroethene (TCE) to ethene and 1,1,1-trichloroethane (1,1,1-TCA) to ethane, has been observed in many field and laboratory studies (Vogel and McCarty, 1985; Belay and Daniels, 1987; and McCarty and Semprini, 1994).

A transition from anaerobic to aerobic conditions downgradient from a source area can play a significant role in the attenuation of chlorinated VOCs. In instances where reductive dechlorination of more chlorinated VOCs is not complete in the anaerobic zone and less chlorinated VOCs are produced, the less chlorinated VOCs can be degraded under aerobic conditions further downgradient of an anaerobic zone. Under aerobic conditions, less chlorinated VOCs, such as VC, 1,2-dichloroethene (1,2-DCE), and 1,2-DCA, can be used as primary substrates in biologically mediated redox reactions (Vogel, 1994). Cometabolism also can play a significant role in the degradation of chlorinated VOCs under aerobic conditions downgradient of an anaerobic zone. Where conditions are sufficiently anaerobic to create methanogenic conditions, methane is produced. Aerobic microorganisms downgradient of the anaerobic zone, called methanotrophs, will oxidize methane migrating from the anaerobic zone for growth and energy which facilitates the cometabolic degradation of many chlorinated VOCs including TCE (McCarty and Semprini, 1994).

Reducing conditions in groundwater often are associated with increased dissolved metals concentrations. When the groundwater becomes depleted of dissolved oxygen and nitrate, conditions become anaerobic where the reduction and subsequent dissolution of iron and manganese oxide coatings on soil sediments can occur. These reactions will result in the mobilization of ferrous iron ( $\text{Fe}^{2+}$ ) and dissolved manganese ( $\text{Mn}^{2+}$ ) in groundwater. In their oxidized state,  $\text{Fe}^{3+}$  and  $\text{Mn}^{4+}$  are practically insoluble at pH levels of 5 to 7, and dissolved concentrations are considered to represent the reduced species of  $\text{Fe}^{2+}$  and  $\text{Mn}^{2+}$  (Lyngkilde and Christensen, 1992a). The mobilization of manganese will begin prior to that of iron because dissolved manganese is more stable over a larger range of redox conditions than ferrous iron (Baedecker and Back, 1979). However, the concentration of dissolved iron in groundwater often is greater than that of manganese because soil sediments typically consist of a greater iron content (Hem, 1985).

### **2.1.1 BIODEGRADABILITY OF SITE COCS**

Microbial metabolism involves the utilization of carbon from an organic compound (the primary substrate) for microbial cell growth. As part of microbial respiration, electrons are transferred from the primary substrate (electron donor) to an available electron acceptor. This transfer of electrons is defined as a redox reaction. Energy derived from this transfer of electrons is utilized by soil microorganisms for cellular respiration. Measuring redox indicators in groundwater can indicate the level of microbial activity. Biodegradation of COCs can occur when they are used as primary substrate, as an electron acceptor, or incidentally via cometabolism. Biodegradation processes relevant to each COC are discussed in this section.

### **2.1.1.1 BIODEGRADABILITY OF CHLORINATED ETHENES**

PCE, TCE, cis-DCE, and VC are the chlorinated COCs primarily present in groundwater at the Site, both beneath the Waterway area and the upland areas at the Site. A brief discussion of the biodegradation of chlorinated ethenes and ethanes in general is presented below, with emphasis on PCE, TCE, cis-DCE, and VC biodegradation.

As stated above, biodegradation of chlorinated ethenes is mediated through a series of redox reactions, in which electrons are transferred between electron donors and electron acceptors. Biodegradation of chlorinated ethenes and ethanes occurs through any one of the following three mechanisms:

- i) the organic compound is used directly by microorganisms as an electron donor (i.e., primary substrate);
- ii) the organic compound is used directly by microorganisms as an electron acceptor; or
- iii) the organic compound undergoes biodegradation as a secondary reaction during microbial biodegradation of another organic compound.

#### **PCE and TCE Biodegradation**

PCE is the most oxidized of the chlorinated ethenes and is not susceptible to oxidation mechanisms (electron donor) for biodegradation (i.e., PCE cannot be used as a primary substrate) unless it is via a cometabolic pathway. However, reductive dechlorination is a fully documented pathway for biodegradation of PCE. Therefore, PCE is biologically recalcitrant under aerobic conditions and typically requires an anaerobic environment in order to undergo biodegradation. The reductive dechlorination pathways for chlorinated ethenes are summarized on Figure 2.1. This Figure includes indicators of the relative speed of the degradation process through each of the steps.

TCE also is highly oxidized and is typically not susceptible to oxidation reactions. TCE is mainly biodegraded by reductive dechlorination under anaerobic conditions. Although the main biodegradation mechanism for TCE is reductive dechlorination, TCE may, in some cases, undergo aerobic cometabolism resulting in partial dechlorination.

#### **cis-DCE and VC Biodegradation**

cis-DCE and VC (the most reduced chlorinated ethenes) are susceptible to both aerobic degradation (through oxidation) and anaerobic degradation (through oxidation or reduction).

cis-DCE and VC biodegradation has been documented to occur by each of the three principal biodegradation mechanisms (i.e., anaerobic, aerobic, and cometabolism).

VC is the most susceptible of the chlorinated ethenes to electron donor reactions. cis-DCE is also susceptible. Oxidation (also referred to as mineralization) of cis-DCE and VC is associated with the transformation of cis-DCE and VC to carbon dioxide, water, and chloride. Aerobic oxidation of cis-DCE and VC is characterized by a loss of mass and a decreasing molar ratio of cis-DCE and VC compared to that of other chlorinated ethenes.

cis-DCE and VC are the least susceptible to electron acceptor (i.e., reduction) reactions because they are the most reduced forms of the chlorinated ethenes; therefore, reductive dechlorination of cis-DCE and VC is slow relative to other degradation mechanisms. Reductive dechlorination of cis-DCE and VC has been documented in anaerobic environments, and is characterized by reductions in mass, increased concentrations of chloride ions, and production of daughter products, which are VC for cis-DCE and ethene for VC. The occurrence of reductive dechlorination relies on the presence of a primary substrate (i.e., electron donor). VC can also be oxidized under anaerobic conditions. The rate of oxidation can be greater than the reductive dechlorination rate (Suarez and Rifai, 1999).

#### **2.1.1.2 BIODEGRADABILITY OF SVOCs**

##### *Hexachlorobutadiene and Hexachlorobenzene*

Tabak et al. (1981) successfully conducted biodegradation of hexachlorobutadiene (HCBd), at concentrations of 5 to 10 mg/litre, using aerobic microorganisms from an inoculum from settled domestic waste water. Another study found that a bacterium can utilize HCBd as sole carbon and energy sources (Li et al., 2008). It is therefore concluded that some degradation of HCBd can occur under oxidizing conditions.

Studies have found that hexachlorobenzene (HCB) can undergo anaerobic reductive chlorination (Chang et al. 1996) (Adrian and Görtsch, 2002). Kengara et al. (2013) were able to enhanced HCB biodegradation using two anaerobic - aerobic cycles in model laboratory experiments.

Results for these SVOCs are based upon laboratory studies, and little is known about their degradation rates in the natural environment. These compounds are known to be strongly sorptive and persistent in the environment.



### **2.1.1.3 BIODEGRADABILITY OF DIOXINS, FURANS, AND PCBS**

Dioxins (the common name for polychlorinated dibenzo-para-dioxins) and furans (polychlorinated dibenzofurans) are two closely related groups of chemical byproducts. Both groups consist of chlorinated compounds that have a range of congeners (members of the same structural group with different configurations). Polychlorinated biphenyls (PCBs) are similar in structure, containing multiple chloride ions. These compounds are generally strongly hydrophobic and will adsorb to organic matter in soils and sediments. They can persist for long periods of time in soil and sediments.

Bacterial degradation of dioxins, furans, and PCBs is possible but studies have shown it to be a very slow process. Biodegradation may be limited by the populations of organisms in the native soil and by the strong sorptive properties of some of the compounds. The ATSDR (1998) estimates that the half-life for dioxin/furans in surface soils may range from 1 to 3 years. These shorter half-lives occur in the near-surface because dioxins degrade naturally under UV light. However, for contaminants only a few inches below the surface, the half-life may be 10 to 12 years or more.

Biodegradation of PCBs may occur under aerobic or anaerobic conditions that will, theoretically, yield carbon dioxide and other innocuous compounds such as chlorine and water. PCBs are not readily bioavailable, however, as they tend to remain strongly adsorbed to the organic matter in soils and sediments. Biodegradation of PCBs is dependent upon the position of the chlorine atoms attached to the biphenyl molecule and the degree of chlorination. In general, higher chlorinated PCBs (five or more chlorine atoms) are more persistent and not easily biotransformed. Specific biodegradation processes that may alter PCBs include aerobic dechlorination, hydrolytic dehalogenation, and anaerobic reductive dechlorination. The heavier PCB congeners (tetra- and penta-) will generally biodegrade anaerobically, while the lighter congeners (mono-, di-, and tri-) will biodegrade aerobically as substrate or cometabolically (USEPA, 2003).

### **2.1.1.4 BIODEGRADABILITY OF OTHER ORGANIC COCS**

#### *1,1,2,2-tetrachloroethane*

Similar to all highly chlorinated aliphatic compounds, 1,1,2,2-TeCA is most likely to biodegrade under anaerobic conditions through reductive dechlorination. During reductive dechlorination, chlorine atoms are sequentially removed from the 1,1,2,2-tetrachloroethane molecule to form 1,1,2-trichloroethane, then 1,2-dichloroethane (1,2-DCA), then chloroethane (CA) and finally ethane. Strong reducing environments are necessary for biodegradation to occur. Reductive

dechlorination of 1,1,2,2-tetrachloroethane is most rapid under methanogenic conditions, but will also occur under sulfate-reducing and iron-reducing conditions at a slower rate (Aronson and Howard, 1997). The reductive dechlorination pathways for chlorinated ethanes are presented on Figure 2.1.

#### *1,1,2-trichloroethane*

1,1,2-TCA is likely to only readily biodegrade under anaerobic conditions. Through anaerobic (reductive) biodegradation, 1,1,2-trichloroethane forms 1,2-dichloroethane (1,2-DCA) and vinyl chloride (VC), followed by chloroethane (CA), and finally ethene and ethane. Reductive dechlorination occurs under methanogenic conditions and at a slower rate under sulfate-reducing and iron-reducing conditions (Aronson and Howard, 1997).

#### *Carbon tetrachloride and trichloromethane*

CTeT and TCM are highly oxidized chlorinated compounds and therefore only readily degrade under anaerobic conditions (Aronson and Howard, 1997). During anaerobic (reductive) biodegradation chlorine atoms are sequentially removed from the carbon tetrachloride molecule to form primarily trichloromethane, then dichloromethane, then methyl chloride, and finally methane. Reductive dechlorination quickly occurs under methanogenic conditions and at a slower rate under sulfate-reducing and iron-reducing conditions.

#### *Methylene chloride*

DCM is a less highly chlorinated compound and will biodegrade under both aerobic and anaerobic conditions. Numerous studies have shown that DCM is fairly readily biodegraded under most aerobic environmental conditions to form formaldehyde and hydrochloric acid.

During anaerobic (reductive) biodegradation chlorine atoms are sequentially removed from the dichloromethane molecule to form methyl chloride, and finally methane. Other potential biodegradation products of dichloromethane under anaerobic conditions include methanol, acetic acid, and carbon dioxide. Some studies have demonstrated that biodegradation of dichloromethane (DCM) to environmentally acceptable products even when DCM is the only carbon source occurs under methanogenic conditions (Freedman and Gussett, 1991) ( Braus-Stromeyer et al., 1993). Another study has demonstrated that biodegradation of DCM in contaminated aquifers may occur under nitrate-reducing conditions via oxidation pathways (Freedman et al. 1997).

## **2.2 ABIOTIC DEGRADATION**

It has been recognized that while biological degradation is the most important degradation mechanism for chlorinated solvents, some of the compounds can degrade abiotically (USEPA 1998, Lee and Batchelor 2002). Potential abiotic reactions include hydrolysis (addition of OH<sup>-</sup>), dehydrohalogenation (removal of a chlorine and hydrogen atom to form a carbon-carbon double bond), hydrogenolysis (replacement of a chlorine with hydrogen) and dihaloelimination (removal of two chlorines and the formation of a carbon-carbon double bond). Only hydrogenolysis and dihaloelimination occur under reducing conditions, such as those encountered at the Site. The abiotic degradation of PCE, TCE, and DCE can also produce acetylene under anaerobic conditions such as those found at the Site.

1,1,2,2-tetrachloroethane can degrade abiotically by hydrogenolysis to TCE. Under continued reducing conditions, the TCE produced from the abiotic degradation of 1,1,2,2-tetrachloroethane can be degraded to 1,1-dichloroethene (1,1-DCE), cis- and trans-1,2-dichloroethene, vinyl chloride and ultimately to ethene. (Aronson and Howard, 1997).

Benzene can degrade abiotically, but generally does so under oxidizing conditions, and therefore is unlikely to be widespread at the Site.

Information regarding abiotic degradation of dioxins, furans, PCBs and other Site-related COCs appears to be limited and is therefore expected to be minor.

## **2.3 BACKGROUND ON SORPTION AND PRECIPITATION PROCESSES**

The adsorptive capacity of organic compounds is represented by organic carbon partitioning coefficient ( $K_{oc}$ ) values. These values are compound-specific proportionality constants, where the ratio of adsorption to dissolution is normalized to organic matter content. The higher the value, the more of the compound will adsorb to surfaces rather than dissolve in water. Organic matter provides the most sites for adsorption, and the organic matter content of the soil directly affects the amount of sorption. These values are used to calculate the retardation factors of compounds relative to groundwater flow.

Sorption is an important natural attenuation mechanism for PCBs, dioxins and furans, as they are very strongly adsorbed to organic matter in soils and sediments. This contributes to their slow degradation rates in the natural environment by reducing their bioavailability. Their immobilization also reduces the harm they can do to potential receptors (Gomes et al., 2013).

Metals may exist in solution as free ions, but more commonly they form various oxides, mobile organic/inorganic ligands, or are associated with mobile organic or mineral colloids. Metals in groundwater may be attenuated by precipitation as minerals, adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Oxidation-reduction (redox) reactions can transform the valence states of some inorganic contaminants to less soluble and thus less mobile forms and/or less toxic forms (e.g., hexavalent chromium to trivalent chromium). The formation of precipitates may depend on the presence of other species, such as sulfate (USEPA, 1992). Sorption and redox reactions are the dominant mechanisms responsible for the reduction of mobility, toxicity, or bioavailability of inorganic contaminants. Metals will generally sorb to clay particles in the soil or to metal oxide coatings on soil grains.

The ADP and pH plumes are generally coincident and consist primarily of sodium, chloride, hydroxide, and silicate ions. Chloride will not adsorb to surfaces, but sodium, silicate, and hydroxide may interact with mineral and organic surfaces and constituents.

## **2.4 PHYSICAL ATTENUATION PROCESSES**

Non-destructive physical attenuation processes such as dispersion, diffusion, dilution, sorption, and volatilization will occur to varying degrees within any groundwater plume. However, in the immediate vicinity of the Waterway, there will be some dispersion of VOC concentrations in groundwater that is caused by cyclic inflow/outflow conditions during high and low tides, referred to as tidal dispersion. The continuous fluctuation between high and low tide creates a transient groundwater mixing zone in the immediate vicinity of the Waterway, both horizontally and vertically, where recharging surface water under a high tide is mixed with discharging groundwater under a low tide. Due to dilution within the Waterway, the recharging surface water has very low VOC concentrations. The mixing of recharged surface water with groundwater beneath the mudline results in tidal dispersion that reduces VOC concentrations immediately before discharging to surface water.

Because physical attenuation processes occur at all sites, this evaluation will focus on the biological and chemical attenuation processes of the Site COCs.

## **3.0 SITE CONDITIONS**

A brief description of the geologic and hydrogeologic conditions in the study area is presented in Sections 3.1 and 3.2 respectively. A more complete description of the physical setting is

presented in Section 3.0 of the main text. Section 3.3 presents a brief description of the constituents of concern considered for degradation evaluation in the Site.

### **3.1 SITE GEOLOGY**

At the Site, the generalized geologic conditions based on Site borings are described as follows (from ground surface):

Fill - variable mixture of sand, silt, and gravel material placed through dredging of the Hylebos and Blair Waterways to develop the Site peninsula. The thickness of the fill across the Site ranges from approximately 10 to 15 ft with hydraulic conductivity values that range from approximately  $1.0 \times 10^{-4}$  to  $1.0 \times 10^{-2}$  centimeters per second (cm/s) (0.3 to 30 ft/d).

Deltaic deposits - heterogeneous mixture of interbedded sands, silts, and clays. The thickness of the deltaic deposits across the Site ranges from approximately 30 ft to 200 ft in the eastern and northeastern portion of the Site to greater than approximately 300 ft in the southwestern portion of the Site. Hydraulic conductivity values for the deltaic deposits range from approximately  $1.0 \times 10^{-5}$  to  $1.0 \times 10^{-2}$  cm/s (0.03 to 30 ft/d).

Glacial deposits - heterogeneous mixture of interbedded gravel, sands, silts, and clays. The thickness of the glacial deposits beneath the Site has not been determined, but based on regional information, is more than 1,000 ft. Hydraulic conductivity values for the glacial deposits range from approximately  $5.0 \times 10^{-5}$  to  $5.0 \times 10^{-3}$  cm/s (0.15 to 15 ft/d). The top surface of the glacially derived deposits slopes downward to the north, west, and south from a mound observed under the central portion of the Site. The glacial deposits are not encountered at borings in the west, southwest, and south portion of the Site peninsula and is inferred to dip downward in this area below the depth of the Site borings.

The Site stratigraphic data indicate that there is an increased frequency of lower permeability lenses, comprised mainly of silt and clay, in the lower deltaic deposits.

### **3.2 SITE HYDROGEOLOGY**

The principal hydrologic features are the two waterways adjacent to the Site peninsula: the Hylebos and Blair Waterways, and Commencement Bay to the north. The primary hydrological influence from these surface water bodies on the groundwater flow system is the tidal fluctuation that these surface waters exhibit. The tidal fluctuations create transient conditions to the groundwater flow system underlying the Site. Depending on the tidal stage, groundwater flow may be directed from the surface water bodies towards the groundwater system underlying the peninsula and the Waterways (i.e., high tide), or groundwater flow may be directed towards the surface water bodies (i.e., low tide).

### **3.3 CHEMICALS OF CONCERN FOR THE NATURAL ATTENUATION EVALUATION**

Chemicals of concern (COC) have been established for the Site based upon historical Site processes, investigations, and characterizations. Table 3.1 present the COCs that have been identified in Site. VOCs associated with the production of chlorinated solvents at the Site are the primary chemical contaminants in groundwater. In particular, PCE, TCE, and VC are considered to be representative indicator parameters of VOC contamination at the Site.

The inorganic constituents of concern (metals) considered for the natural attenuation evaluation are described in the “Draft Contaminant Transport Modeling Work Plan” (CRA, 2012). The main metals of concern at the Site include arsenic, chromium, copper, lead, mercury, nickel, thallium, and zinc.

### **4.0 NATURAL ATTENUATION DATA SET**

The data used for the redox and by-product evaluation portions of this NA evaluation included the most recent groundwater sample collected from any location at the Site. The VOC molar ratio evaluation used all available samples that met the criteria as described in Section 5.2.2.

Groundwater samples for the analyses of natural attenuation indicator parameters were collected from select monitoring wells using low-flow purging (LFP) and sampling techniques. The LFP protocol involves purging a monitoring well at a low flow rate until a suite of field measured parameters [consisting of temperature, conductivity, pH, dissolved oxygen (DO), oxidation reduction potential (ORP), and turbidity have stabilized. The groundwater samples were collected following stabilization of the purged groundwater and were submitted for the list of natural attenuation indicator parameters and the data are presented in Table 4.1, along with the DO and ORP measured in the field during purging. Dissolved gasses concentrations are presented in Table 4.2 and the VOC parameter data used in the evaluation are presented in Table 4.3.

### **5.0 NA EVALUATION**

#### **5.1 WEIGHT-OF-EVIDENCE EVALUATION APPROACH**

Consistent with the Technical Protocol, a weight-of-evidence approach was applied to demonstrate the occurrence of natural attenuation processes at the Site. This evaluation included examining trends in the geochemical and redox indicator parameter data in time and/or along a common groundwater flow path to evaluate indirectly the type(s) of natural

attenuation processes occurring at the Site. Consistent with the Technical Protocol, the lines of evidence evaluated consists of the following:

- steady-state (stable) or receding plume conditions over time
- geochemical and redox indicator parameters demonstrating the occurrence of biodegradation processes
- presence of degradation products and/or metabolic end products
- availability of organic substrate to sustain microbial activity.

These lines of evidence were evaluated using qualitative means as described below.

- Plume Conditions Over Time and distance from the source

The Protocol recommends that groundwater quality data be evaluated to assess reductions in COC concentrations over time within individual wells. At the Site, a groundwater extraction system is currently in operation and therefore it is not possible to separate changes in groundwater concentrations due to pumping from those due to natural attenuation processes. Therefore, concentration trends over time were not evaluated for this report.

The protocol also recommends that data be evaluated to determine reductions in COC along the flow path. At the Site, the source areas are often adjacent to the discharge points near the Waterways, meaning that the rapid decreases in concentrations along the groundwater flowpath are caused by discharge to and dilution by the surface water. This does not meet the intended definition of NA along the groundwater flowpath. . The only potential pathway not influenced by direct discharge or groundwater extraction is northward toward the 77C well nest. This pathway was evaluated and attenuation rates were calculated for each COC group.

- Redox Zone Delineation Including Identification of Electron Donors and Acceptors

An evaluation of redox indicator parameters is conducted to determine whether conditions in the groundwater flow system are conducive to biodegradation of the organic COCs present. This also involves evaluation of the specific biodegradation processes that are possible given the subsurface geochemical conditions (e.g., in specific geochemical environments, VOCs may undergo biodegradation by reductive dechlorination or by cometabolic pathways). The redox processes are also evaluated to determine if conditions are conducive for the sorption of metals to aquifer surfaces.

- Characterization of Degradation (i.e., "daughter") Products

Further qualitative natural attenuation evaluation involves analysis of the presence of specific degradation (i.e., "daughter") products of the COCs of interest in order to determine whether COCs are undergoing degradation. These data may also provide an indication of the specific biodegradation pathways that are occurring. For example, the presence of ethene in groundwater provides evidence of vinyl chloride biodegradation via reductive dechlorination.

Similarly, the presence of acetylene in groundwater is an indication that PCE and/or TCE are degrading via abiotic processes.

The relative ratios of DCE isomers are used to provide information regarding the origin of DCE in groundwater. There are three DCE isomers: 1,1-DCE, cis-1,2-DCE, and trans-1,2-DCE. When DCE is released to the environment anthropogenically, the ratios of the three isomers are relatively equal. When DCE is produced through biodegradation of TCE, production of the cis-1,2-DCE isomer is favored over that of trans-1,2-DCE and 1,1-DCE (Wiedemeier et al., 1999; and Wiedemeier et al., 1996). Therefore, evaluation of DCE isomers provides a qualitative indication of the presence of 1,2-DCE as a product of TCE biodegradation.

Although not specified in the Technical Protocol, the molar ratios of chlorinated VOC daughter products to parent products was also evaluated relative to the pH and redox conditions to determine how Site conditions affect the progress of biodegradation of these compounds.

- Presence of Substrate Source

In order for biodegradation to occur, microorganisms require a readily available source of organic carbon to provide energy to carry the metabolic reactions that result in the reductive dechlorination of chlorinated organic carbon. This source of organic carbon often is called organic substrate, and may take the form of natural organic matter, or anthropogenic organic matter such as hydrocarbon fuel, which is usually rich in organic carbon that can be readily consumed by microorganisms.

The molar ratios of chlorinated VOC daughter products to parent products was also evaluated relative to the concentration of organic carbon to determine if biodegradation of chlorinated VOCs is directly affected by the levels of dissolved organic carbon (DOC).

## **Alternative Evaluation Approaches**

There are additional characterization techniques that are used at sites to help evaluate natural attenuation potential. Some of these techniques are described below along with their potential application to the Site.



### **Ricker Plume Stability Method**

The Ricker (2008) method for evaluating plume stability was proposed by Joseph Ricker, and involves the calculation of plume area, contaminant mass, and average concentration changes over time at a site. This method is very powerful as it uses all of the available site data and is therefore less susceptible to error due to small variations at individual wells. The method requires multiple sampling events across the site. While there have been many sampling events at the Site, many of the locations near the plume periphery have been sampled only once, which makes the Ricker method currently unsuitable. The VOC plumes at the Site extend beyond the furthest downgradient monitoring wells, meaning that the future use of the Ricker method also has limited applicability at the Site. The active groundwater extraction system also introduces more error into any result obtained using the Ricker method, because the change in mass from extraction cannot be distinguished from the change in mass due to biodegradation.

### **Contaminant Mass Flux Calculation**

The contaminant mass flux approach to evaluate natural attenuation relies on estimates of the mass flux across several cross sections (transects) drawn perpendicular to the groundwater flow. Ideally, several rounds of data are used to determine the mass flux changes over time. At the Site, there are several locations where only 1 sampling event has occurred. Because at least one of the discharge points (Hylebos) is adjacent to the source areas, separating changes in mass flux due to biodegradation from mass flux due to surface water interaction is not possible. Also, the groundwater extraction system will introduce additional error in any calculations of mass flux.

### **Microbiological Characterization**

Quantitative polymerase chain reaction (real-time PCR) can be used to identify the types of microbes present in a sample. This can be used to determine if the microbial community has the potential to be able to degrade the COCs present. At the Site, there is unequivocal evidence that PCE and TCE are being degraded through VC to ethene, at least to some extent. It is, therefore, not necessary to use real-time PCR to determine if the proper microbes are present; the Site evidence confirms that degradation is occurring.

Real-time PCR may be of use in determining if SVOCs, PCBs, and dioxins/furans-degrading bacteria exist at the Site. But because these COCs do not form significant plumes, there really is no benefit performing real-time PCR.

## **Compound-Specific Isotopic Analysis**

Compound-Specific Isotopic Analysis (CSIA) involves the measurement of isotopic ratios of elements within individual compounds to detect the isotopic shifts that occur during biodegradation. CSIA can be used to determine if a compound is the product of biodegradation, or is part of the source material. Because degradation of chlorinated VOCs is documented at the Site, the use of this technique to determine if degradation is occurring is not warranted. In the best cases, CSIA can also be used to help determine the degree of biodegradation of a compound, if the starting material has been well-characterized. There is a long disposal history of CVOCs at the Site, meaning that the source would not have one single signature, but would instead consist of compounds with many different isotopic signatures, spread throughout the source areas. This would introduce a large degree of uncertainty in the evaluation, and would provide no additional information regarding the biodegradation potential that could not be obtained through other means. For this technique to be useful for SVOCs, PCBs, and dioxins/furans, more research needs to be completed regarding the isotopic signature shifts during biodegradation to be able to obtain useful information. However, because these COCs do not form significant plumes, the usefulness of CSIA at the Site is questionable.

## **Stable Isotope Probing**

Stable isotope probing (SIP) includes the introduction of an isotopically-labeled COC to determine if the COC is undergoing biodegradation. The isotope label is used as a tracer that can be detected in biodegradation products and can be used to prove that biodegradation is occurring. Isotopic probing is most often used in relation to fuel-related compounds (e.g., BTEX). Commercial laboratories cannot currently complete this evaluation for SVOCs, PCBs, and dioxins/furans. There is adequate evidence that the biodegradation of chlorinated VOCs is occurring at the Site. SIP analysis performed in the future would only confirm this conclusion, making this type of analysis unnecessary.

An assessment of Site data consistent with the weight-of-evidence evaluation approach described above is presented in Section 5.2.

## **5.2 WEIGHT-OF-EVIDENCE EVALUATION**

The following assessment demonstrates that natural attenuation of the COCs in groundwater beneath the Site is occurring to some extent due to both non-destructive and destructive processes.

### 5.2.1 CONCENTRATION CHANGES OVER TIME AND ALONG THE FLOW PATH

Along the groundwater flowpath, non-destructive natural attenuation processes such as dispersion, diffusion, dilution, sorption, and volatilization generally apply to varying degrees to any groundwater plume. Near and especially beneath the Hylebos Waterway, dispersion and dilution caused by cyclic inflow/outflow conditions during high and low tides, is likely a significant physical attenuation process at the Site. The continuous fluctuations between high and low tides creates a groundwater mixing zone near the Waterway, both horizontally and vertically, where recharging surface water under a high tide is mixed with discharging groundwater under a low tide. This tidal dispersion reduces groundwater concentrations immediately before discharge to surface water occurs.

#### **Bulk Migration Rates**

A conceptual average bulk COC migration rate was estimated for the dissolved groundwater plumes for each main group of COCs. The distance each COC group has traveled from the suspected source areas was divided by the time since the source is thought to have been in place. Due to the uncertainty in the starting time for the sources, a range of values were used for the start times (1940 – 1960).

The table below presents the conceptual migration rates for each of the COC groups.

<b><i>COC Group</i></b>	<b><i>Assumed Starting Area</i></b>	<b><i>Estimated Lateral Migration Distance as of 2013 (ft)</i></b>	<b><i>Range in Estimated Migration Rates (ft/yr)</i></b>
CVOCs (vinyl chloride)	WMU H	1,700	23 - 32
pH	Caustic House	1,500	21 - 29
ADP	Salt Pad/WMUs C, F, G, H	1,600	22 - 30
Metals (zinc)	Navy-Todd Dump	400	6 - 8

Vinyl chloride and zinc were chosen because of the COCs from their respective groupings, they have traveled farthest from their respective source areas. SVOCs, PCBs, and dioxins/furans were not included because these COCs do not form distinct enough groundwater plumes to allow the calculation of migration rates.

It should be noted that the estimated migration rates presented above are conceptual in nature. These historical plume migration rate estimates are not representative of current conditions and are not predictive of future migration rates.

Uncertainty in the estimates is due to the following:

- Higher density releases, greater than what is currently observed in the ADP, likely occurred at early time and likely caused faster initial (downward) migration rates. As dilution of the ADP has occurred over time, the migration rates due to density effects have likely slowed.
- The assumption of a starting point: Input to the subsurface would have started immediately after the initial discharge of solvent waste to the subsurface. However, the time for the initial release of a large enough volume of product to cause DNAPL migration is not available.
- The assumption that the flow was uniform over time: The presence of DNAPL at depth beneath the Site is direct evidence that a dense, separate phase migrated downward vertically from discharge point(s) at the surface. Accounts of experimental vertical DNAPL migration from the literature indicate that the DNAPL migration rates would be different from the dissolved groundwater plume migration rates. Currently there is no reliable method to separate DNAPL migration rates from estimates of dissolved groundwater plume migration rates.
- The presence of the ADP: The conceptual migration calculation method proposed requires the assumption the groundwater flow field was uniform, which would not have been case with the density effects associated with the early time high density releases. It is understood that the mixing of the high-density and low density waters is limited. Therefore the migration rate of CVOCs within the ADP will depend, to some extent, on the ADP migration, and will be different from the migration rate within the groundwater outside the ADP. There is no way to account for these differences that occurred historically.

### **Groundwater Flow-Based Migration Rates**

A migration rate for each of the COC groups was calculated based on estimated groundwater flow rates and the transport properties of the most mobile member of each of the COC group. This provides an upper estimate for migration rates for each group. Hydrogeologic and compound-specific values used in the calculations are presented in Tables 5.1 and 5.2, respectively. These migration rates account for sorption only, and do not consider the contribution of degradation on the organic COC migration rates.

The distribution coefficient ( $K_d$ ) was calculated using the organic carbon partitioning coefficient ( $K_{oc}$ ) and the fraction of organic matter in the aquifer matrix ( $f_{oc}$ ). As suggested in the Technical Protocol a range of  $f_{oc}$  values was used to provide a sensitivity analysis, giving a maximum and minimum  $K_d$  value for each compound.

The coefficient of retardation (R) was calculated for each group assuming linear sorption. Mean Site values for porosity, hydraulic conductivity, and bulk density were used, as provided in Table 5.1. A Site-specific range of hydraulic gradients were used to calculate groundwater velocity, as the groundwater flow direction and gradients are highly variable over the Site. The results are summarized in the table below and in Table 5.2.

<b>COC Group</b>	<b><math>K_d</math> (L/Kg)</b>		<b>R</b>		<b>Migration Rate (ft/yr)</b>	
	<b>Min</b>	<b>Max</b>	<b>Min</b>	<b>Max</b>	<b>Min</b>	<b>Max</b>
CVOCs (vinyl chloride)	0.0035	0.48	1.0	2.8	2.7	67
SVOCs (HCBd)	0.14	19	1.5	71	0.11	45
PCBs (Arochlor 1221)	1.3	180	6.0	690	0.011	11
Dioxins/Furans (dibenzofuran)	1.5	200	6.5	760	0.010	10
ADP (Cl <sup>-</sup> )	0	0	1.0	1.0	7.5	67
pH	0	0	1.0	1.0	7.5	67

Most of the above maximum migration rates are affected by biotic and abiotic reactions to some degree. The transport of the CVOC group in particular will be much slower, as these compounds are the most likely to degrade under Site conditions (generally reducing). Vinyl chloride is a conservative representative for these calculations as it not only is the least sorptive, but is also less likely to degrade under reducing conditions. The bulk migration rates presented above for CVOCs falls within this compound-specific range.

Due to their low solubility and high sorption, the migration rates of PCBs and dioxins/furans are low, and are least likely to be affected by biodegradation.

The ADP and pH plumes have calculated flow rates equal to the groundwater flow velocity because the representative components are readily soluble in groundwater. However, Site data indicate that the production of silica gel at the boundaries of the pH plume may slow its migration. Also, there is a significant difference in the densities of the fresh groundwater and

the ADP, meaning that mixing of the ADP with the fresh groundwater may be inhibited. Both of these factors will result in actual migration rates which are slower than those calculated above.

Migration rates for metals were not calculated because the final results of the metals Kd study were not available at the time of the drafting of this report.

The bulk migration rates calculated based on Site data all fall within the range of the groundwater flow-based migration rates, for those parameters where both bulk migration rates and groundwater flow-based migration rates were calculated.

### **Biodegradation Rate Constants**

Biodegradation rates were estimated for the CVOCs (PCE, TCE, cis-DCE, and VC). These were the only compounds where biodegradation is a significant attenuation mechanism and that formed distinct plumes that would allow for calibration using Site data.

The modeling program BIOCHLOR (USEPA, 2002) was used to estimate first-order decay coefficients for the primary CVOCs at the Site. BIOCHLOR simulates remediation via natural attenuation of chlorinated solvents and is based upon the Dominico analytical solute transport model. It can account for 1-D advection, 3-D dispersion, linear adsorption, and biotransformation via reductive dechlorination. The rate constants provide information on the rate of attenuation of each chlorinated compound. The model runs using a simple, single centerline plume with a single decay rate for each compound, and so it cannot capture the full complexity of the hydrogeologic conditions at the Site. However, it can provide useful estimates.

The centerline of the plume was estimated using the furthest extent of VC from the CVOC source areas. The centerline fell from the center of the CVOC source area (former solvent production plant S1) towards plant north-northwest and monitoring well nest 77C. Wells along the flowpath between these two points were used and the concentration data at selected (most impacted) depths are presented in Table 5.3. The sampled depth with the highest concentration of PCE was selected for the analysis.

First-order decay coefficients were estimated using an iterative process by calibrating the predicted concentrations to the field-measured concentrations at the selected wells along the centerline of the plume. PCE was calibrated first, followed by each degradation product in sequence. The calibrated rate constants are presented in Table 5.3. Model files are included in Attachment A. The biodegradation rates presented in Table 5.3 are consistent with the values

summarized by Suarez and Rifai (1999) for reductive dechlorination measured in field and in-situ studies, albeit towards the low end of the given range.

There are several assumptions that contribute to the uncertainty in the model results:

- The biodegradation rates were estimated by visually matching the output curve to the Site data.
- The biodegradation rates are assumed to be uniform over the entire plume length, independent of Site conditions. This is unlikely to be the case.
- The plume is assumed to be at steady state, which may not be the case.
- The source zone is set in the model as a continuous, non-decaying source, which may not reflect Site conditions. The concentrations at the source may have fluctuated significantly over time.
- Total porosity instead of effective porosity was used in the calculations, as no Site-specific estimations of effective porosity are available.
- The model results are given after a run time of 70 years. This is calculated from the assumption of the year of source initiation (1940) and the date of the most recent sampling results (~2012).
- Plume dispersion values were assumed to be consistent with default ratios with x in the y and z directions (0.1 and  $1 \times 10^{-99}$ , respectively). Dispersion in the x direction (longitudinal) was estimated in BIOCHLOR using the modified Xu and Eckstein equation, assuming a plume length of 1,700 ft.

These assumptions result in a significant amount of uncertainty in the resulting biodegradation rates presented in Table 5.3.

### **5.2.2 GROUNDWATER REDOX ZONE DELINEATION**

Using the most recent result from any groundwater location, isopleths maps for the following redox indicator parameters: oxidation-reduction potential (ORP), dissolved oxygen (DO), nitrate, iron, manganese, and sulfate were constructed. The data are presented in Table 4.1 and isopleth maps for each parameter at each depth zone and are presented on Figures 5.1 through 5.42. There were too few results to create isopleths maps for each depth zone for alkalinity and methane.

The following section describes the distribution of redox indicator parameters at the Site and provides an evaluation of the overall redox zones.

## ORP

Isopleths maps for ORP for the 15-ft through 160-ft depth zones are presented on Figures 5.1 through 5.7. Figures 5.1 through 5.3 show that the pattern of ORP distribution in the upper depth zones is similar, with some variations. There is an area of oxidizing conditions (ORP > 50 mV) in the south on the 721 Alexander Avenue property that extends northward along the Hylebos embankment. A second oxidizing area is located near Dock 2. There are also isolated areas of oxidizing conditions beneath the Hylebos Waterway. Over much of the remainder of the Site, conditions are more reducing, with values below -200 mV detected regularly.

In the 75-ft zone (Figure 5.4), the isolated areas of oxidizing conditions remain beneath the Hylebos, and also appear to the west and north of the former production areas. Over much of the remainder of the Site, conditions are more reducing, with values as below -200 mV detected regularly.

In the 100-ft Zone (Figure 5.5), the areas of oxidizing conditions reappear on the 709 property and near Dock 2, in addition to isolated areas of oxidizing conditions beneath the Hylebos and north of the former production area. A significant part of the Site still has ORP values below -200 mV.

In the 130-ft zone (Figure 5.6) and the 160-ft zone (Figure 5.7), the isolated areas of oxidizing conditions remain beneath the Hylebos and north of the former production area. ORP values in these areas are not quite as high as in the shallower zones, however, and values below -200 mV were regularly measured.

The Technical Protocol indicates that at ORP values below 50 mV, the reductive pathway for the degradation of chlorinated solvents is possible, and that below -100 mV, the reductive pathway is likely. It appears that conditions over much of the Site are somewhat to very reducing, although the areas of reducing conditions are not necessarily co-located with the impacted areas.

## DO

Isopleths maps for DO for the 15-ft through 160-ft depth zones are presented on Figures 5.8 through 5.14. The Technical protocol indicates that oxygen concentrations above 5 mg/L are not tolerated for reductive dechlorination. The 5 mg/L contour is, therefore, highlighted on the figures to indicate this screening threshold value.



The DO data presented on Figures 5.8 through 5.14 show several areas where dissolved oxygen values are above 5 mg/L. The elevated DO values do not exhibit a consistent pattern with depth or with respect to Site features. DO values in the mg/L range are inconsistent with the other redox indicator parameters at the Site, indicating that the DO data may not be reliable in determining redox conditions.

### Nitrate

Isopleths maps for nitrate for the 15-ft through 160-ft depth zones are presented on Figures 5.15 through 5.21. The Technical protocol indicates that nitrate concentrations above 1 mg/L may inhibit reductive dechlorination of chlorinated solvents. The 1 mg/L contour is, therefore, highlighted on the figures to indicate this screening threshold value.

There are relatively few nitrate values in the 15-ft zone (Figure 5.15) and 25-ft zone (Figure 5.16), but the majority of the values (presented in Table 4.1) are below 1 mg/L.

In the 50-ft zone (Figure 5.17) and the 100-ft zone (Figure 5.19), there is an area of nitrate above 1 mg/L within and north of the former manufacturing area, although it is not clear what, if any, relationship this has to Site activities.

The majority of the nitrate concentrations in the 75-ft zone (Figure 5.18), 130-ft zone (Figure 5.20), and 160-ft zone (Figure 5.21) are below 1 mg/L, although some values above 1 mg/L were detected at each depth zone.

The low nitrate concentrations over most of the depth zones indicate that nitrate-reducing conditions likely exist at the Site. There is no obvious pattern in the nitrate data that correlate with Site activities, but there are some very high concentrations (e.g. 198 mg/L at 81-50) which suggest some anthropogenic influence.

### Iron

Isopleths maps for iron for the 15-ft through 160-ft depth zones are presented on Figures 22 through 28. The Technical Protocol indicates that iron concentrations above 1 mg/L indicate that iron-reducing conditions likely exist in the area. The 1 mg/L contour is, therefore, highlighted on the figures to indicate this screening threshold value.

The data presented on Figures 22 (15-ft zone) through 25 (75-ft zone) indicate that iron-reducing conditions exist over significant portions of the Site at each of the depth zones, but areas where concentrations were below the threshold also exist, especially toward the central

portion of the peninsula. The areas of lower iron concentrations are not consistent with depth, however. The areas of elevated iron concentrations do not necessarily coincide with the areas of VOC impact at the Site.

In the 100-ft zone (Figure 5.26) through 160-ft zone (Figure 5.28), the areas of lower iron concentrations are generally smaller than in the shallower depth zones, and with larger areas of very high iron concentrations.

The iron data indicates that there are large areas where iron-reducing conditions exist at the Site, especially at lower depth zones. It is possible that the high pH values contribute to the dissolution of iron oxides in the soil, resulting in higher iron concentrations. Although, there is no apparent correlation between pH and iron concentrations (See Section 5.2.1.2). This suggests that much of the iron in the groundwater is most likely the result of microbial activity. Therefore, conditions over much of the Site are likely iron-reducing.

### Manganese

Isopleths maps for manganese for the 15-ft through 160-ft depth zones are presented on Figures 5.29 through 5.35. The Technical Protocol indicates that manganese values above 0.1 mg/L indicate that manganese-reducing conditions likely exist in the area. The 0.1 mg/L contour is, therefore, highlighted on the figures to indicate this screening threshold value.

There are few data in the 15-ft zone (Figure 5.29); however, most appear to be below the 0.1 mg/L threshold.

In the 25-ft zone (Figure 5.30) and 50-ft zone (Figure 5.31) the central portions of the figure are generally below the threshold, with some exceptions, while the areas on the periphery and to the north are above the threshold, indicating manganese-reducing conditions exist.

In the 75-foot zone (Figure 5.32) and 130-ft zone (Figure 5.34), there are few upland sample locations from which to draw conclusions, but it appears that there is an area of manganese-reducing conditions beneath the Hylebos Waterway.

In the 100-ft zone (Figure 5.33), manganese-reducing conditions exist over much of the Site, except in the area near the Salt Pad and in two isolated samples beneath the Hylebos.

In the 160-ft zone (Figure 5.35), manganese-reducing conditions exist at all locations sampled. However, the sampled area only covers a portion of the Site.

The manganese data indicate that manganese-reducing conditions do exist over a significant portion of the Site, but if a pattern exists, conditions appear to be least reducing toward the central portion of the peninsula.

### Sulfate

Isopleths maps for sulfate for the 15-ft through 160-ft depth zones are presented on Figures 5.36 through 5.42. The Technical Protocol indicates that sulfate values above 20 mg/L may inhibit the reductive dechlorination of chlorinated solvents. The 20 mg/L contour is, therefore, highlighted on the figures to indicate this screening threshold value.

The data presented on Figures 5.36 (15-ft zone) through 5.38 (50-ft zone) indicate that sulfate concentrations are generally below 20 mg/L in the southern and western portion of the Site.

In the 75-ft zone (Figure 5.39) the areas of lower sulfate concentrations are generally smaller in the western portion of the Site, but another area of low sulfate concentrations exists east of the Hylebos, where the influx of fresh groundwater from the Bluffs is potentially occurring. Sulfate concentrations increase in the central portion of the Site, potentially due to the influence of salt water and the ADP.

In the 100-ft zone (Figure 5.40), the area of lower sulfate concentrations is generally limited to the southwestern portion of the Site and in the area east of the Hylebos.

In the 130-ft zone (Figure 5.41) and 160-ft zone (Figure 5.42), the areas of sulfate concentrations below 20 mg/L are very restricted, and only the area east of the Hylebos is consistent. The concentrations of sulfate in some areas were over 5,000 mg/L.

Sulfate concentrations were over 20 mg/L over much of the Site, which likely reflects the influence of the ADP and natural salt water. Sulfate can therefore not be used as a reliable indicator of redox conditions. Elevated sulfate concentrations inhibit the reductive dechlorination of chlorinated solvents, but the widespread presence of DCE and VC at the site indicates that elevated sulfate concentrations has not prevented chlorinated solvents the degradation from occurring.

### Methane

There were not sufficient methane data to complete isopleths maps that would provide meaningful distribution information. The data, presented in Table 4.2, indicate that methane concentrations in excess of 1 mg/L were detected in locations beneath the peninsula and the

Hylebos. The presence of methane concentrations is good evidence that at least a portion of the Site is under methanogenic conditions.

### **Redox Indicator Conclusions**

The bulk of the redox indicator data show that reducing conditions, up to and including methanogenic conditions exist at the Site, particularly at depth. Iron-reducing conditions appear prevalent over much of the Site. There does not, however, appear to be a strong correlation with the areas of VOC impact, suggesting that the presence of reducing conditions may be attributed to the Site being within a tidal mudflat rich in organic matter, which leads to increased microbial activity and, therefore, anaerobic groundwater conditions.

The reducing conditions at the Site are conducive to the reductive dechlorination of chlorinated solvents. SVOCs, PCBs, and dioxins/furans will also degrade under reducing conditions, but at a slower rate than under aerobic conditions.

### **5.2.3 REDOX CONDITIONS EVALUATION FOR METALS FATE AND TRANSPORT**

For the metals of interest, the redox conditions can help indicate the types of precipitation reactions and the extent to which they will sorb to the surfaces of the soil grains present. While some metals are not themselves susceptible to redox reactions, the redox conditions can help determine the types of other species available that affect their transport.

Conditions at the Site are generally reducing, meaning that the dissolution of natural iron and manganese oxide coatings is likely occurring over much of the Site. Metals generally sorb to iron and manganese oxide coatings, and the dissolution of these coatings means that less sorption is likely to occur at the Site than would be the case for an oxidizing environment.

A study, being conducted by the University of Washington, will evaluate the effects of Site conditions on the transport of metals in greater detail.

### **5.2.4 PRESENCE OF DEGRADATION PRODUCTS**

#### **Chlorinated VOCs**

Both PCE and TCE historically were released to the subsurface at the Site and are considered as the predominant source of the VOC plume in groundwater. A key indicator of biodegradation is

the presence of PCE and TCE daughter products at monitoring wells within the groundwater plume. TCE, cis-1,2-DCE, and VC are anaerobic biodegradation products of PCE, and cis-1,2-DCE and VC are the anaerobic biodegradation products of TCE. VC and chloride are the anaerobic biodegradation products of cis-1,2-DCE. Under anaerobic conditions VC can undergo further biodegradation to form ethylene. Chloride, ethane, and ethene are the ultimate degradation products of all of the chlorinated ethenes.

Where detected, cis-DCE was the most abundant isomer of DCE, which indicates that the DCE was the product of biodegradation of TCE.

The data in Table 4.3 indicates that elevated concentrations of VC have been detected at the Site, and the data in Table 4.2 indicate that ethene has been produced at concentrations above 100 µg/L at several locations. The presence of ethene at elevated concentrations is conclusive evidence that the complete reductive dechlorination of chlorinated solvents is occurring to some extent at the Site.

#### **Effects of Site Conditions on Degree of Biodegradation**

Site conditions can have a significant effect on the types and rates of biodegradation reactions. Therefore, an evaluation of the effects of Site conditions on the apparent degree of degradation of chlorinated VOCs was completed.

To determine the degree of degradation, it is most appropriate to use molar ratios of products to reactants. Because both PCE and TCE were manufactured at the Site, these were considered the reactants. A ratio of daughter products (cis-DCE, VC) to total CVOCs (PCE, TCE, cis-DCE and VC) was used to account for the effects of varying concentrations between locations. In this way, samples from different areas of the Site with different concentrations can be compared directly. Not all of the data was included in the evaluation, however. Because a ratio is used, small variations in concentration can have a large effect on the ratio if concentrations are at or near the detection limits. It is not appropriate, however, to eliminate all samples where the concentration of any of the constituents is low; there is still valuable information in many of these samples. For example, if the concentrations of PCE and TCE are below the detection limit, but concentrations of VC or cis-DCE are in the mg/L range, then it can be concluded that there has been significant biodegradation in the sample, even though some of the constituents are below the detection limits. Likewise, if cis-DCE and VC are below the detection limits, and PCE and/or TCE concentrations are in the mg/L range, then it can be concluded that degradation is not occurring or has not yet occurred. For this evaluation, samples where total CVOC concentrations were at or above 100 µg/L were included. This removes the samples where very low concentrations affect the ratio unduly, while retaining as much information as possible.

Figure 5.43 show a crossplot of the molar ratio of daughter products ( $[\text{cis DCE} + \text{VC}]/[\text{PCE} + \text{TCE} + \text{cis-DCE} + \text{VC}]$ ) vs. pH. The literature indicates that microbial activity will be inhibited under high pH conditions; however, the figure does not show a clear trend for molar ratio with pH. This is likely because distance from the source has a large effect on the degree of degradation, and this is not taken into account on Figure 5.43.

Figure 5.44 through 5.48 present the crossplots of the molar ratio of daughter products vs. ORP, nitrate, alkalinity, iron, and sulfate. These figures do not show significant correlation between the parameters listed. This does not mean that there are no relationships between the parameters and the degree of biodegradation, but only that the relationship is not apparent on the plots. It is likely that the geochemical system at the Site is too complex to describe by this method.

Eight locations at the Site had groundwater samples analyzed for acetylene and the results are presented in Table 4.2. Acetylene was detected at a concentration as high as 11  $\mu\text{g/L}$  within the impacted area at well 53C-50. This indicates that the abiotic degradation of PCE and/or TCE is also occurring to some extent at the Site.

#### **SVOCs, PCBs and Dioxins/Furans**

The groundwater samples were not analyzed for the degradation products of SVOCs, PCBs and Dioxins/Furans. Degradation products for these compounds are not part of any routine laboratory analysis method. Therefore, an evaluation could not be completed. If these analyses are required in the future, samples may need to be sent to a specialized research laboratory.

#### **5.2.5 SOURCE OF ORGANIC CARBON**

Effective anaerobic degradation requires organic carbon, measured as DOC, to be present in groundwater. DOC concentrations in groundwater of greater than 20 mg/L are generally considered necessary as a substrate to sustain microbial activity at a high enough level to support robust reductive dechlorination. DOC values for the Site are presented in Table 4.2. Isopleth maps for DOC are presented on Figures 5.49 to 5.55. The figures show that DOC is not evenly distributed throughout the Site. The highest concentrations are also not evenly distributed along the Waterway, making a surface source for the high DOC unlikely. The figures do indicate that the DOC distribution is co-located with the pH plume over some of the depth zones, which may indicate some pH dissolution of natural organic matter, or may be interference with the analytical method. Figure 5.56 presents a log-log crossplot of pH and DOC.

While the relationship is not very strong, there is some correlation between the two parameters. This may indicate that the high pH water is dissolving some natural organic carbon from the soil.

Method E415.1 was used for the analysis of DOC at the Site. The laboratory has indicated that there is a potential that if high concentrations of solvents are dissolved in the samples, then the solvents could be incompletely purged and, therefore, partially included in the reported value. The U.S. EPA Standard Operating Procedure for DOC analysis in lake water (USEPA, 2010) indicates that the acidification and purging of the sample will result in “*minimal loss of volatiles*”, which suggests that some of the DOC may be from the CVOCs in the samples. Concentrations in excess of 500 mg/L were detected at several locations, which is much higher than expected for the depositional environment at the Site.

The procedure includes acidification of the sample prior to purging, but does not include a measurement of pH to determine the appropriate amount of acid to add to each sample. The same amount of acid is added to each sample, which may lead to incomplete acidification of some samples if the pH of the sample is very high. The rough correlation of pH values with DOC concentrations as shown on Figure 5.56 indicates that this may be occurring.

Because of the potential for interference, the DOC values upgradient of the pH and VOC plume areas were used to determine the natural background DOC values for the Site. Concentrations outside of the pH and CVOC plumes are generally near or below 10 mg/L, which is enough to support biodegradation, but is less than the optimal level for robust dechlorination of CVOCs to occur.

The DOC distribution in groundwater does not match the expected distribution of a natural source for the expected environment of glacially-derived material. Concentrations in excess of 1,000 mg/L were detected at several locations. However, there is no conclusive evidence that the DOC measurements are not of natural origin. But further investigation of the source or distribution of DOC at the Site is not relevant to the evaluation of natural attenuation, because background DOC values appear sufficient to support biological activity.

## 6.0 **CONCLUSIONS**

An evaluation of the natural attenuation at the Site was completed to determine the types and, where possible, the rate of natural attenuation processes at the Site.

For all COC groups, physical attenuation mechanisms (dispersion, diffusion, and dilution) are occurring at every site. This natural attenuation evaluation focused on the biological and chemical attenuation processes that are occurring at the Site.

For chlorinated VOCs, it was determined that reductive dechlorination was occurring at the Site. This evidence was based on the redox conditions, which were conducive to reductive dechlorination, the presence of degradation products including ethene, which indicates that complete degradation of chlorinated solvents is occurring to some extent at the Site. The presence of acetylene indicates that the abiotic degradation of PCE and/or TCE is occurring to some extent at the Site.

The natural concentration changes over time could not be evaluated at the Site due to the operation of the groundwater extraction and treatment system and the small number of sampling events in the areas outside the influence of the extraction system. However, approximate biodegradation half-lives for the chlorinated solvents along the northern flowpath were estimated using BIOCHLOR, and are as follows:

PCE: 8 yrs

TCE: 23 yrs

cis-DCE: 17 yrs

VC: 9 yrs

The effect of Site geochemical conditions on the rate of biodegradation was evaluated, but could not be determined due to the complexity of the geochemical interactions at the Site. The degree of biodegradation did not show a strong correlation to pH, ORP, nitrate, iron, alkalinity, or sulfate concentrations.

The other compounds that comprise the ADP do not degrade, but are susceptible to physical attenuation mechanisms. Attenuation rates could not be calculated for chloride or any other inorganic constituents of the ADP, however, because concentrations of these same elements are also elevated in the salt water surrounding the Site.

SVOCs, PCBs, dioxins and furans can be degraded under the reducing conditions at the Site, but literature indicates that rates will be slower than under oxidizing conditions. Distinct plumes of these compounds were not delineated outside of the source area, and therefore degradation rates along the flowpath could not be calculated. Degradation products of these compounds have not been analyzed; therefore, the types of degradation that may be occurring are unconfirmed.



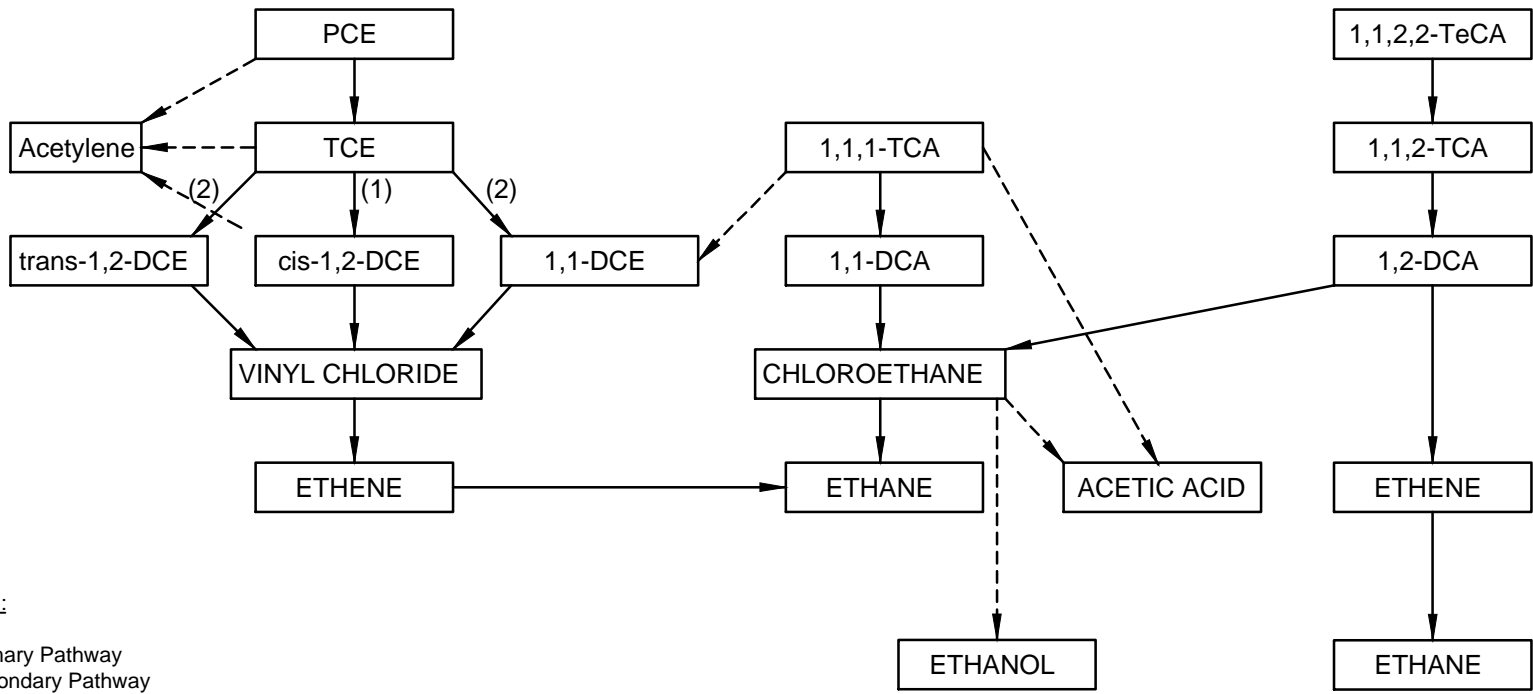
The concentration of natural DOC at the Site is generally at or below 10 mg/L, which is enough to support biodegradation, but is less than the optimal level for robust dechlorination of CVOCs to occur.

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## Figures



**NOTES:**

- (1) Primary Pathway
- (2) Secondary Pathway

The tendency for degradation along a given pathway is dependent on various factors, such as oxidation-reduction conditions, microbiological conditions, or nutrient availability.

Vinyl chloride, 1,2-DCA and Chloroethane may undergo aerobic mineralization to CO<sub>2</sub>.

TCE, DCE, Vinyl chloride and 1,1-DCA may undergo aerobic cometabolism to CO<sub>2</sub>.

**Source(s):**

Weidemeier, T.H., H.S. Rifai, C.J. Newell and J.T. Wilson, 1999.  
 Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface, John Wiley & Sons, Inc., U.S.A.

U.S.EPA, September 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, EPA/600/R-98/128.

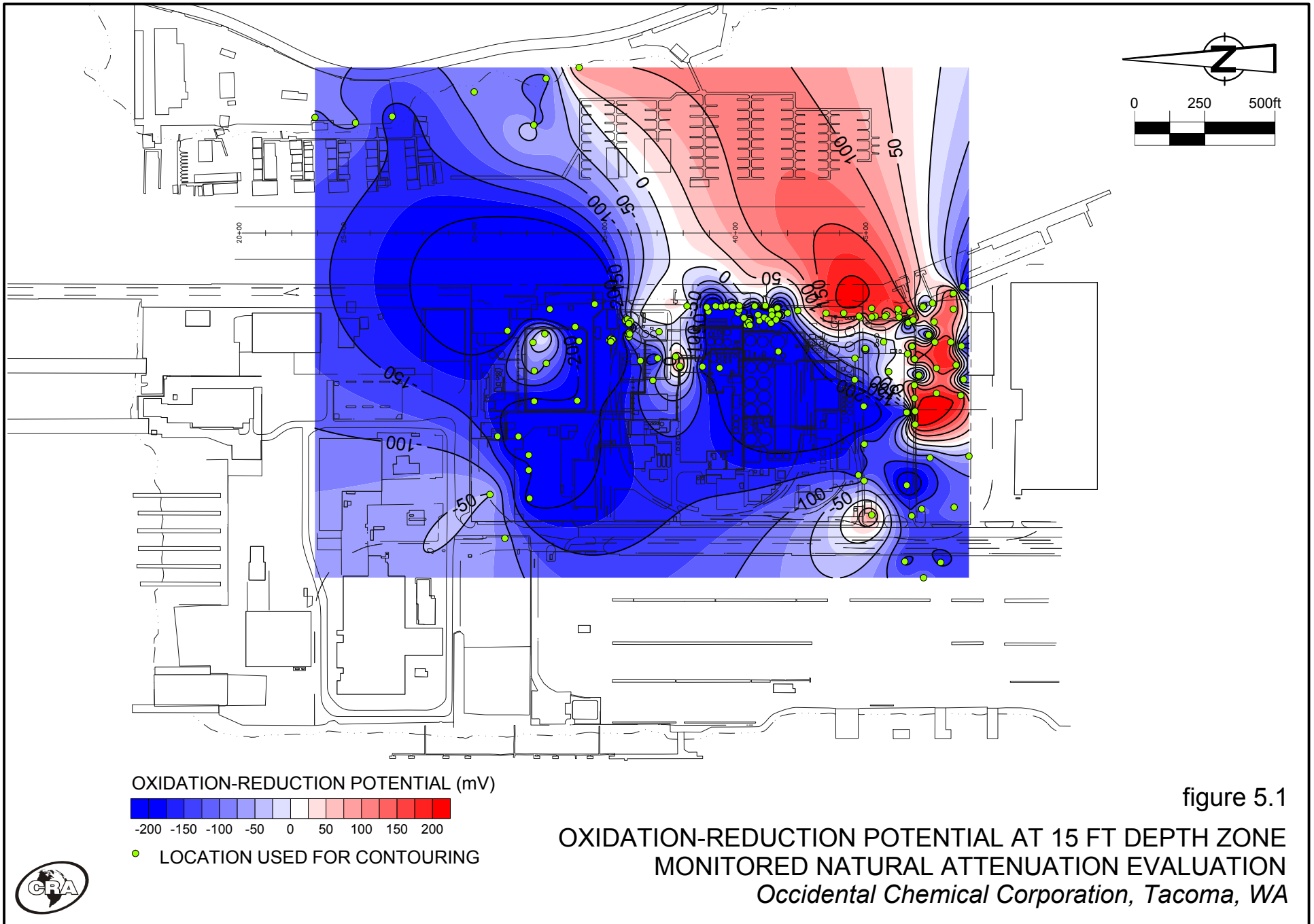
**LEGEND**

- > BIOTIC PATHWAYS
- - - -> ABIOTIC PATHWAYS

figure 2.1

**OVERVIEW OF DEGRADATION PATHWAYS  
 FOR CHLORINATED ALIPHATIC HYDROCARBONS**  
*Occidental Chemical Corporation, Tacoma, Washington*





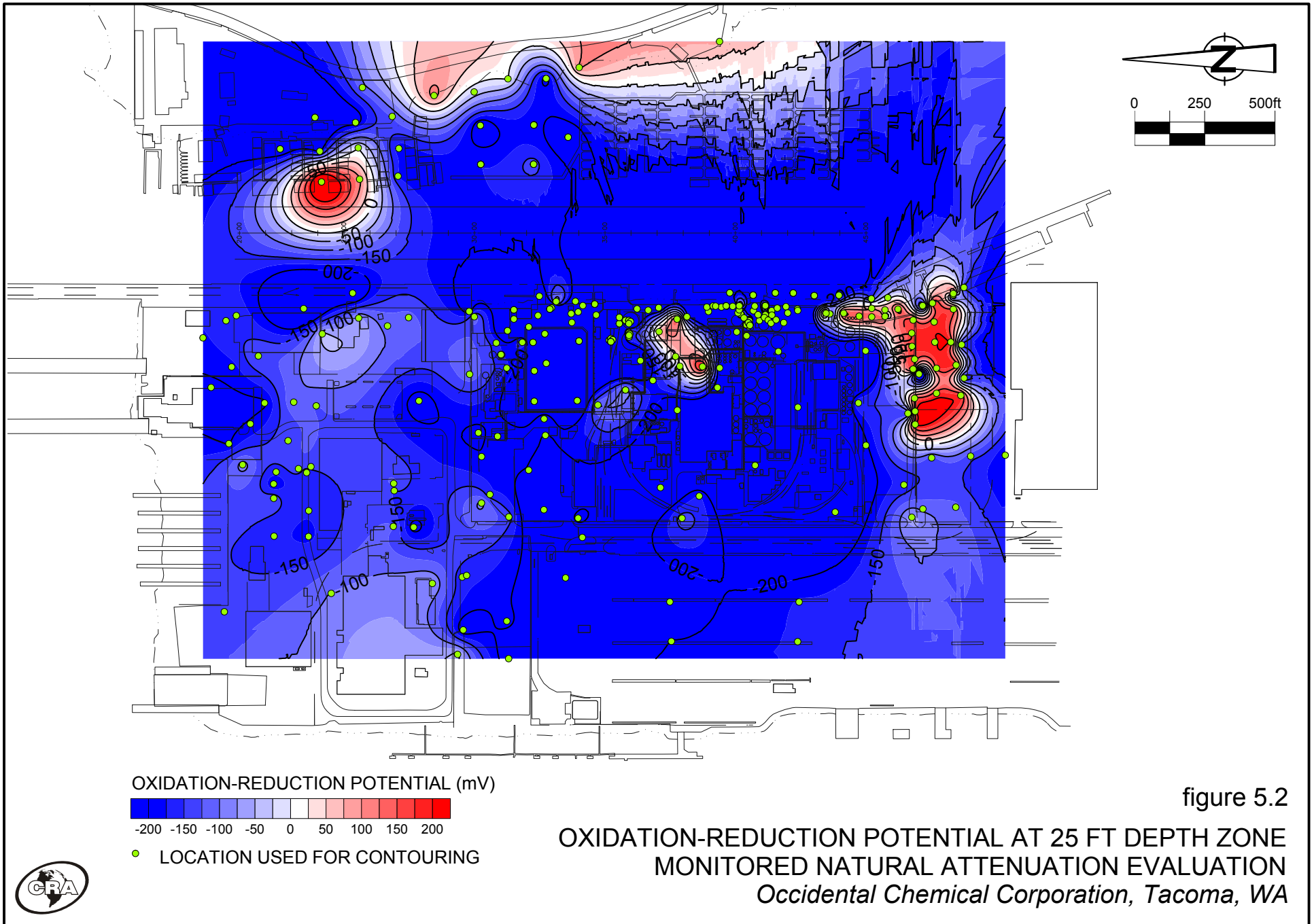
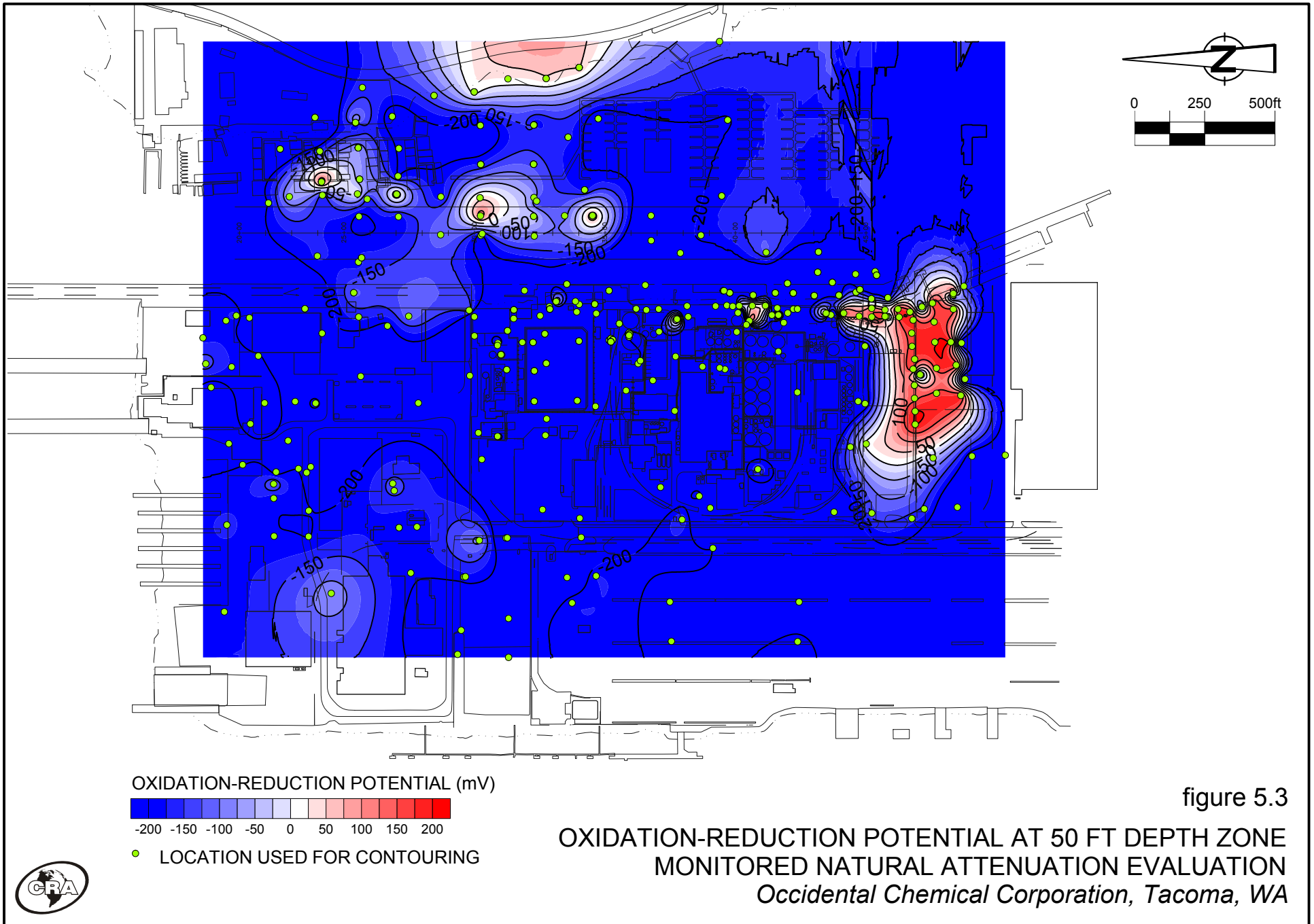


figure 5.2

**OXIDATION-REDUCTION POTENTIAL AT 25 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***







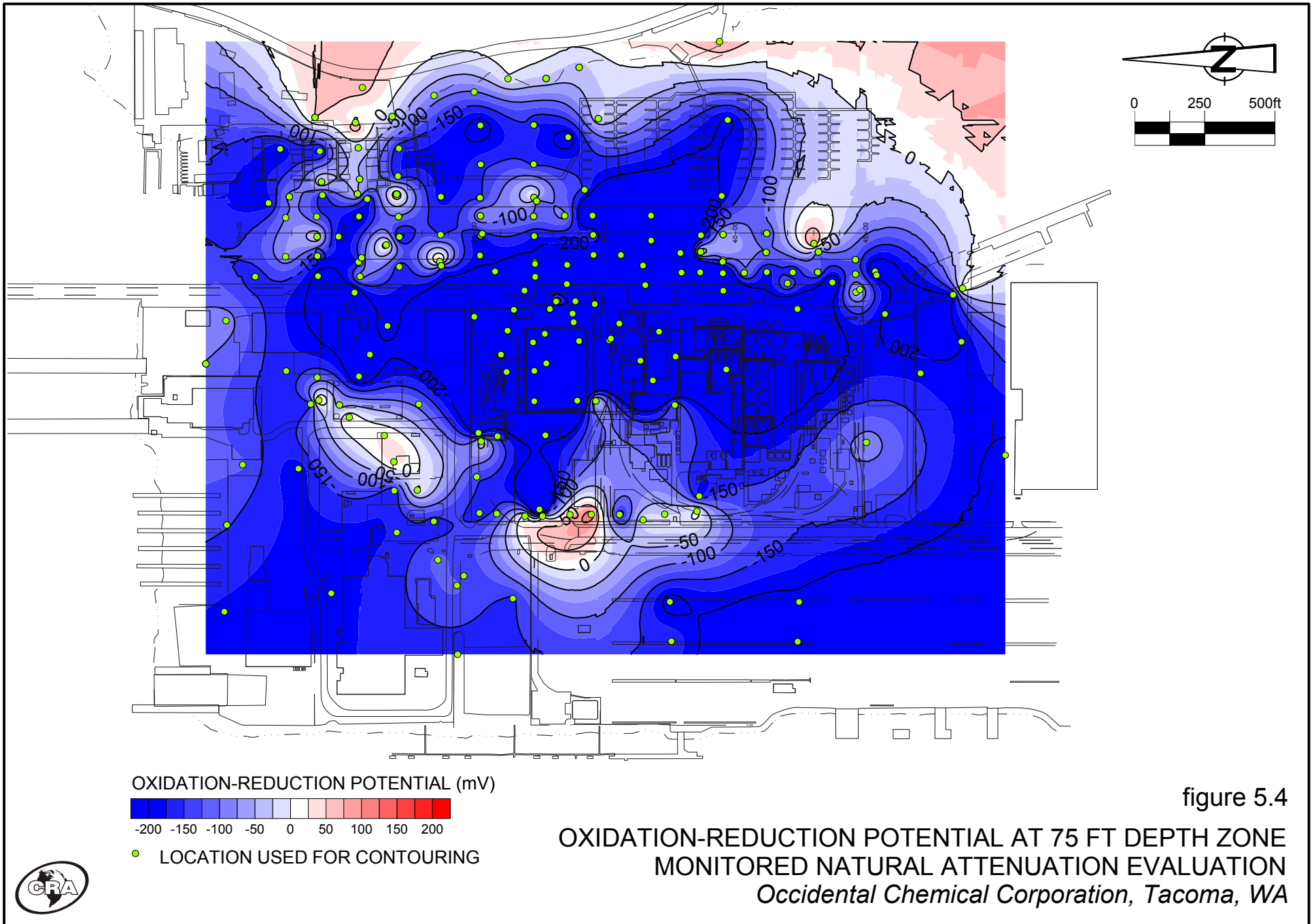


figure 5.4

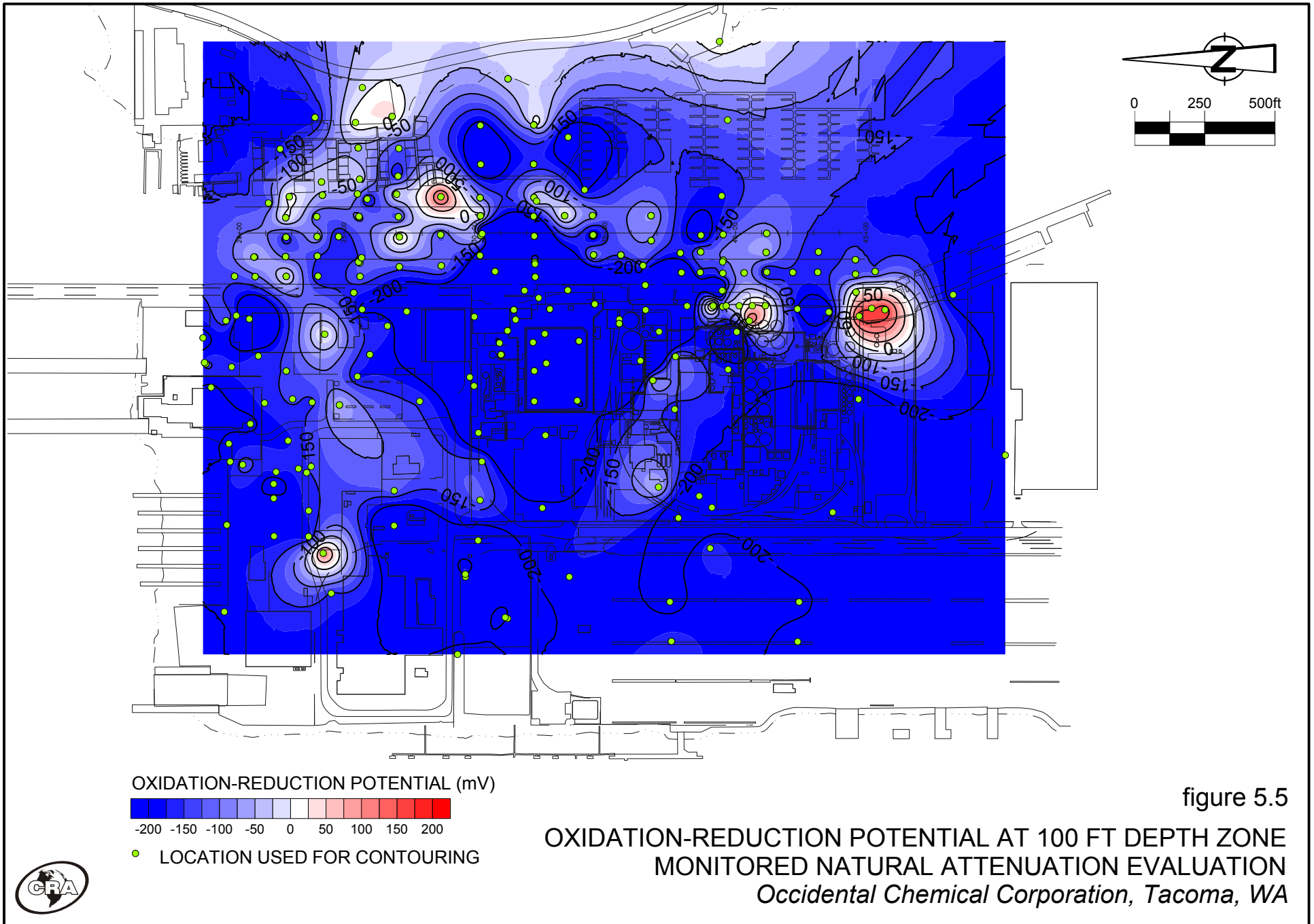


figure 5.5

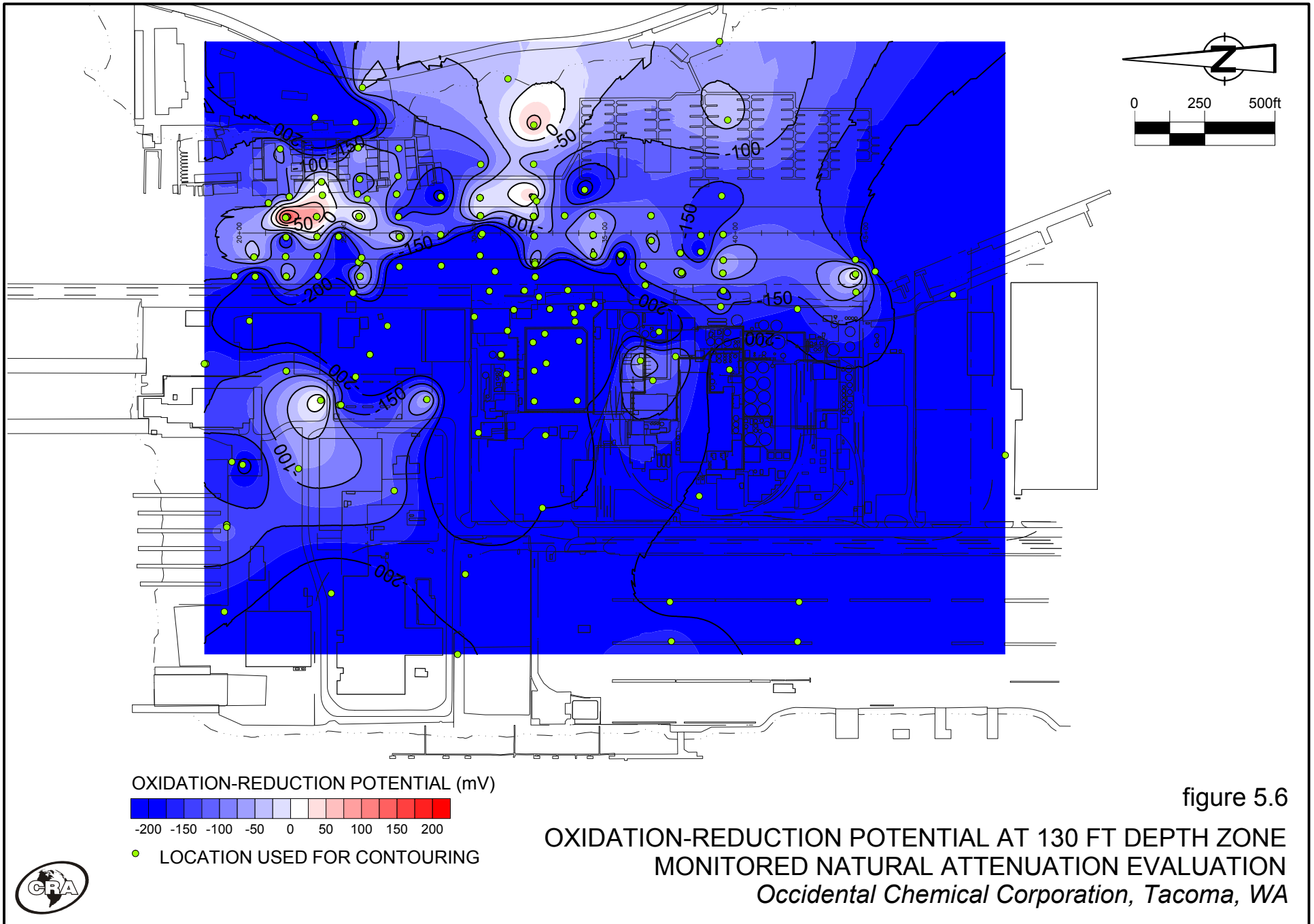


figure 5.6

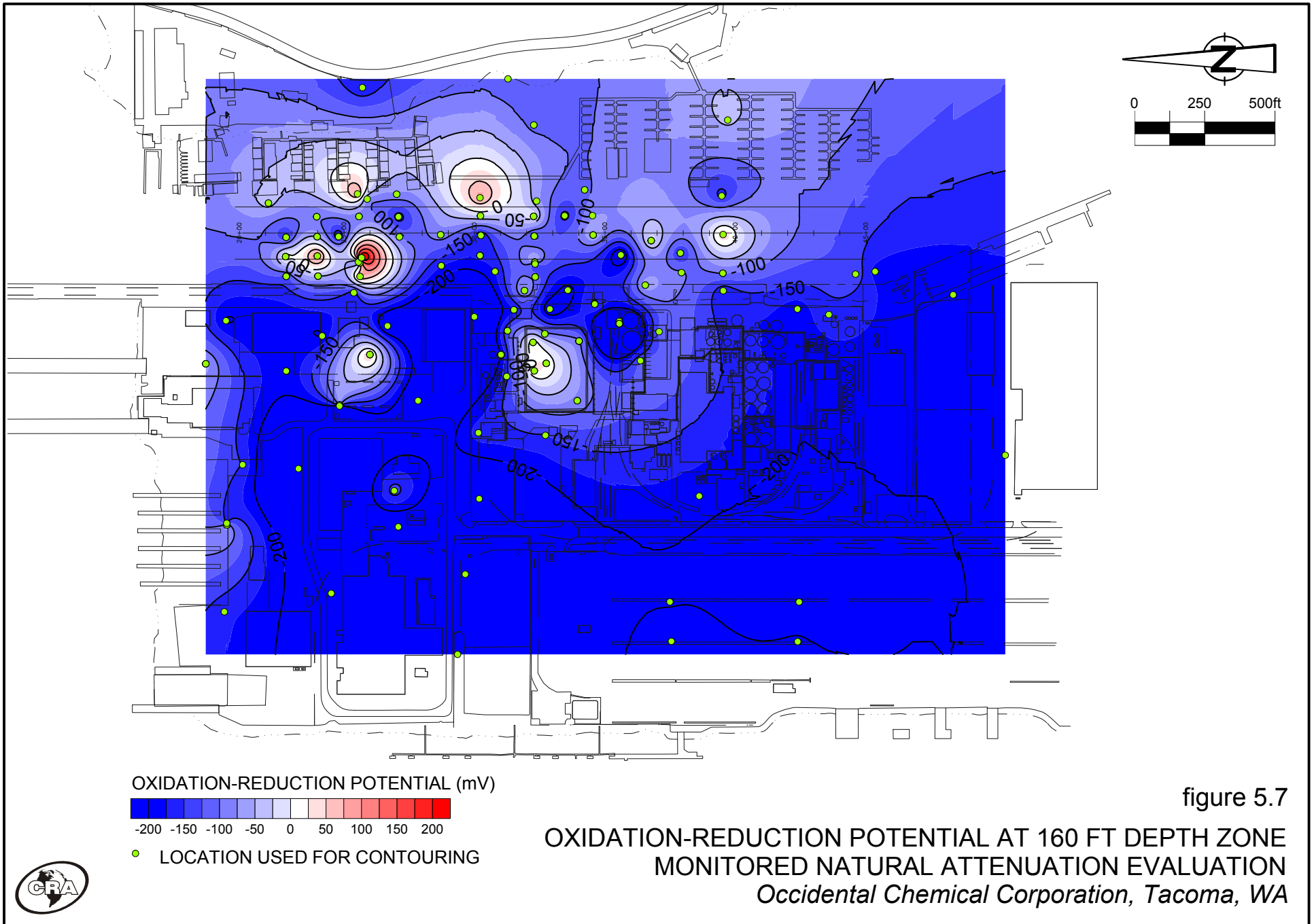
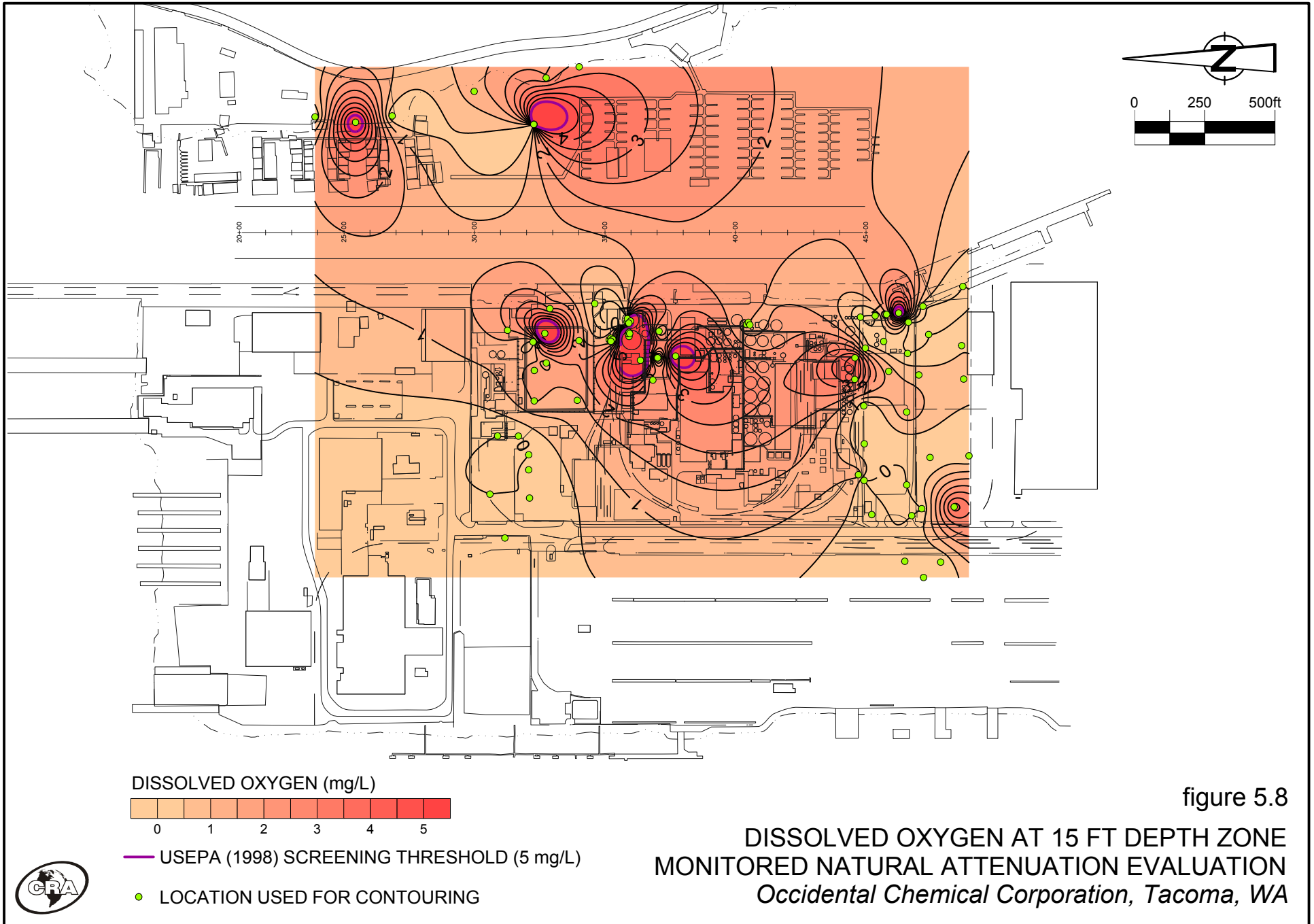
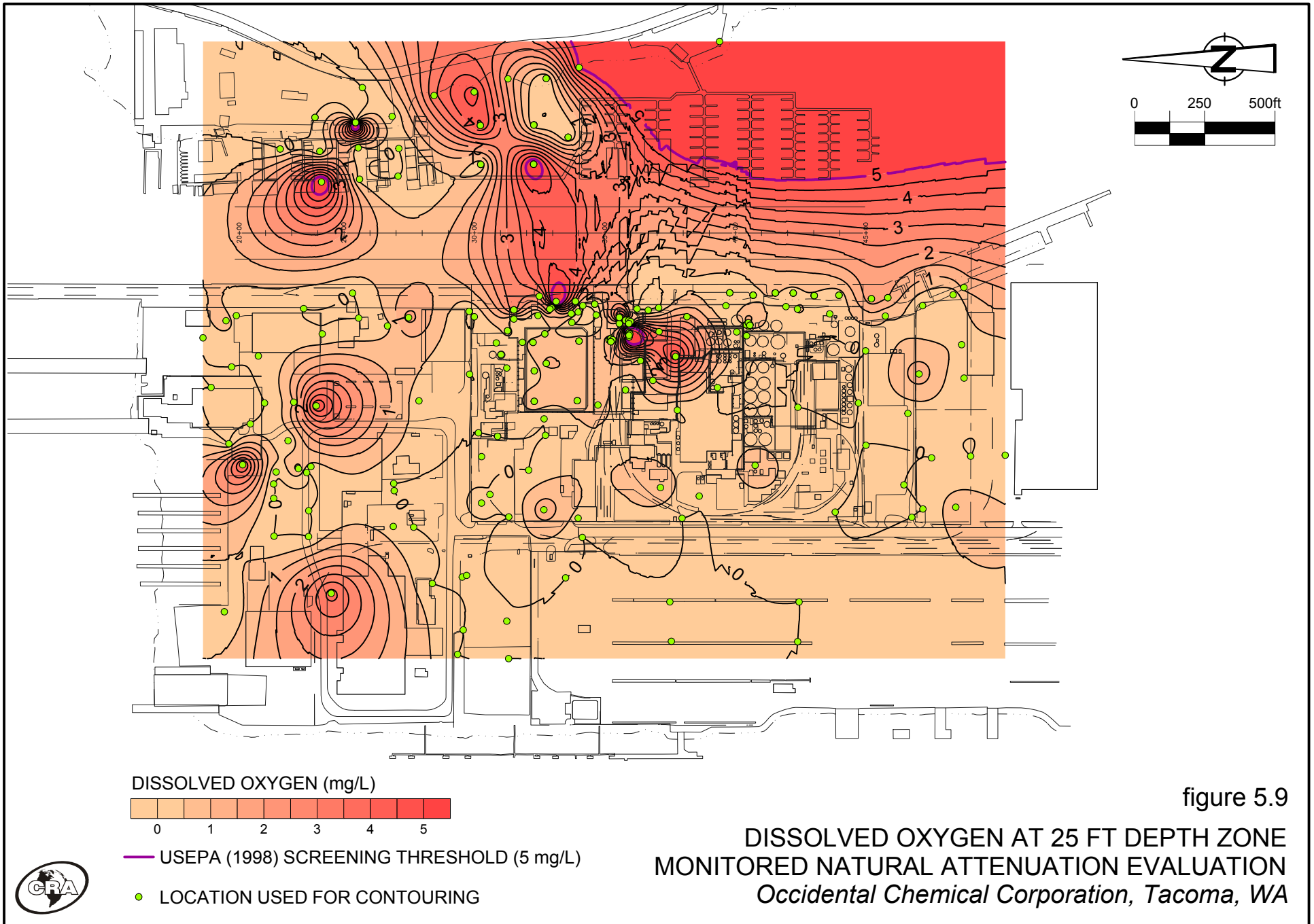
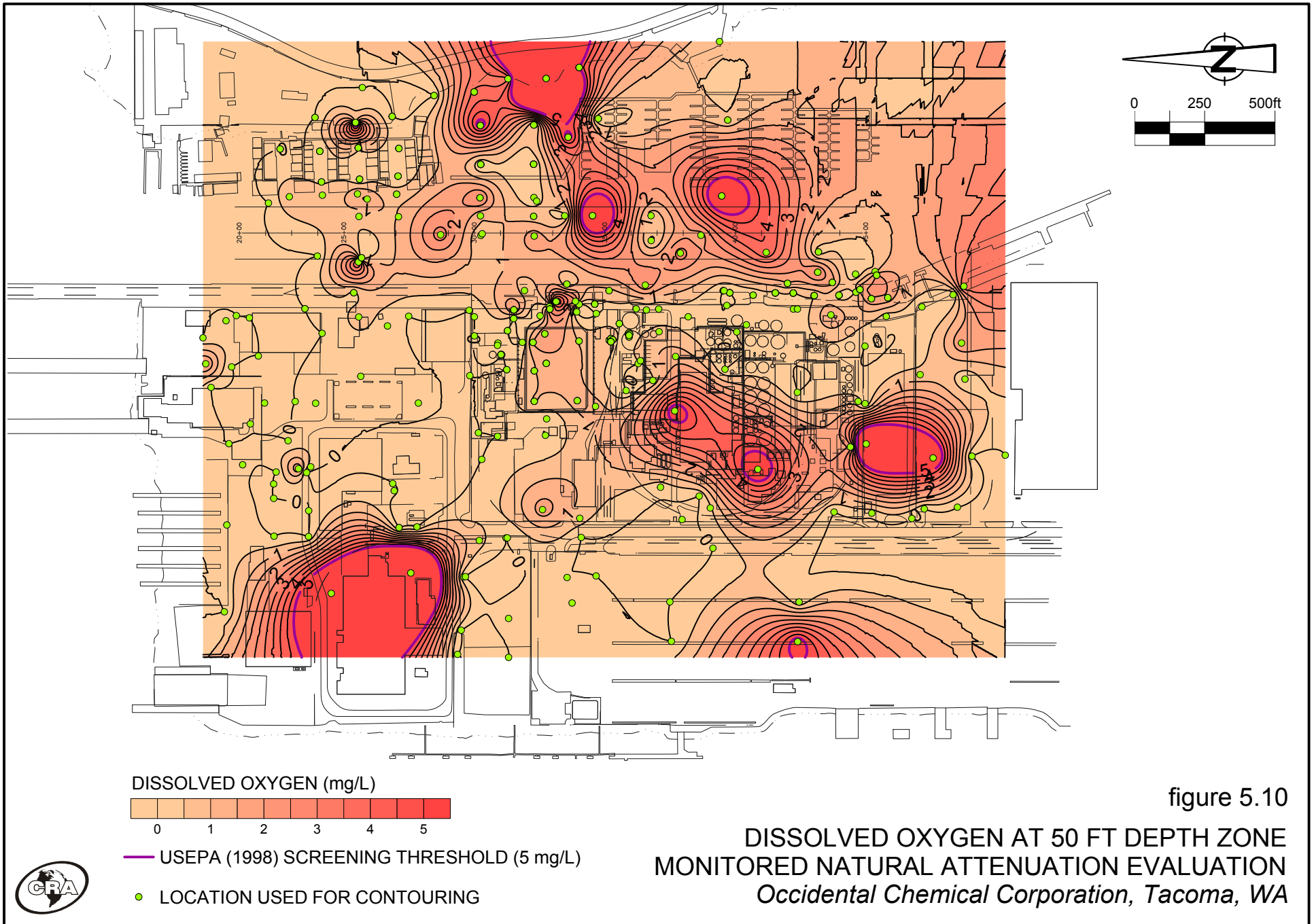
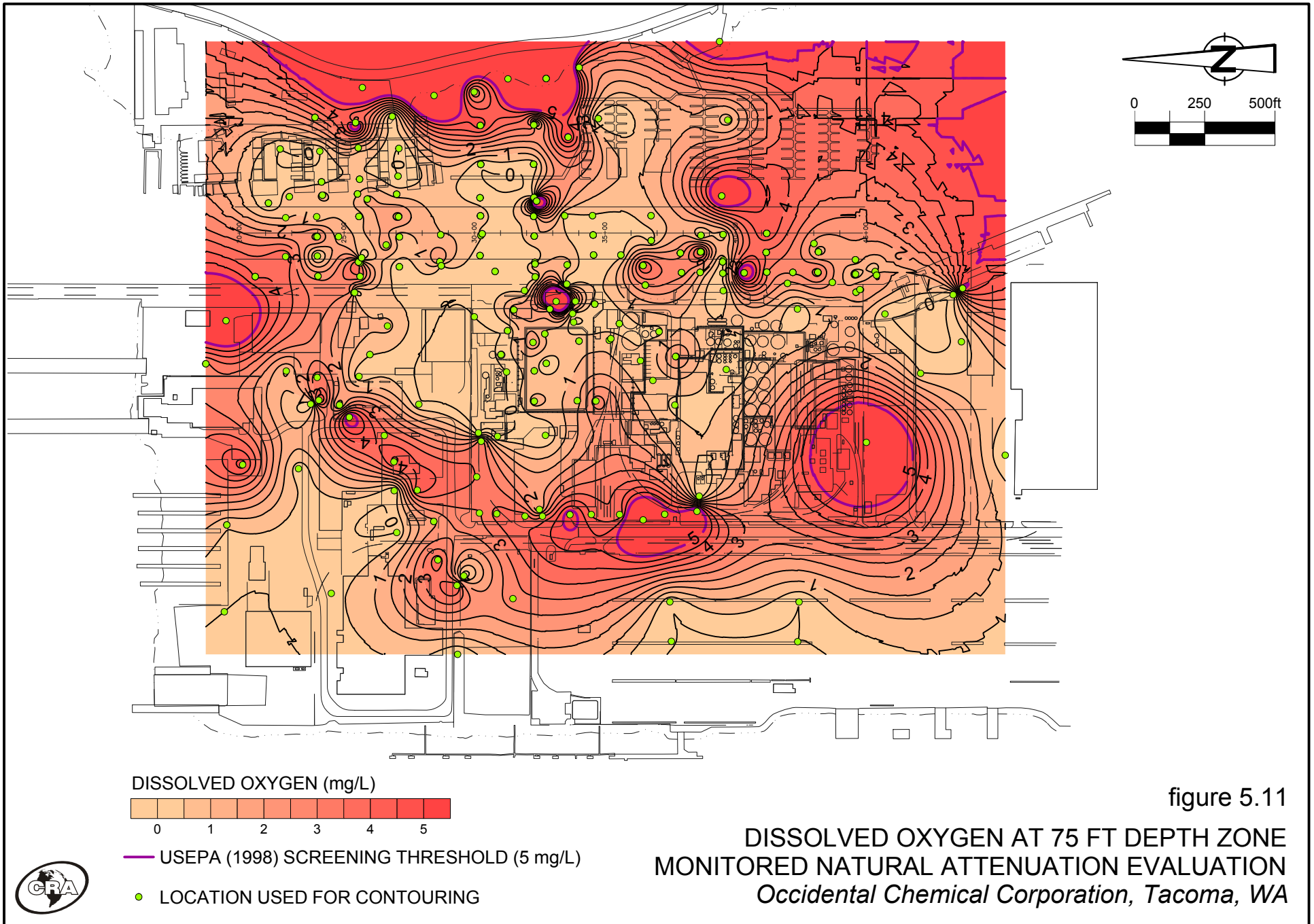


figure 5.7











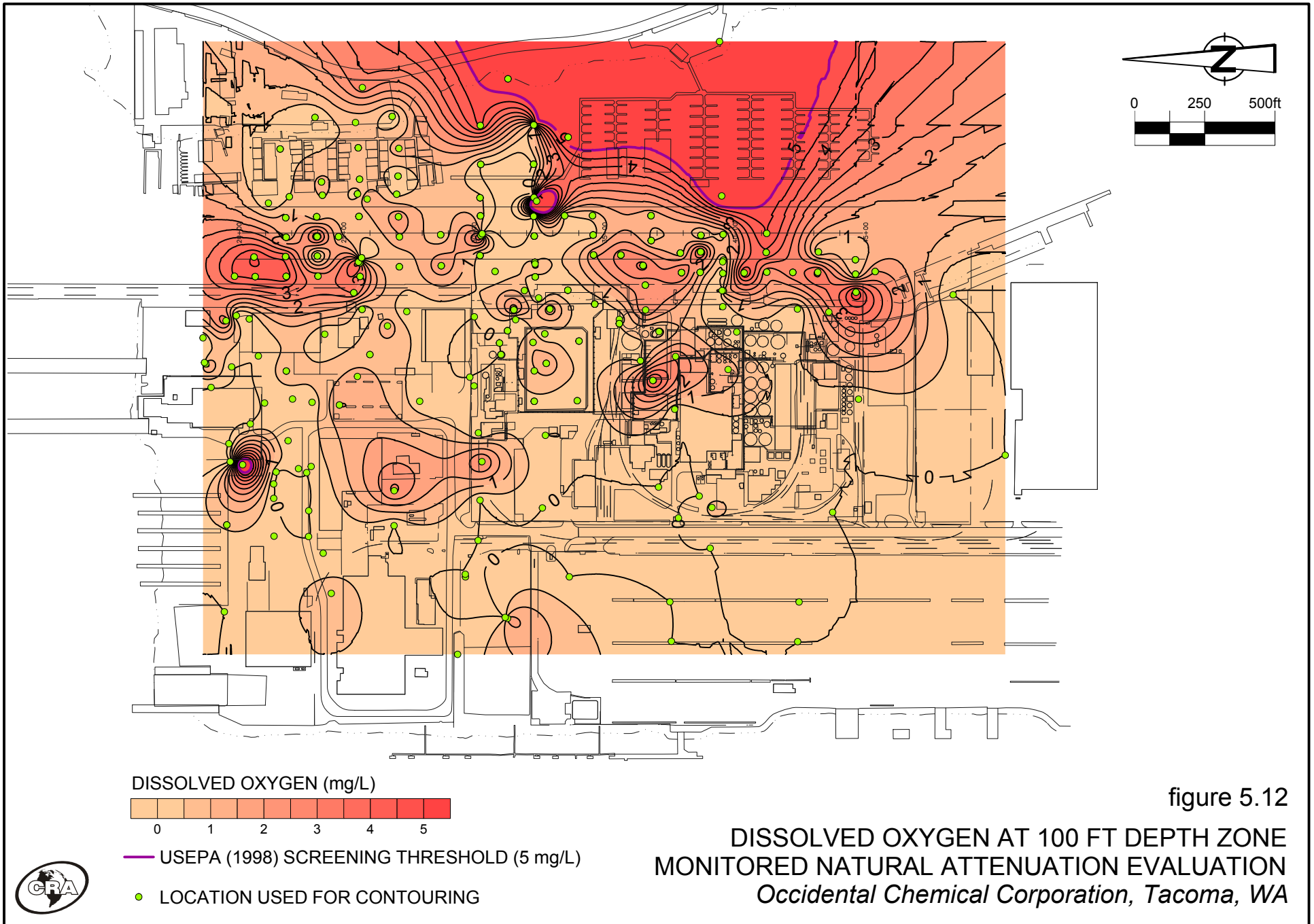
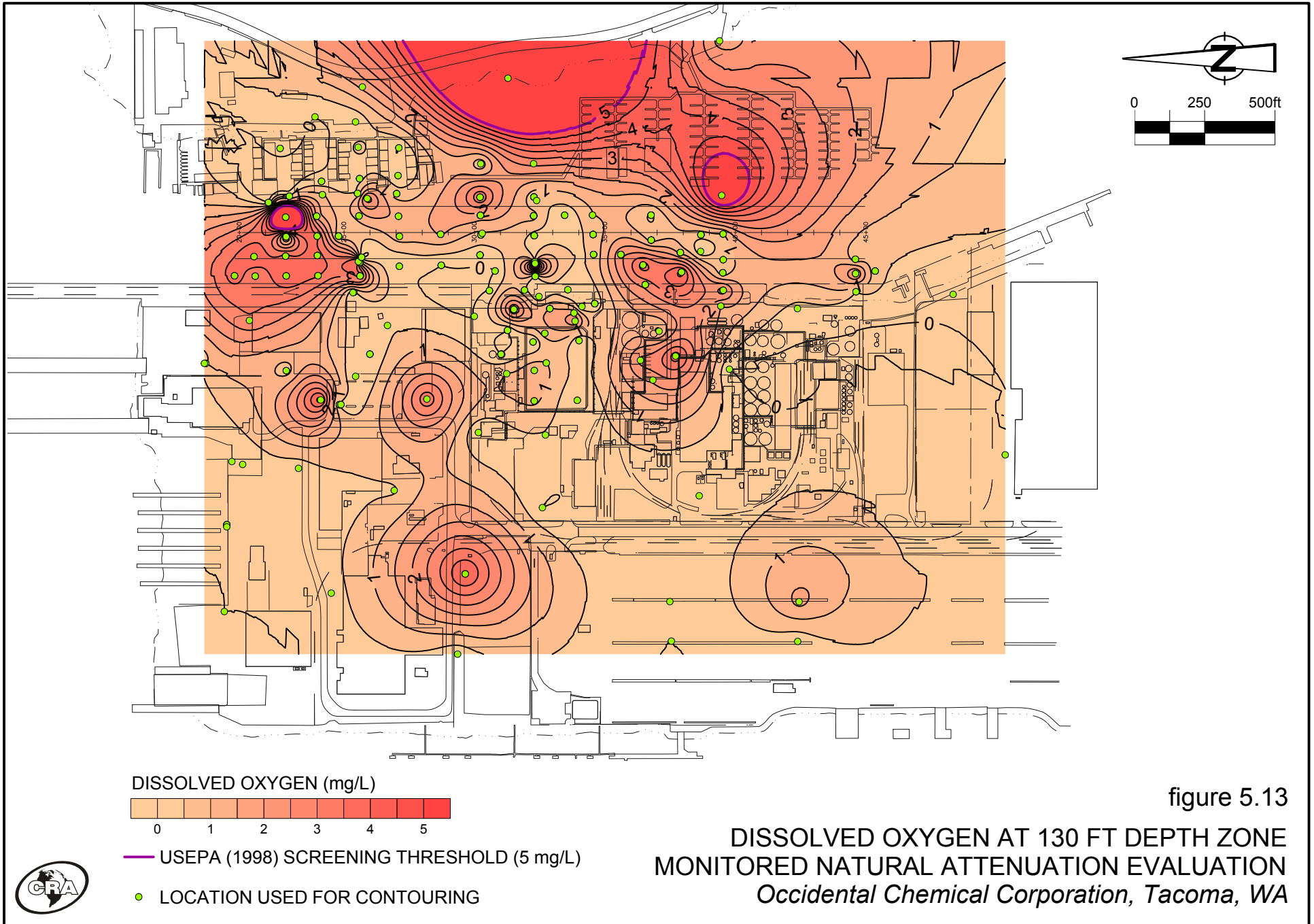
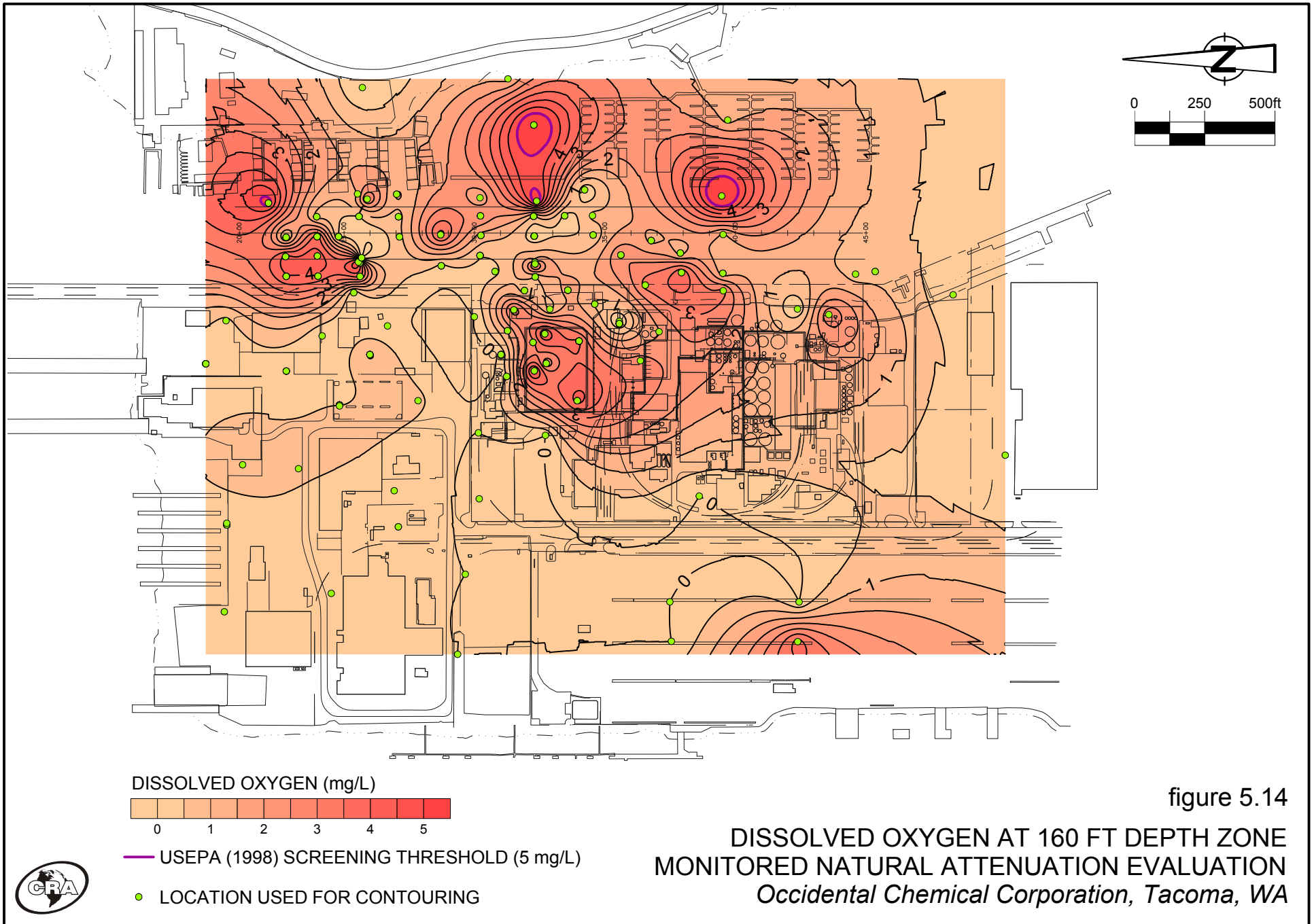


figure 5.12  
 DISSOLVED OXYGEN AT 100 FT DEPTH ZONE  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*







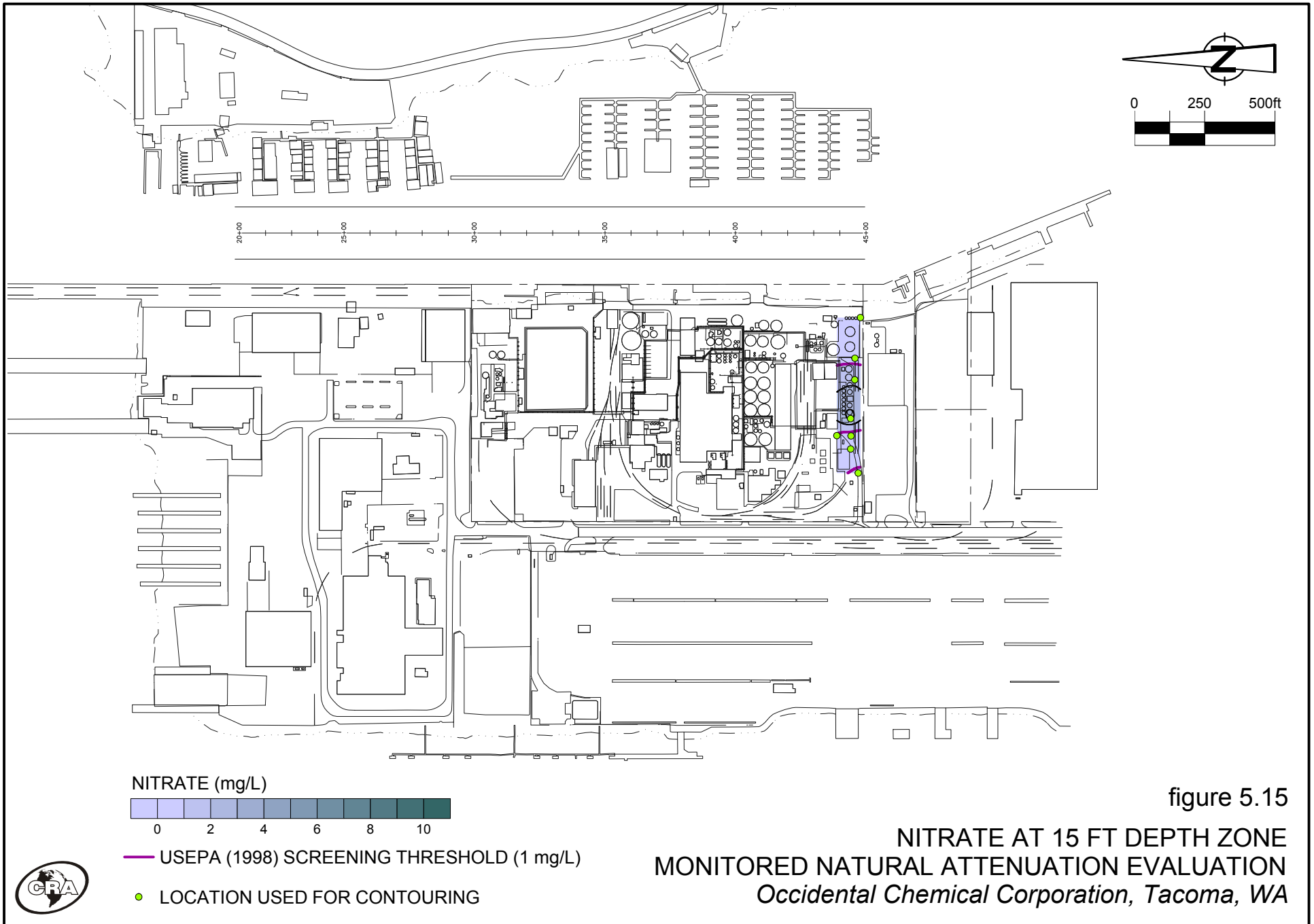


figure 5.15

NITRATE AT 15 FT DEPTH ZONE  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*



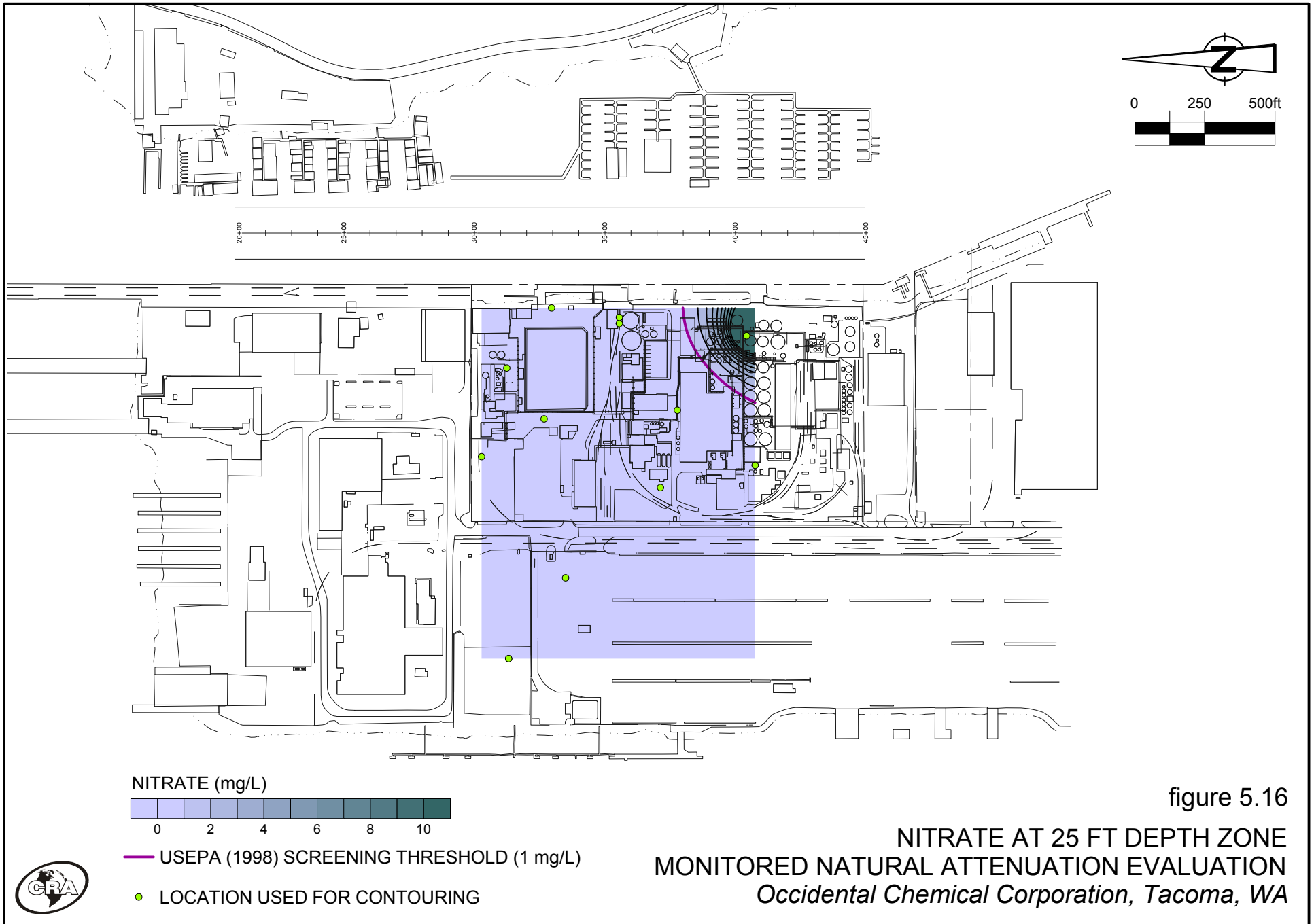
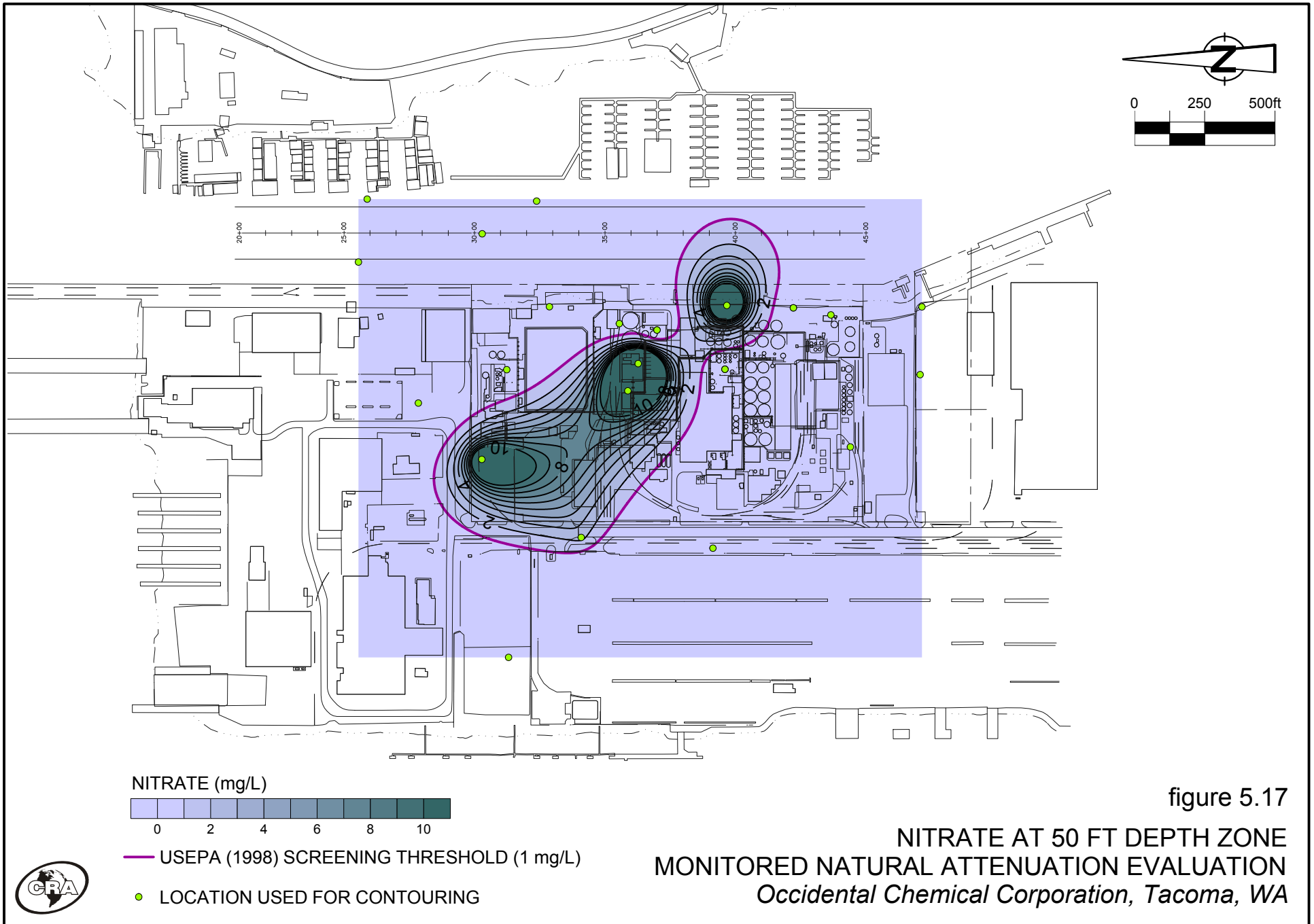


figure 5.16

**NITRATE AT 25 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***





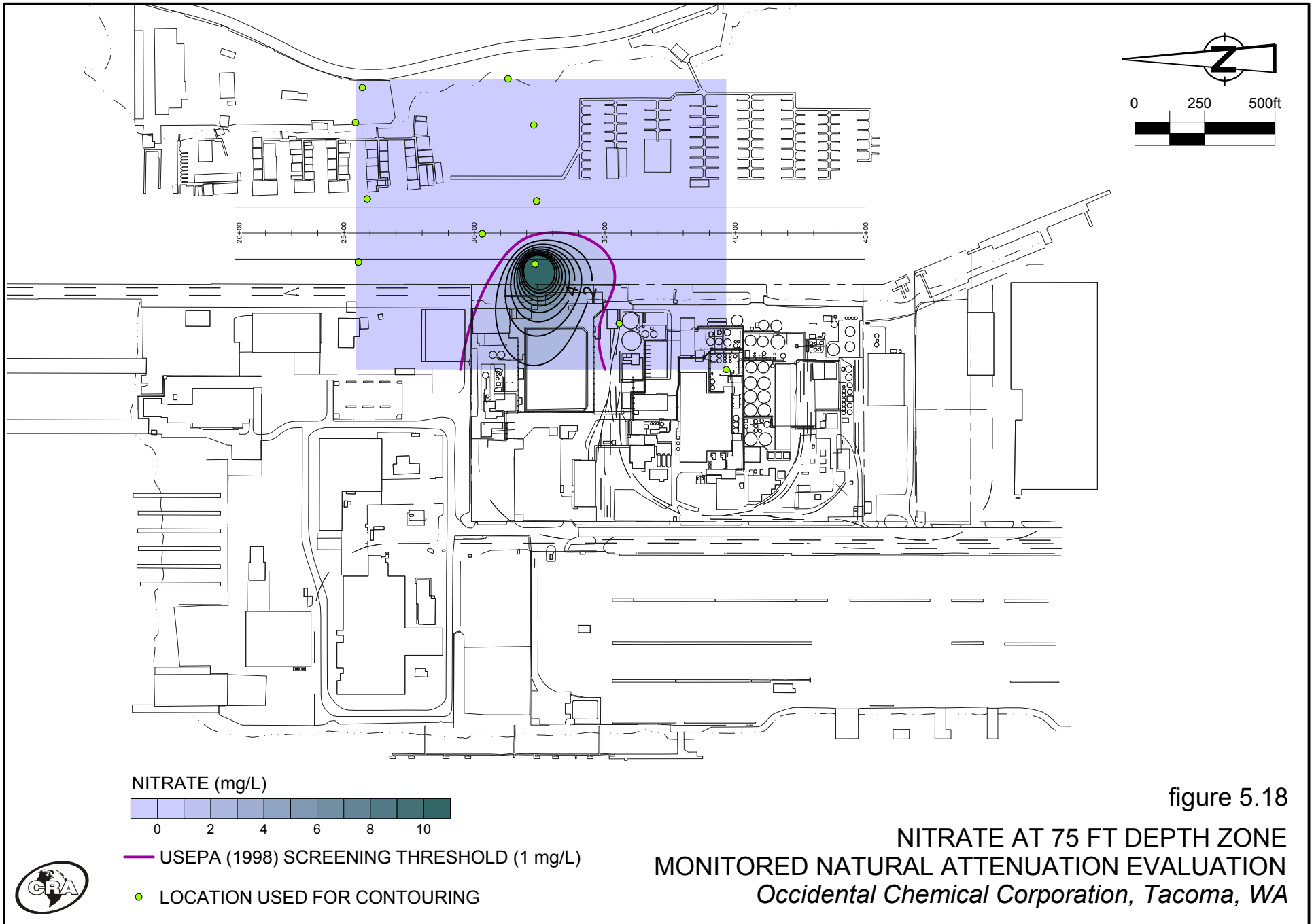
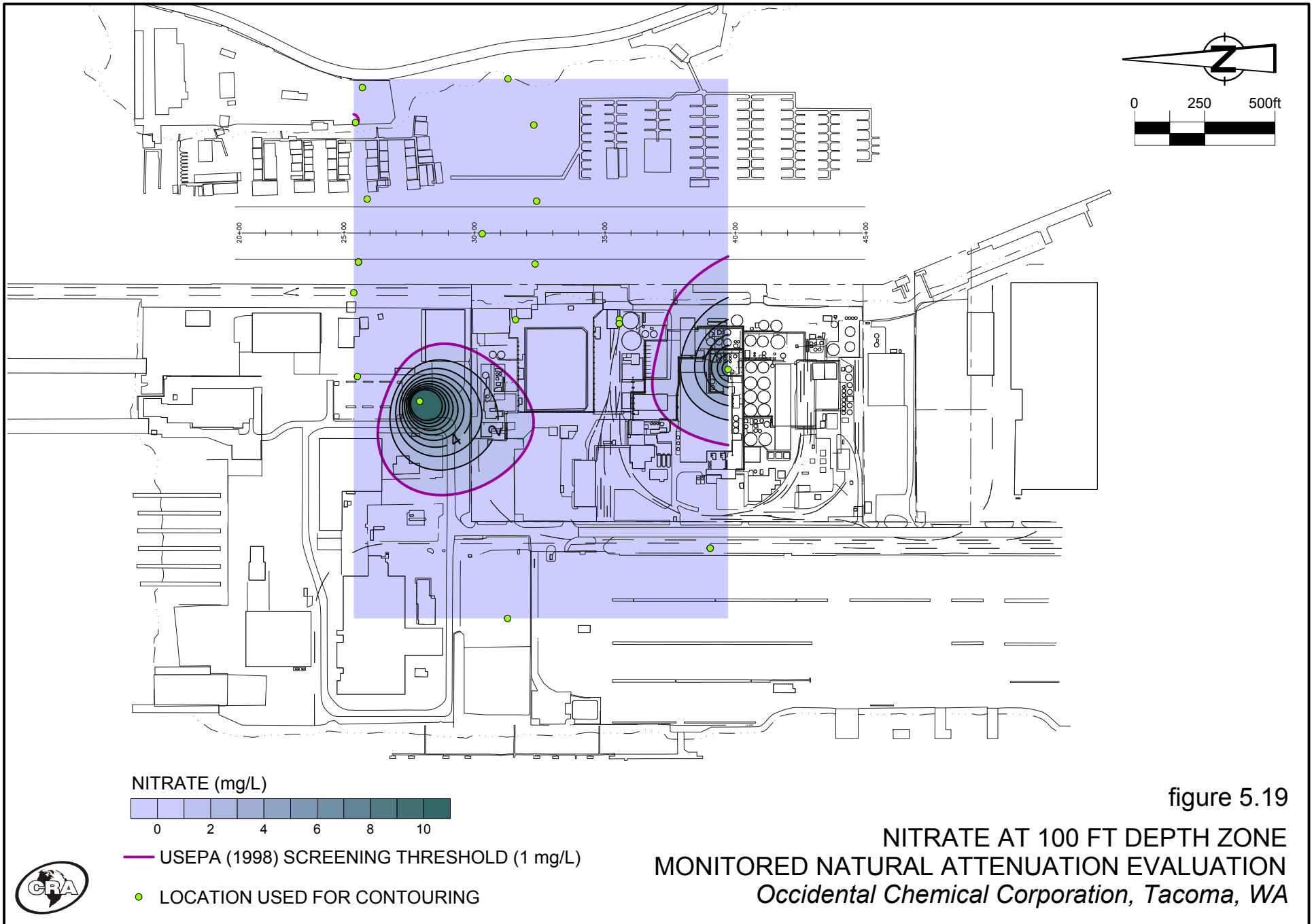


figure 5.18

**NITRATE AT 75 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***





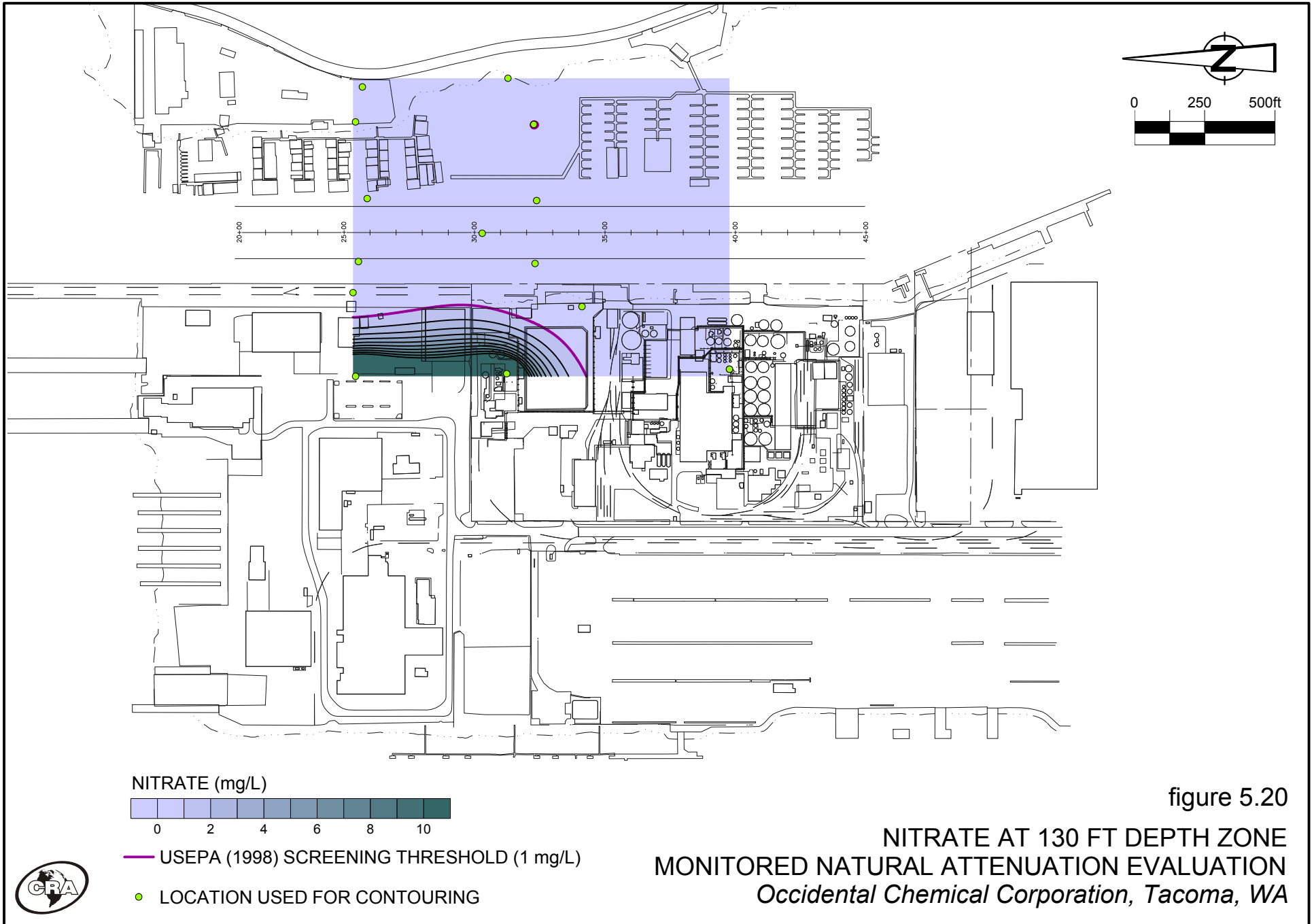
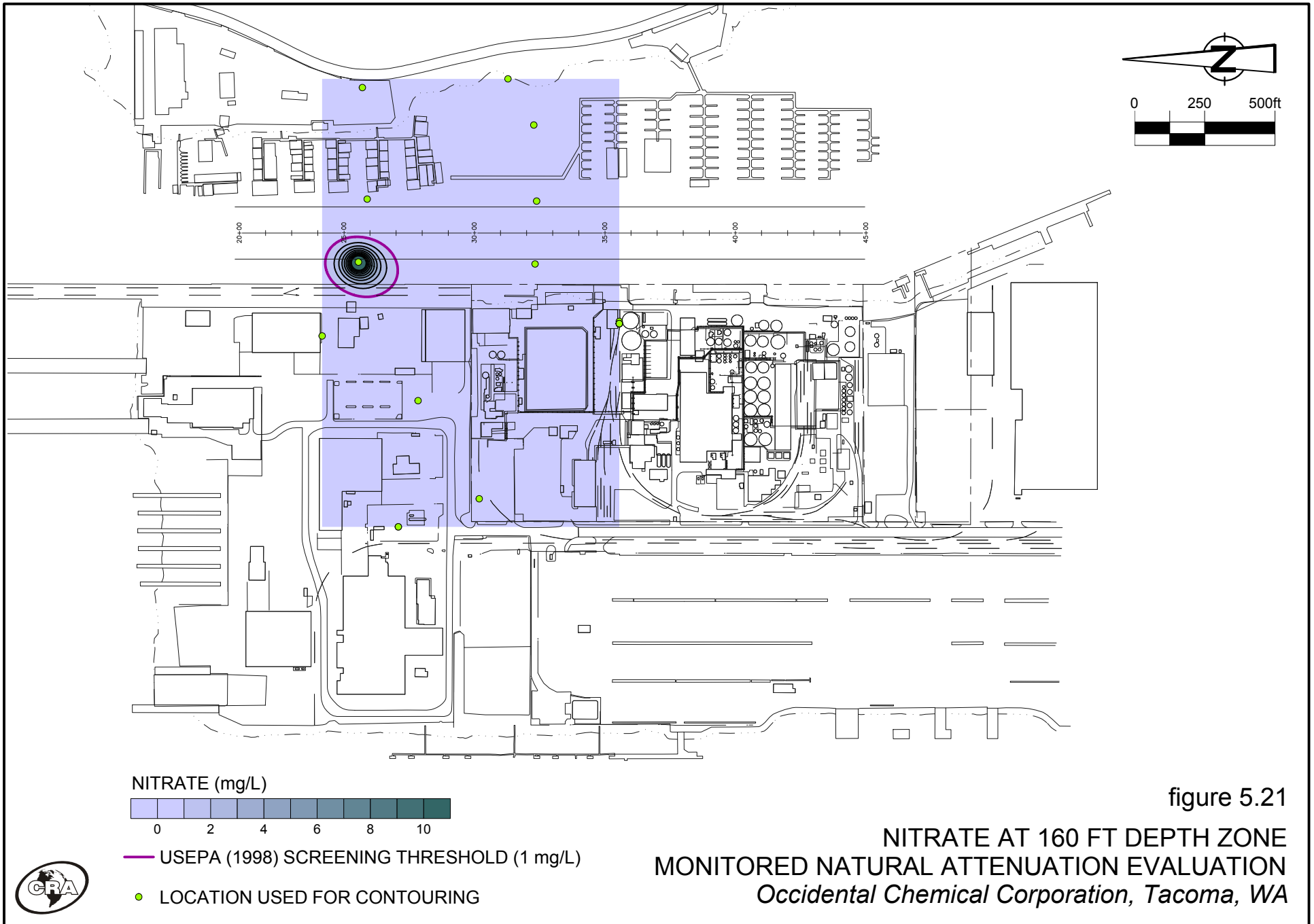


figure 5.20

**NITRATE AT 130 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
Occidental Chemical Corporation, Tacoma, WA**





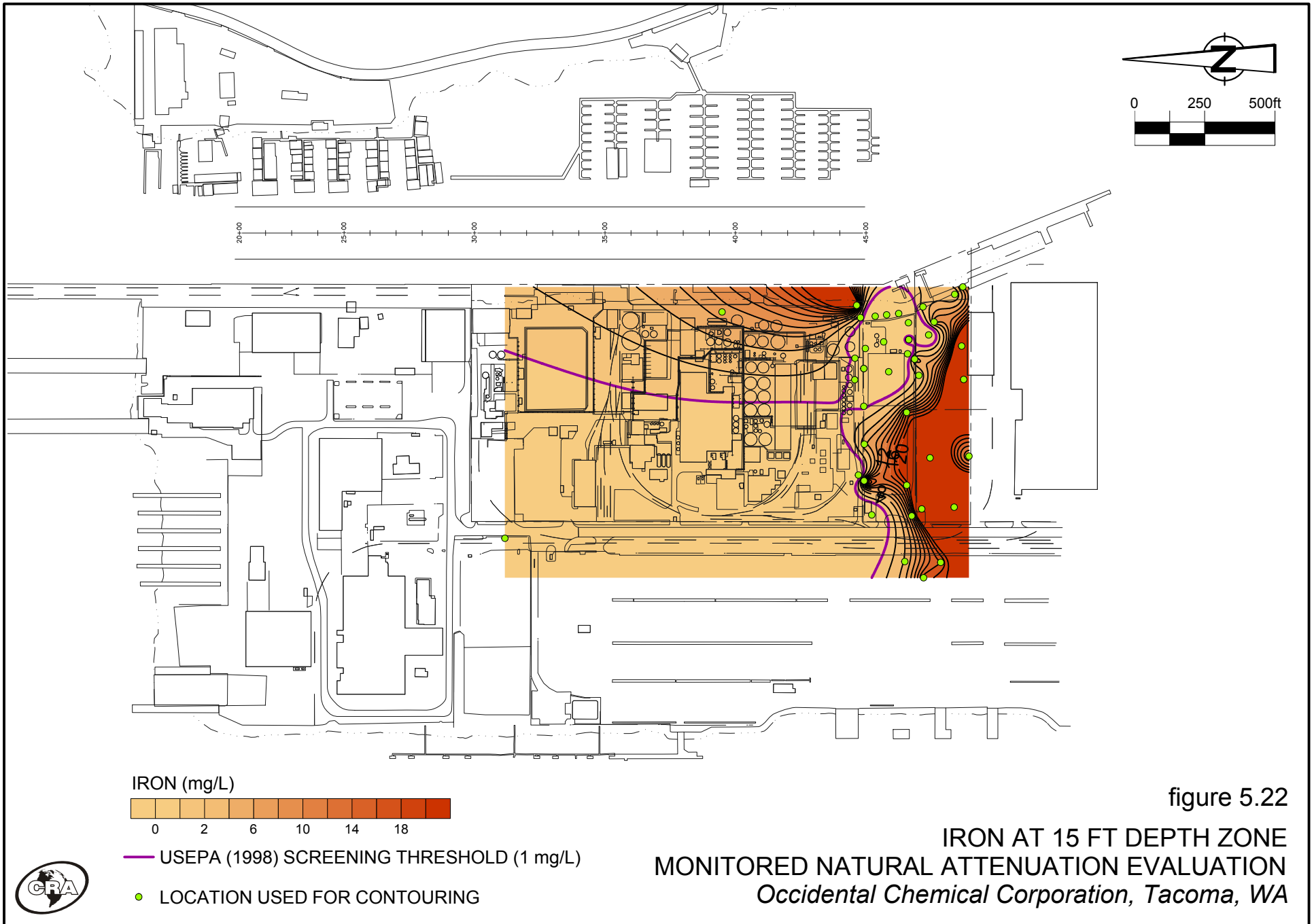


figure 5.22

**IRON AT 15 FT DEPTH ZONE**  
**MONITORED NATURAL ATTENUATION EVALUATION**  
*Occidental Chemical Corporation, Tacoma, WA*

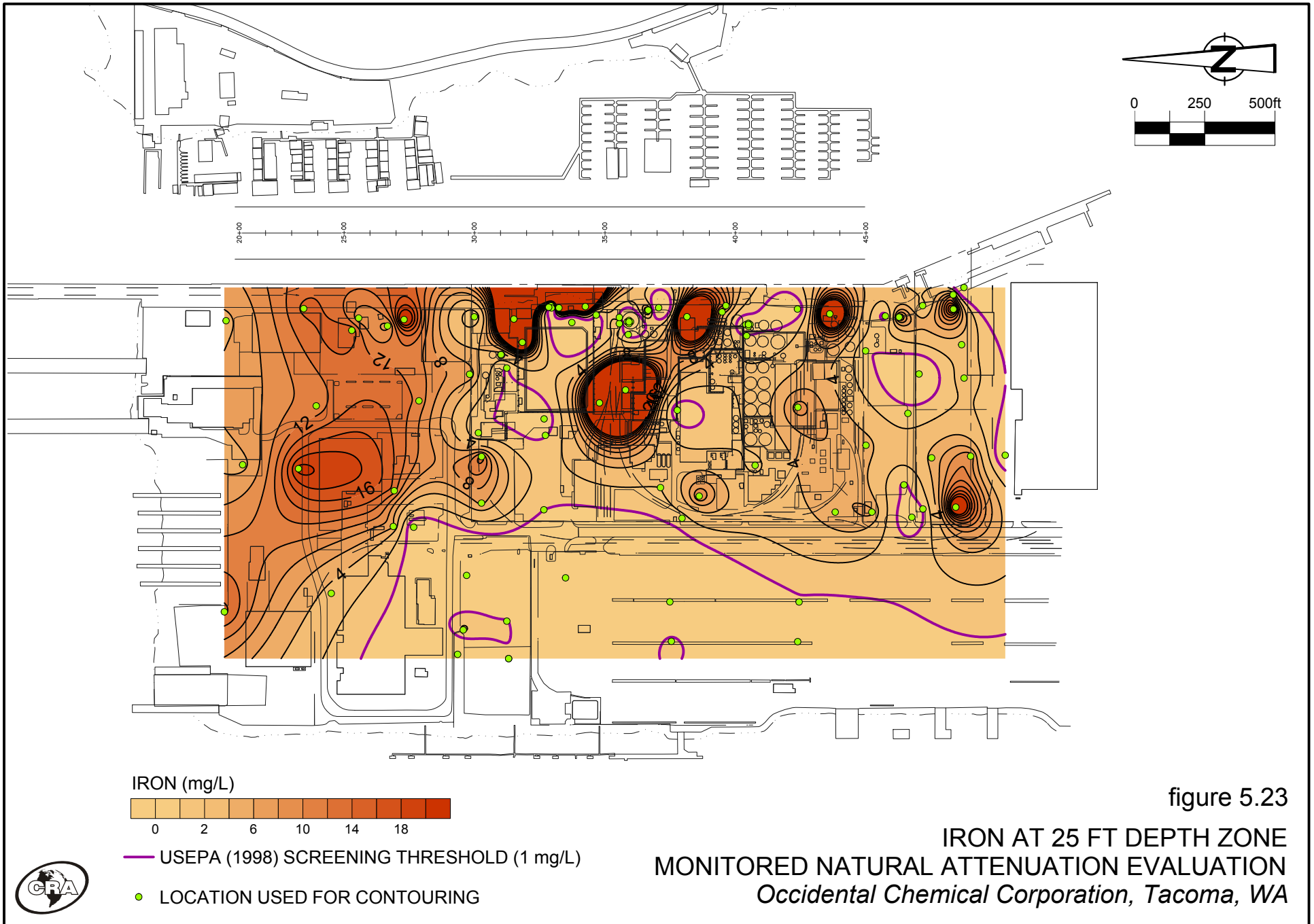


figure 5.23

**IRON AT 25 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***



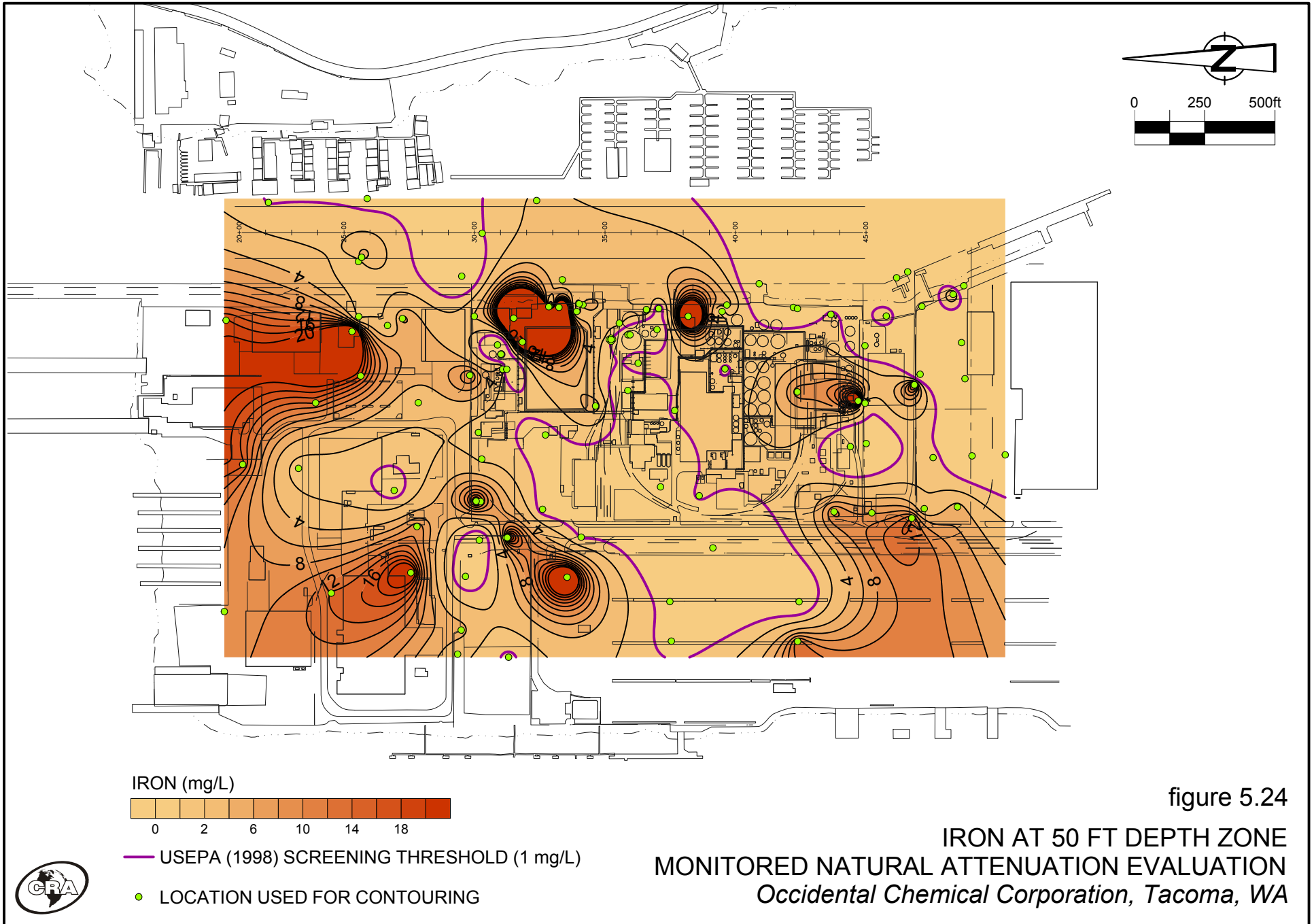


figure 5.24

**IRON AT 50 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***



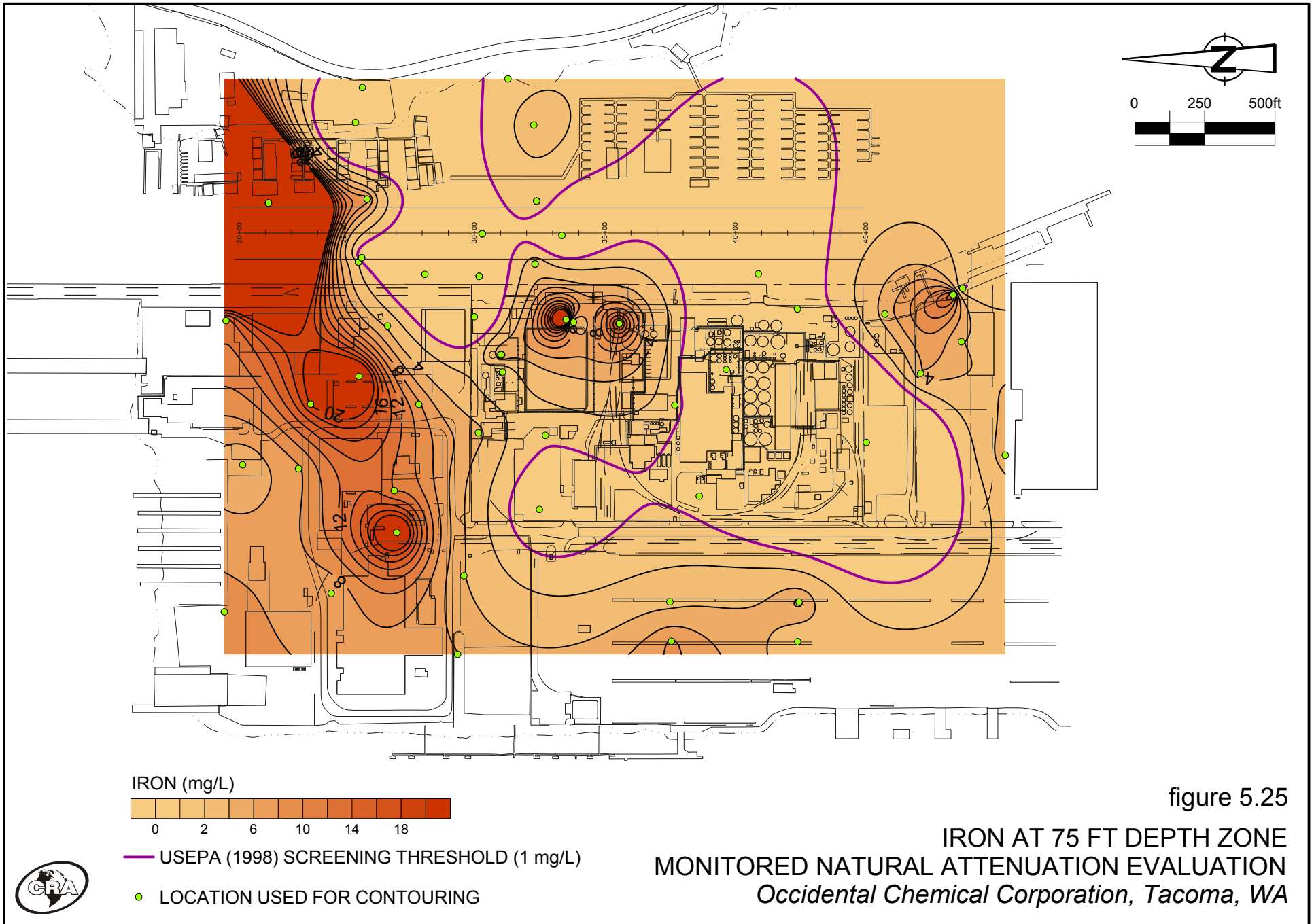


figure 5.25

**IRON AT 75 FT DEPTH ZONE**  
**MONITORED NATURAL ATTENUATION EVALUATION**  
*Occidental Chemical Corporation, Tacoma, WA*



- IRON (mg/L)**
- |   |   |   |    |    |    |  |  |  |  |  |  |  |  |  |  |
|---|---|---|----|----|----|--|--|--|--|--|--|--|--|--|--|
|   |   |   |    |    |    |  |  |  |  |  |  |  |  |  |  |
| 0 | 2 | 6 | 10 | 14 | 18 |  |  |  |  |  |  |  |  |  |  |
- USEPA (1998) SCREENING THRESHOLD (1 mg/L)
  - LOCATION USED FOR CONTOURING

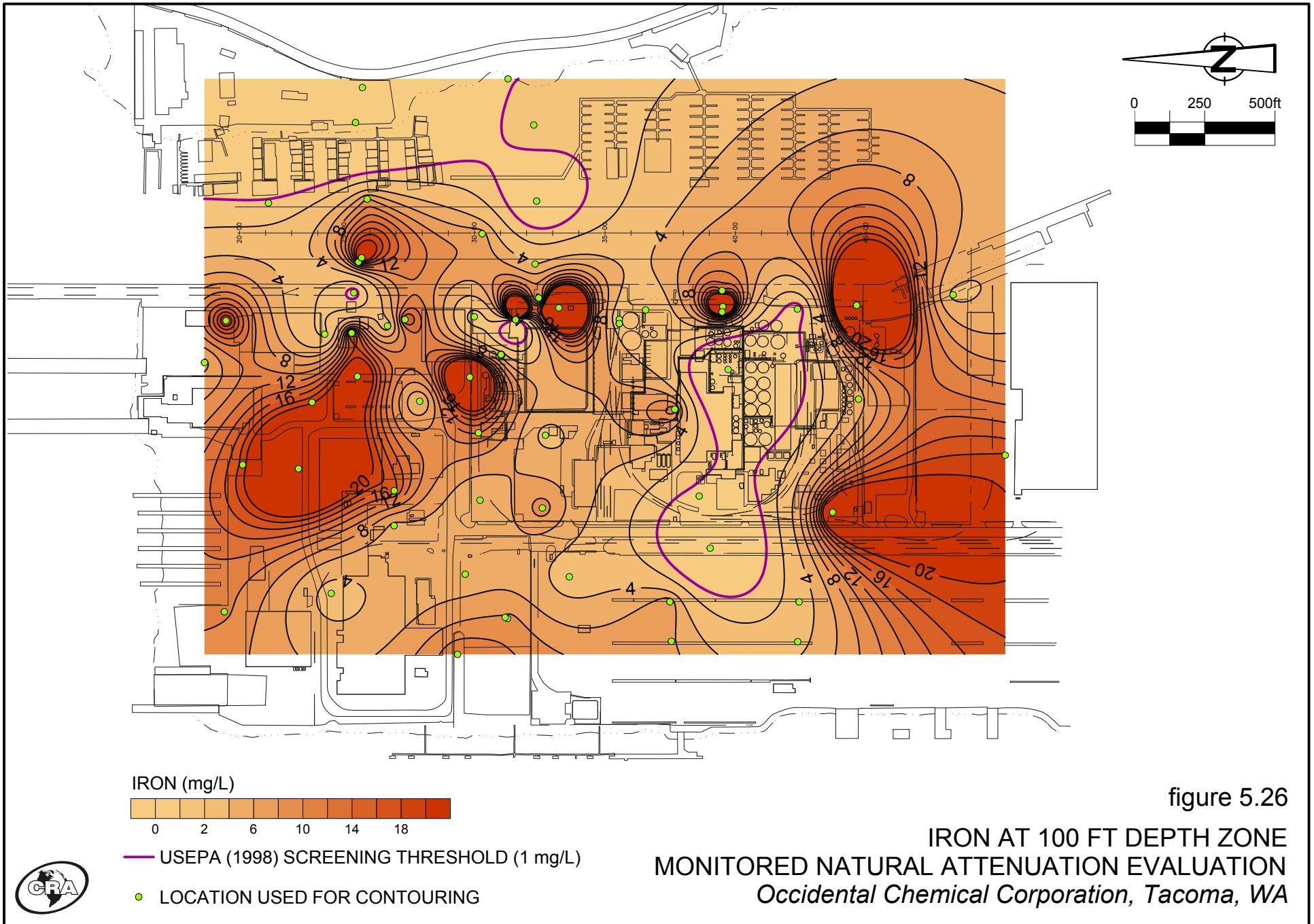


figure 5.26

**IRON AT 100 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
Occidental Chemical Corporation, Tacoma, WA**

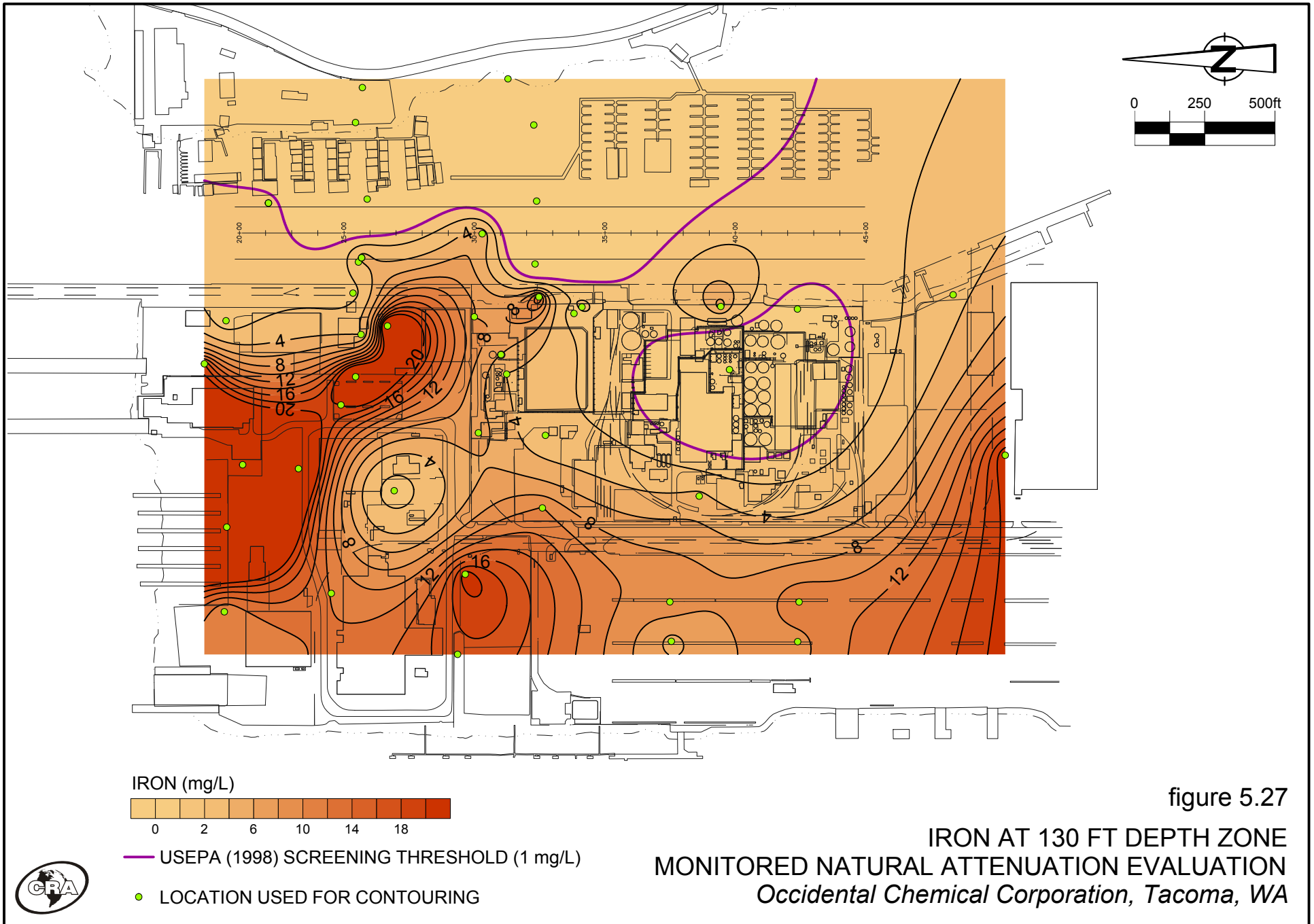
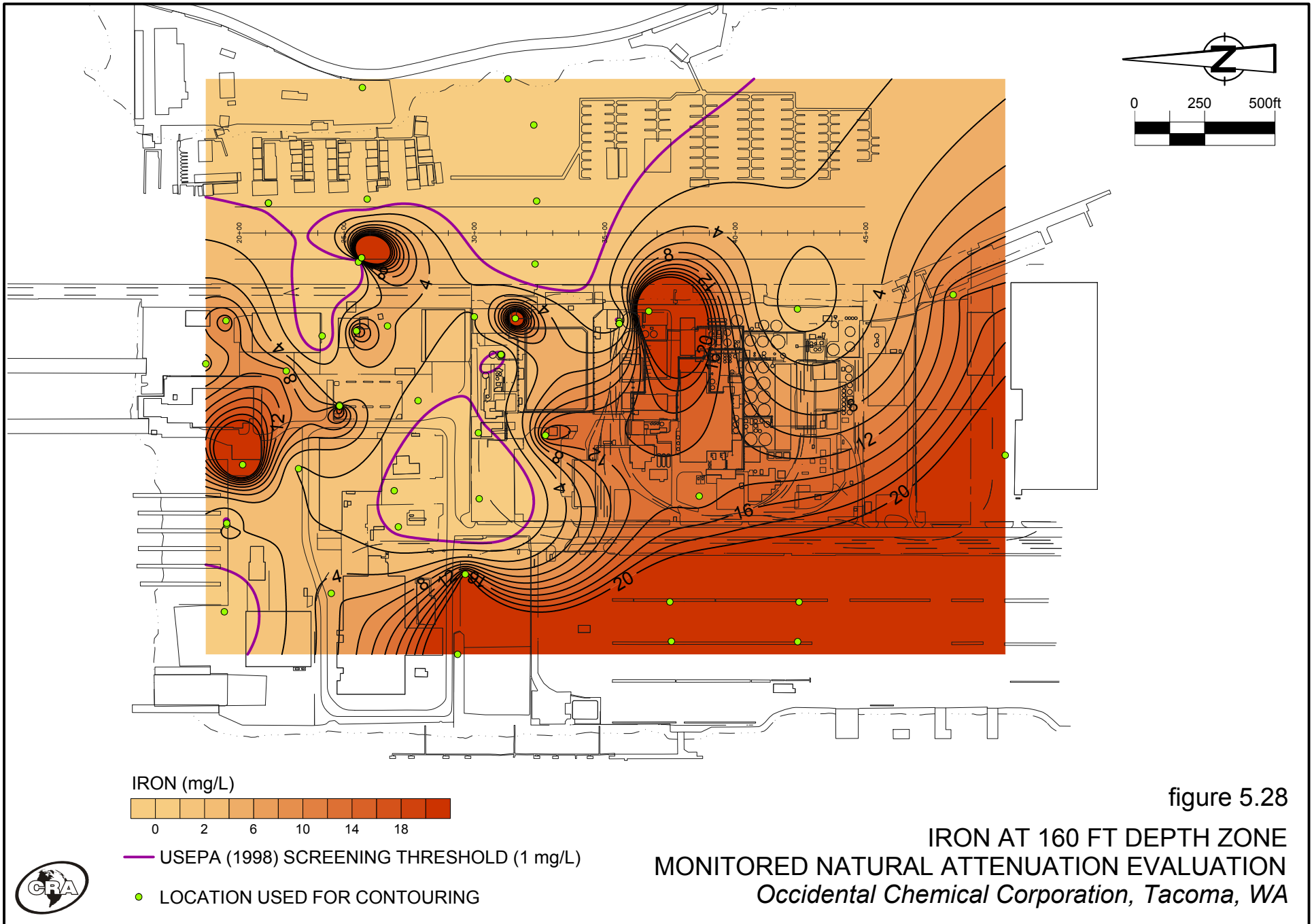
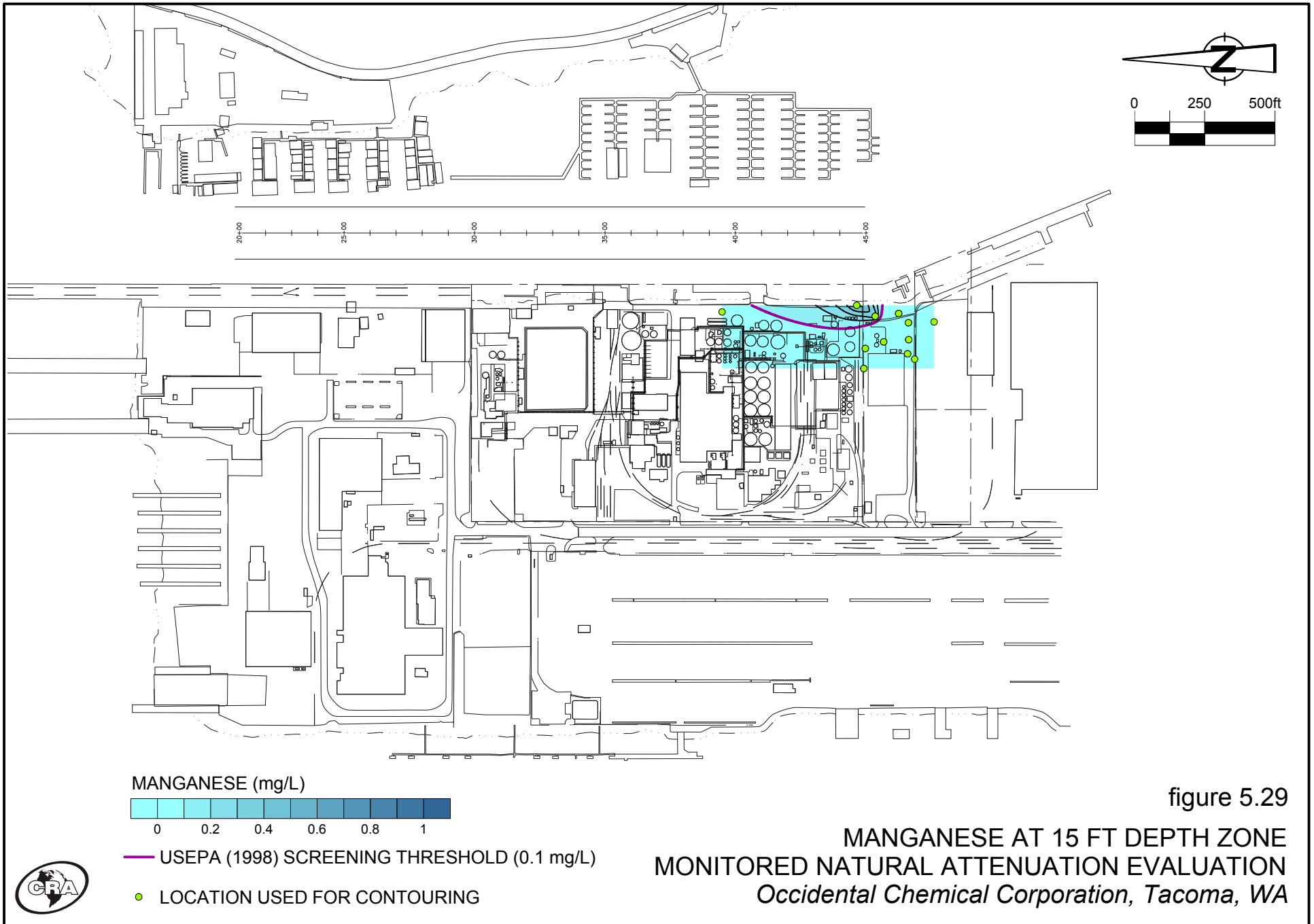


figure 5.27

**IRON AT 130 FT DEPTH ZONE**  
**MONITORED NATURAL ATTENUATION EVALUATION**  
*Occidental Chemical Corporation, Tacoma, WA*







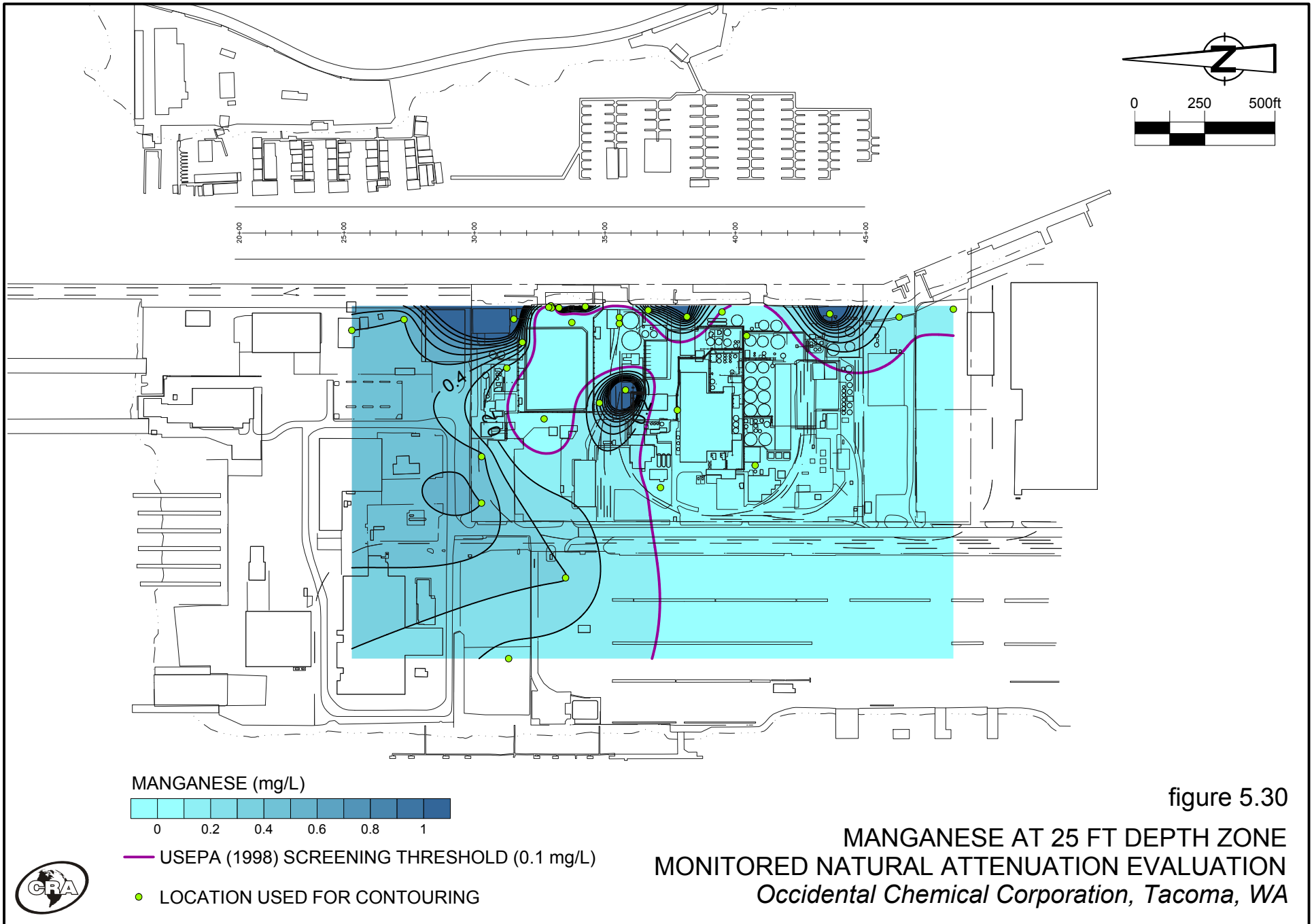


figure 5.30

**MANGANESE AT 25 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***

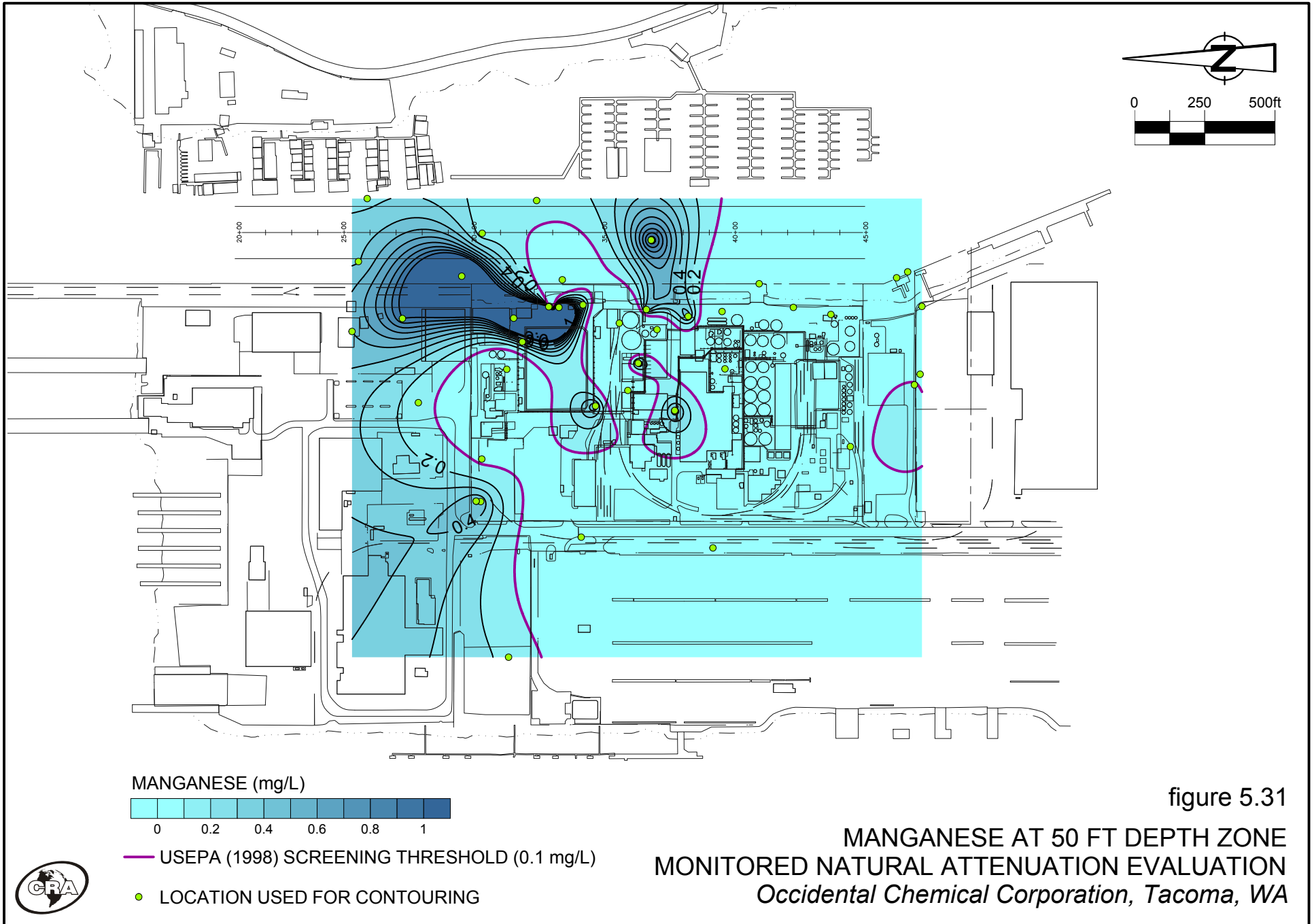


figure 5.31

**MANGANESE AT 50 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
Occidental Chemical Corporation, Tacoma, WA**

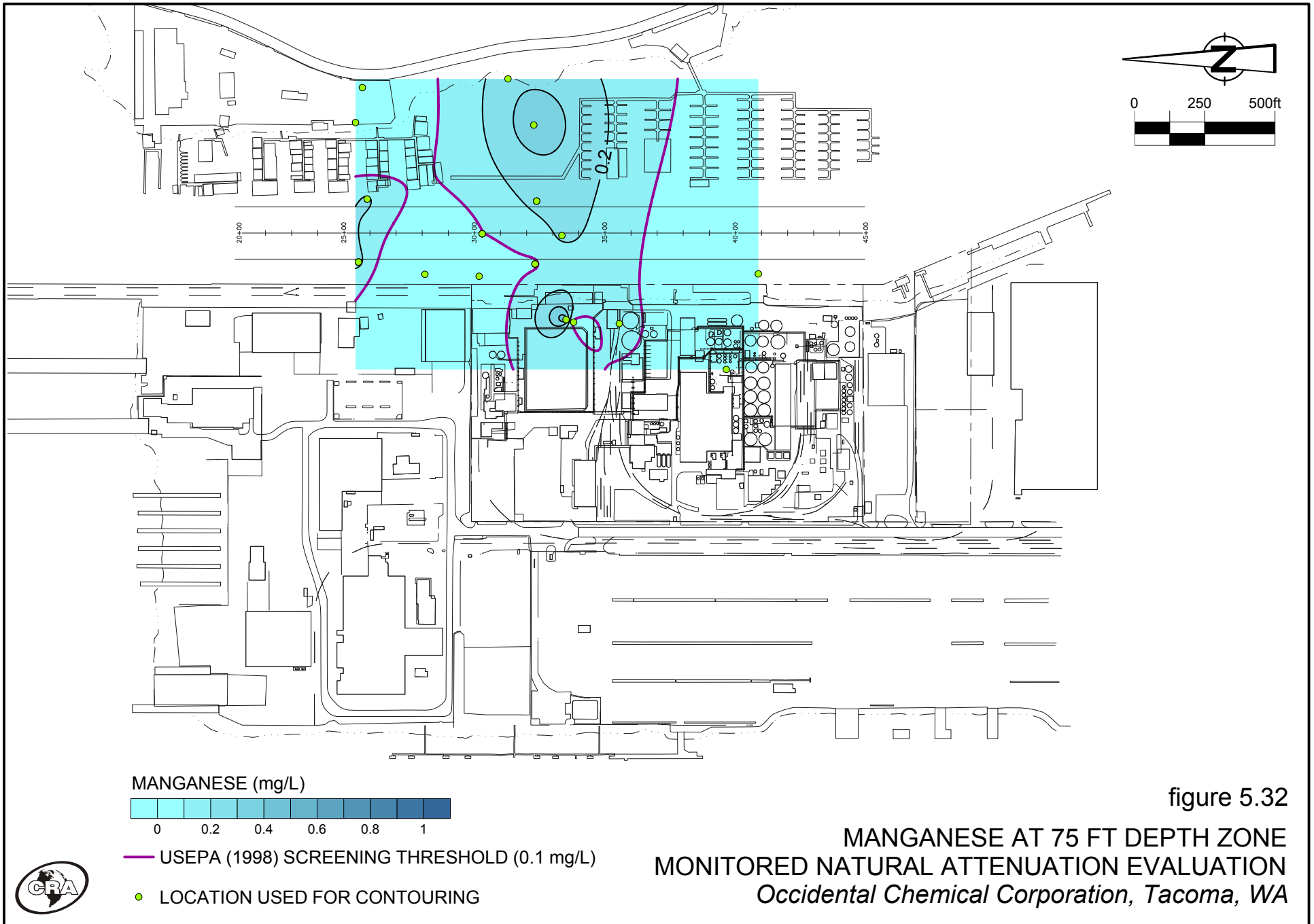


figure 5.32

**MANGANESE AT 75 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
Occidental Chemical Corporation, Tacoma, WA**



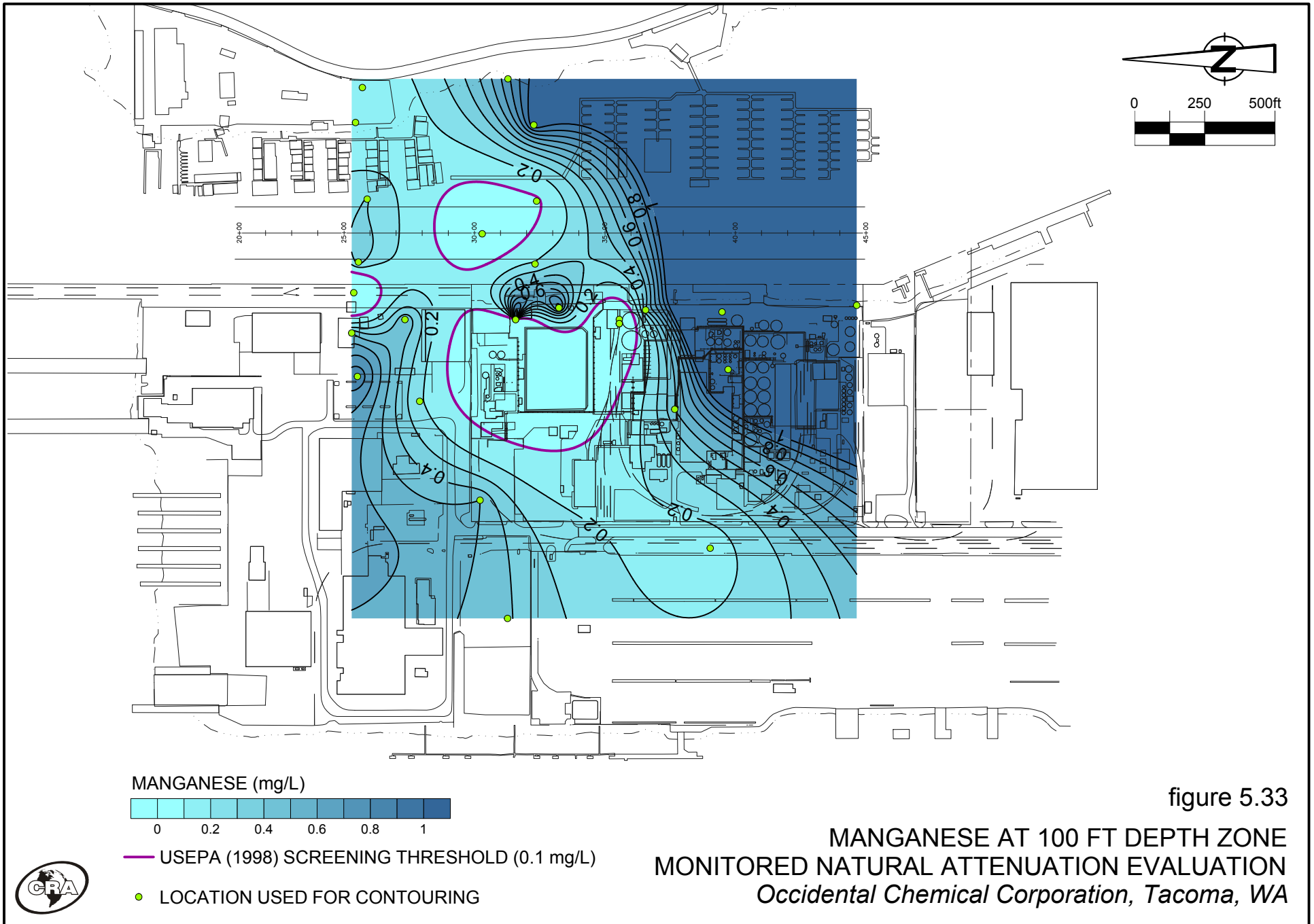


figure 5.33

**MANGANESE AT 100 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***

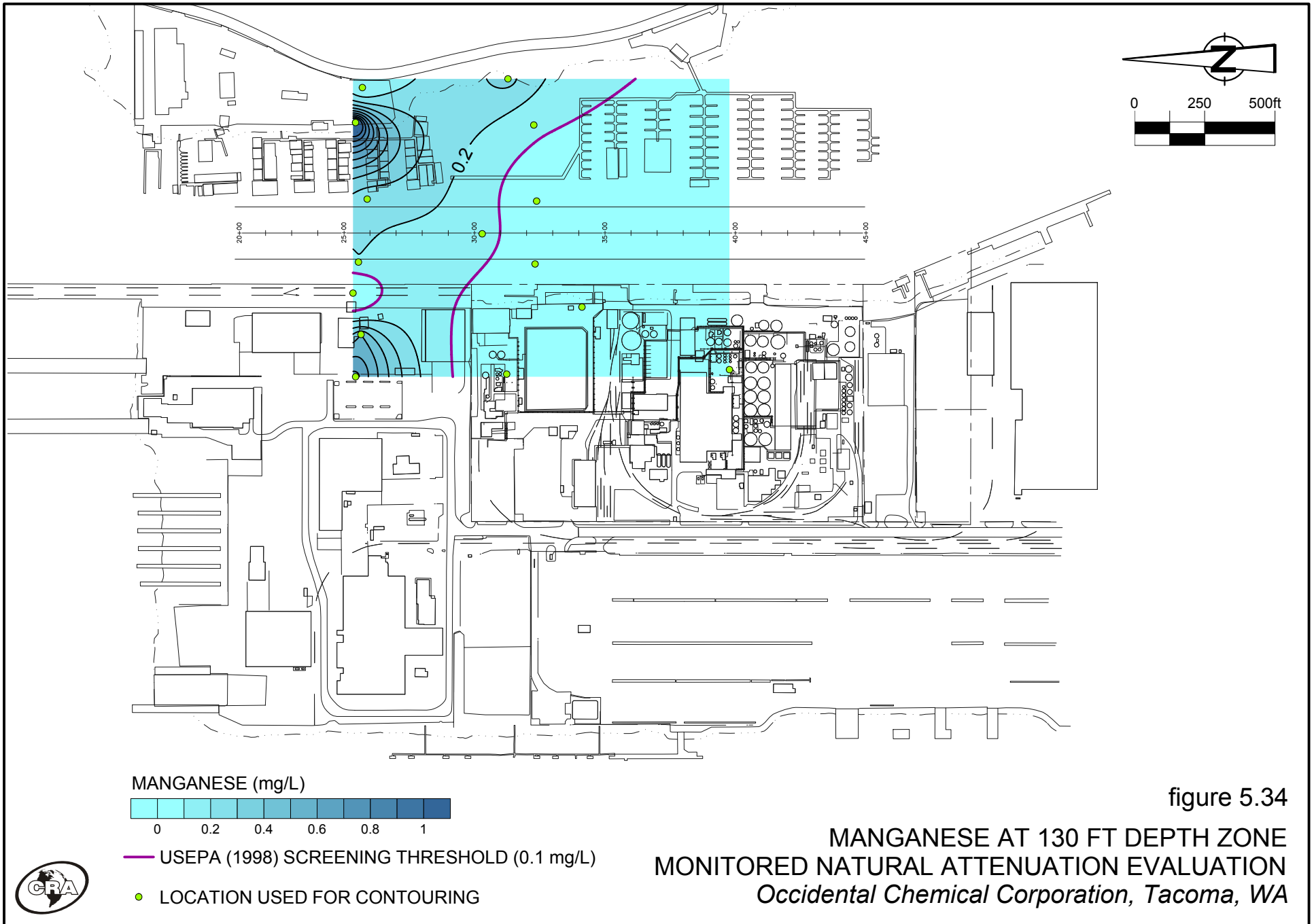
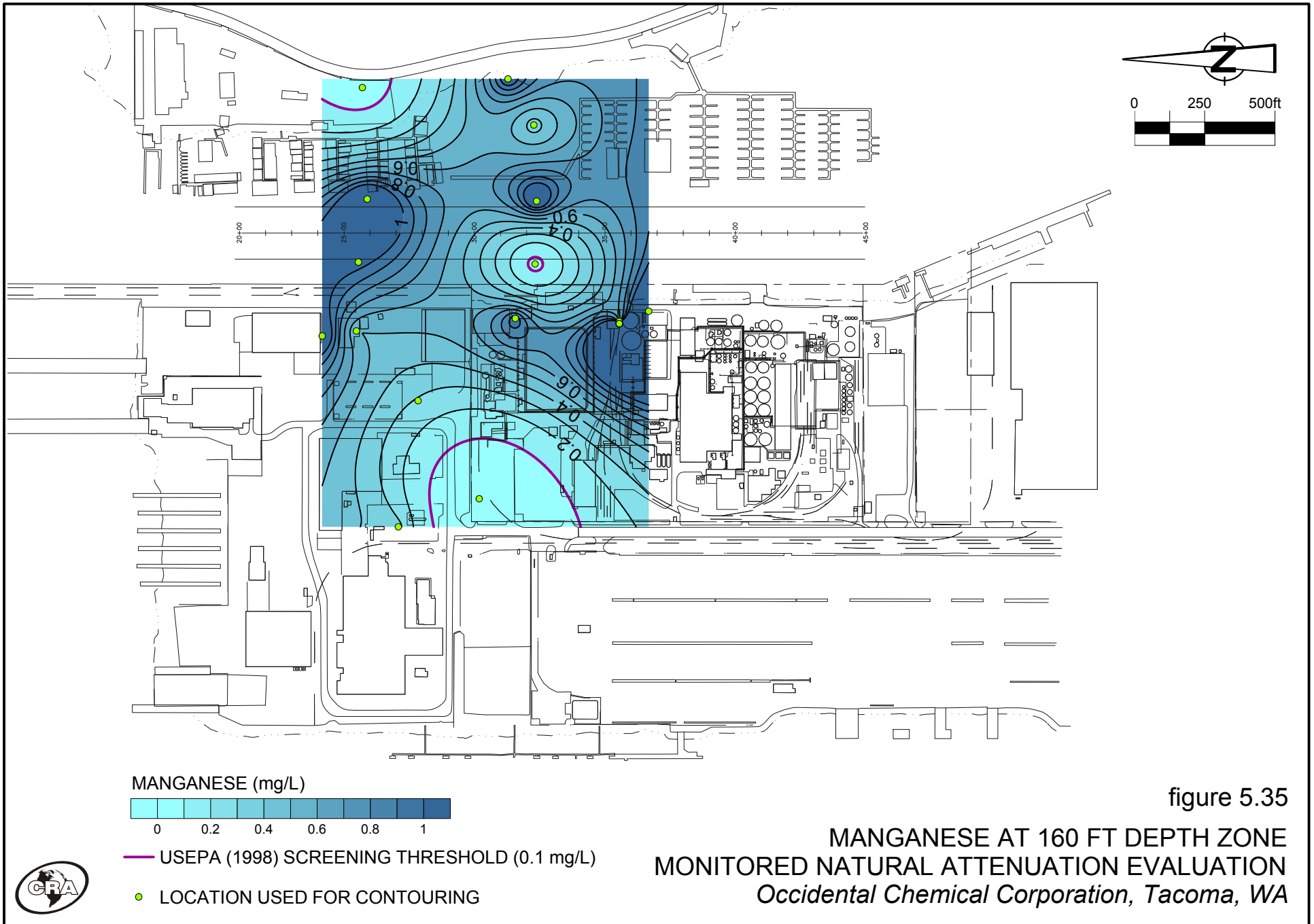


figure 5.34

**MANGANESE AT 130 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***







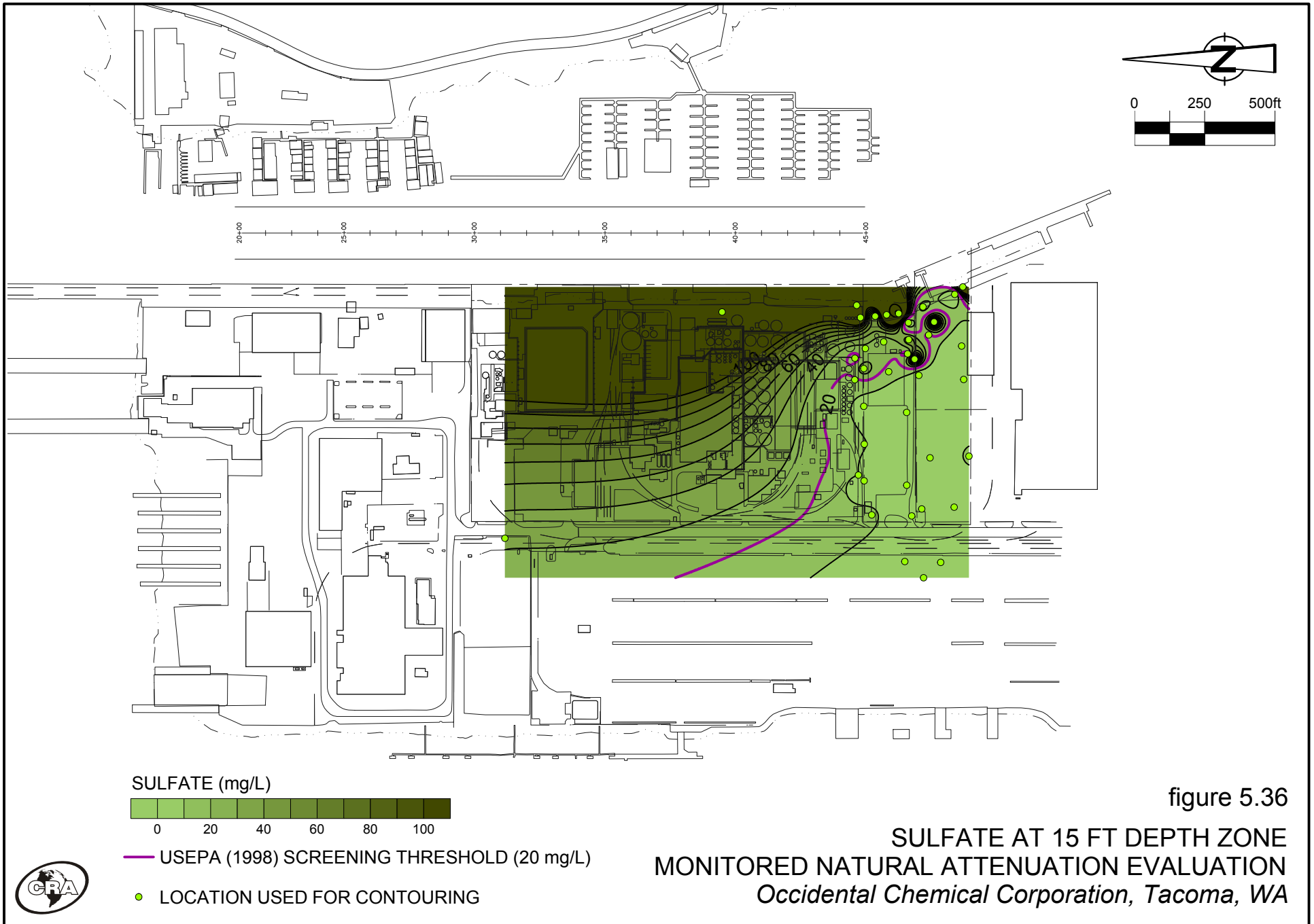


figure 5.36

**SULFATE AT 15 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
Occidental Chemical Corporation, Tacoma, WA**



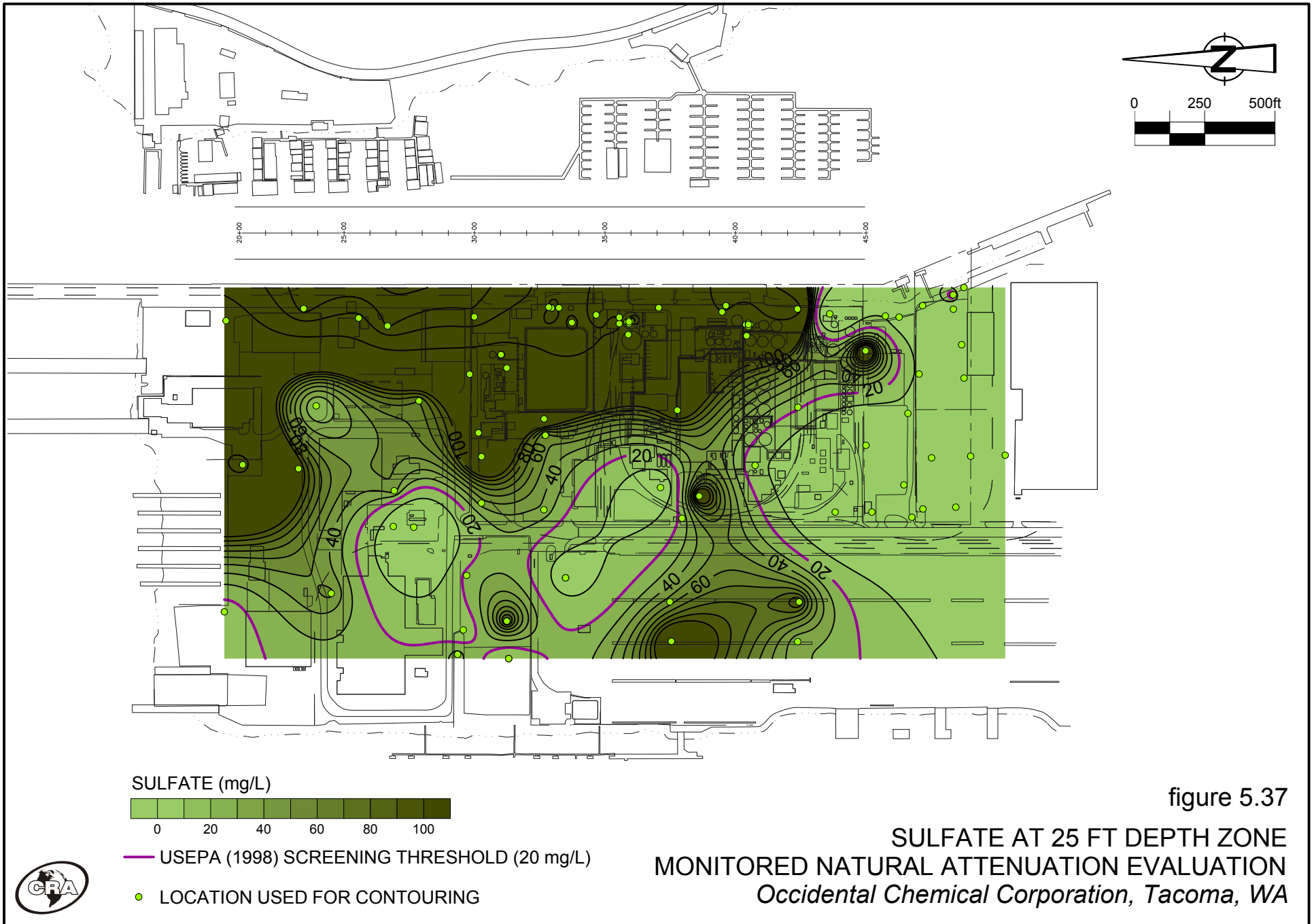
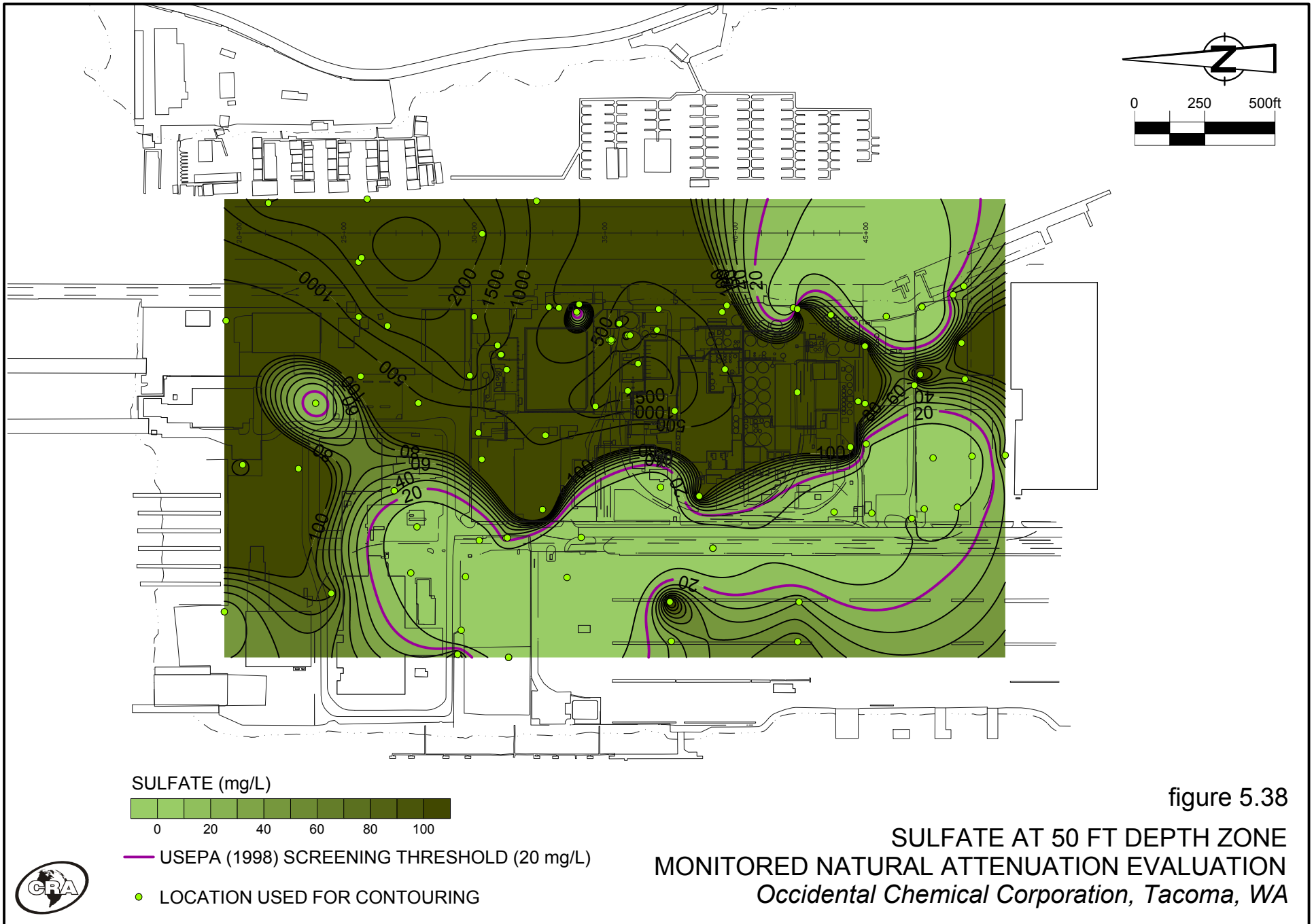
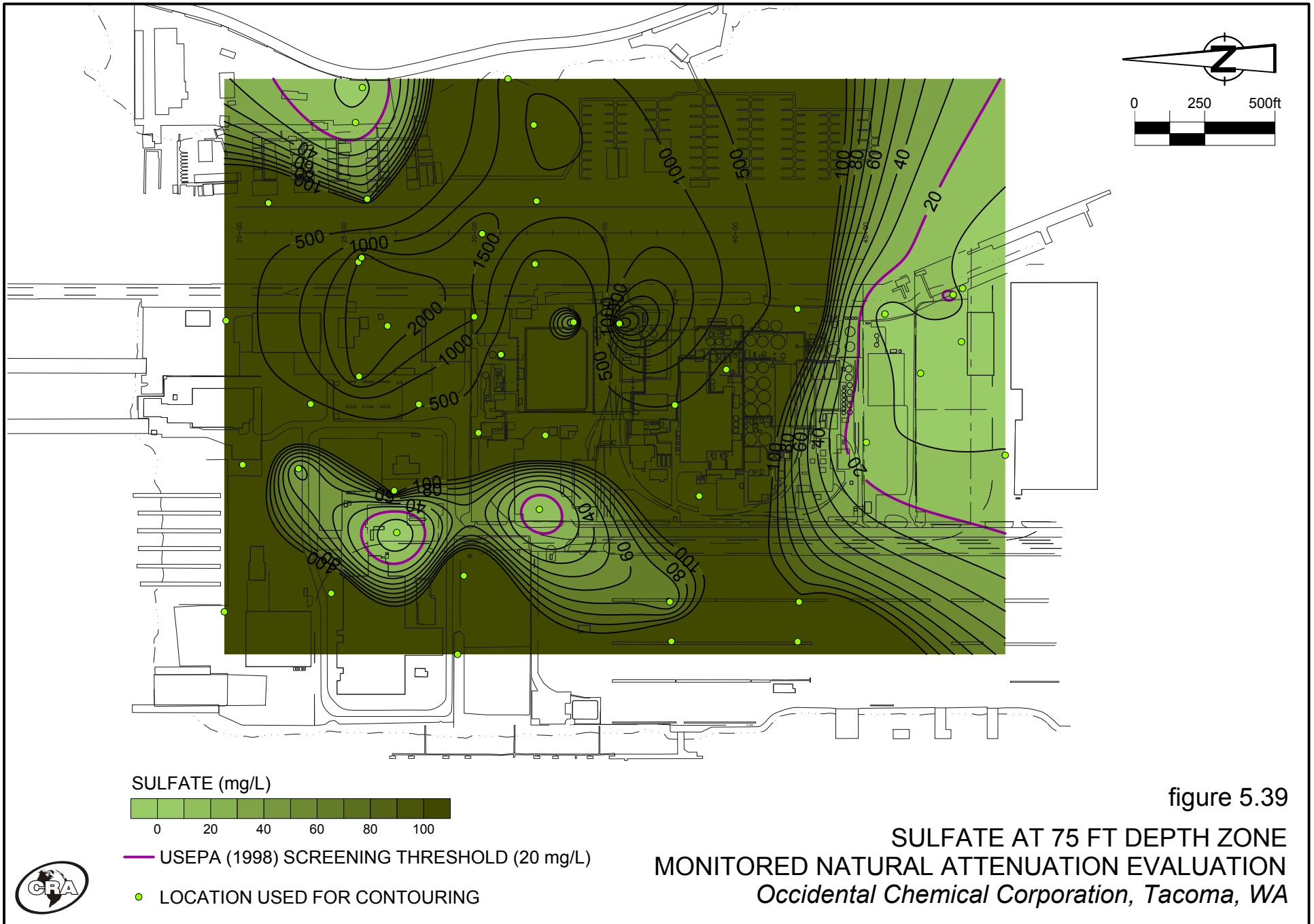


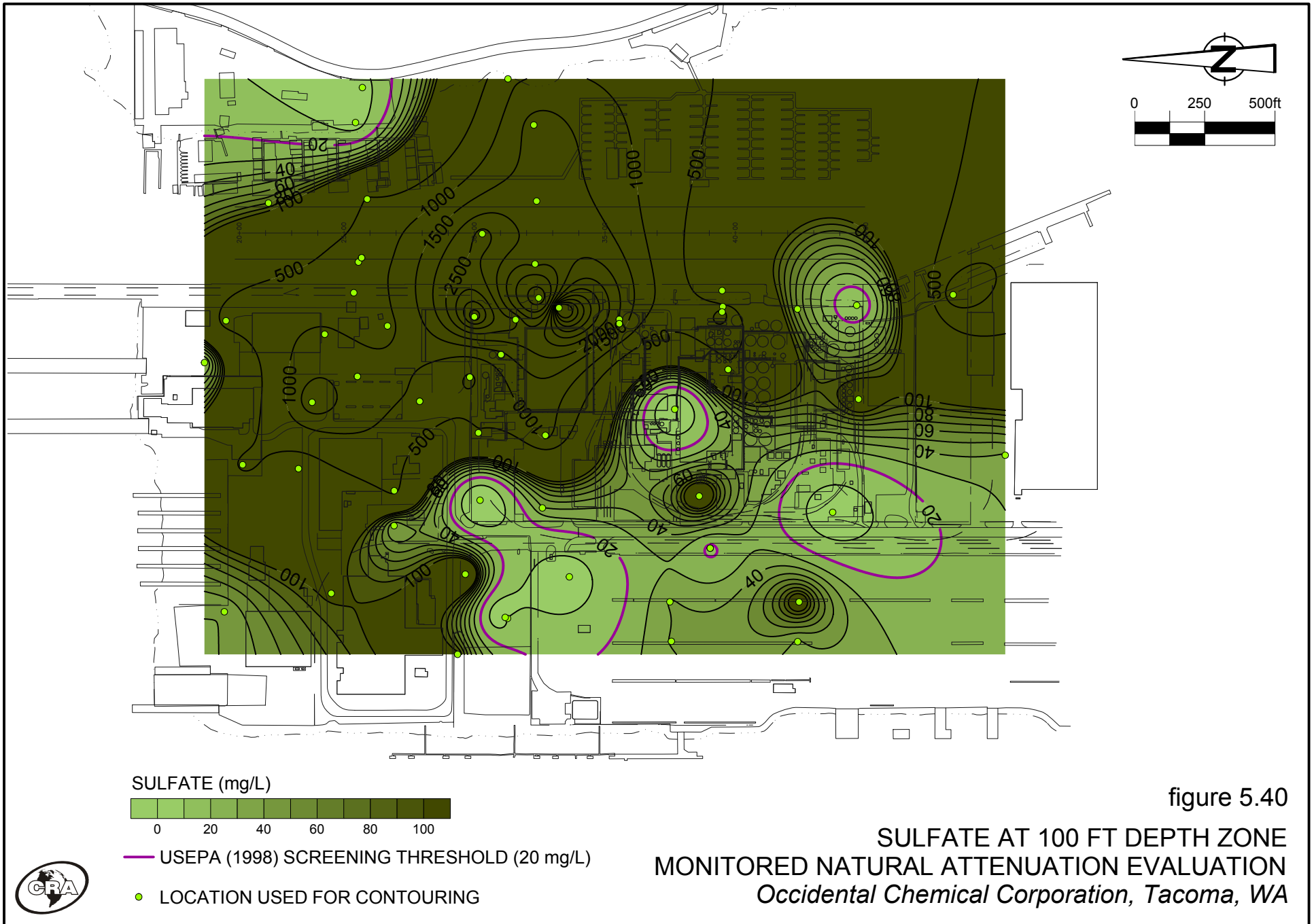
figure 5.37

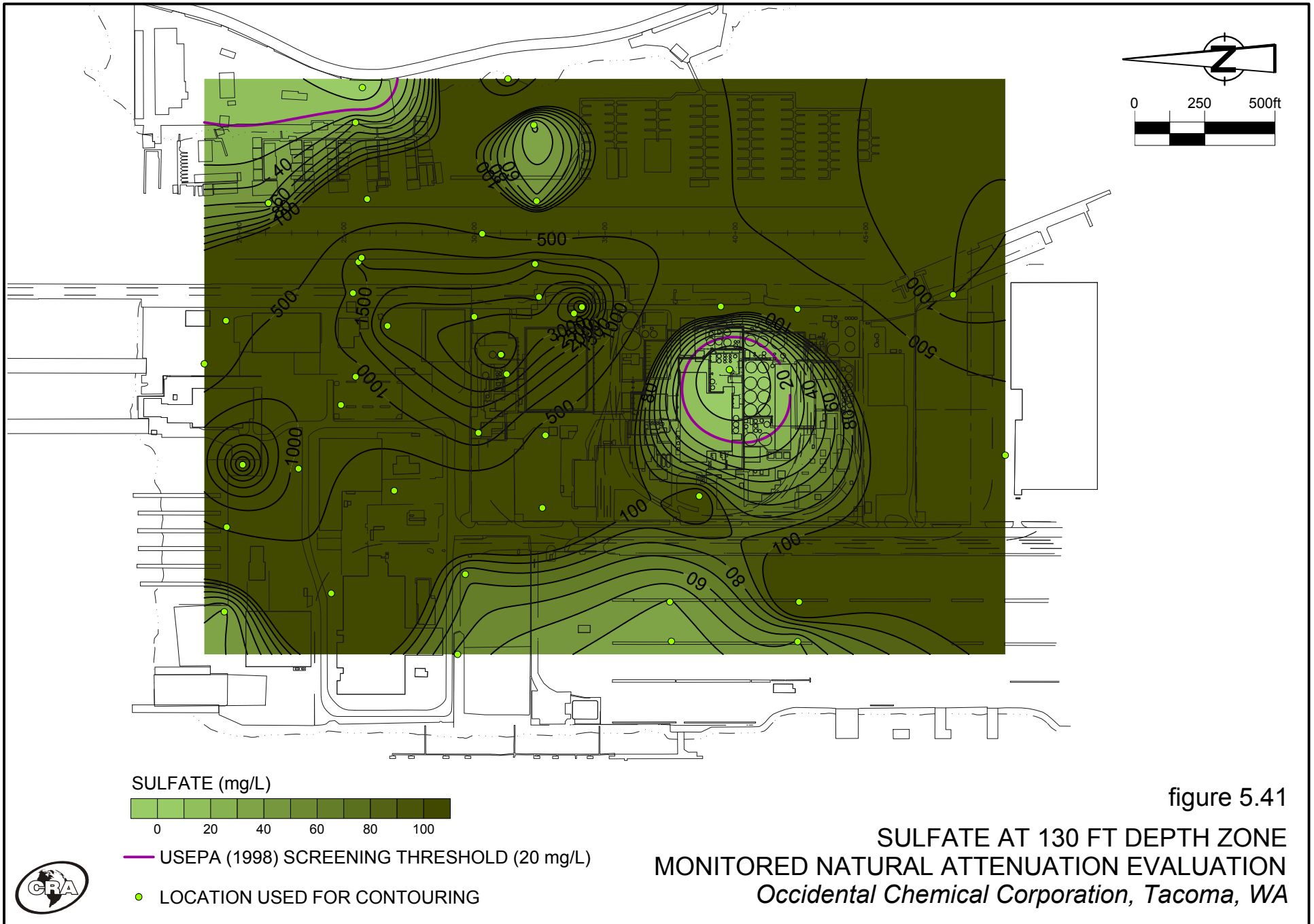
**SULFATE AT 25 FT DEPTH ZONE  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA***

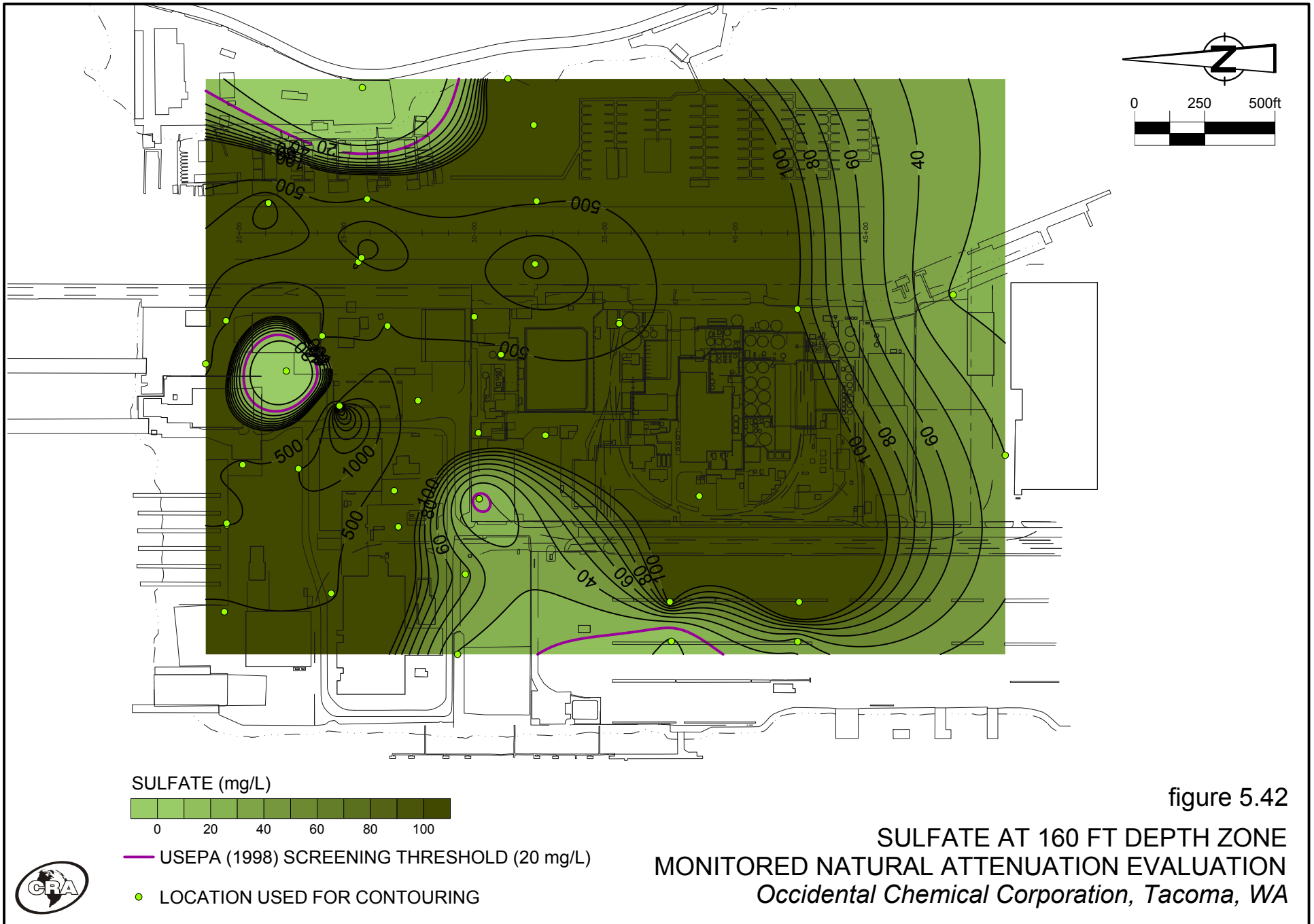












SULFATE (mg/L)

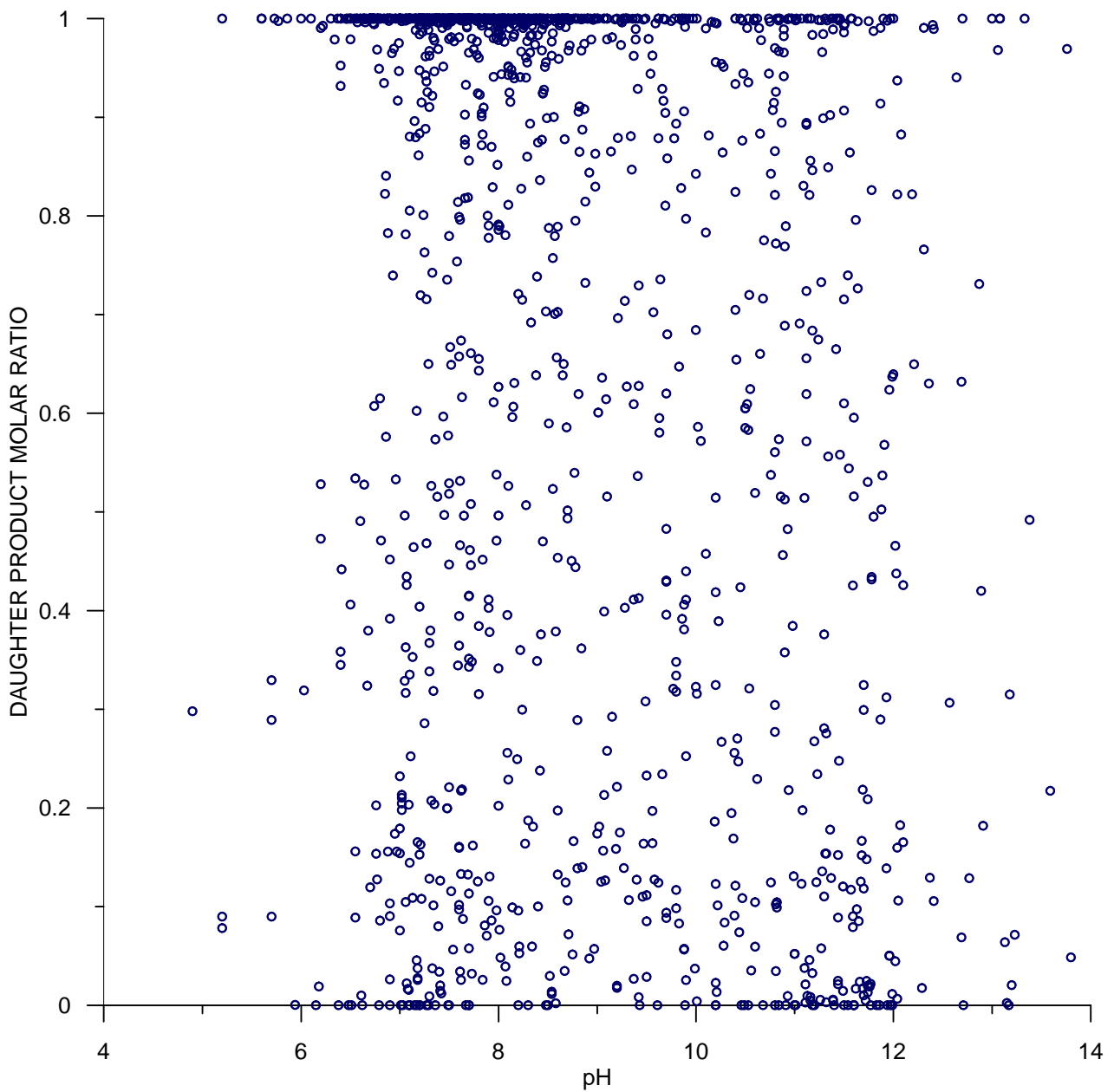


— USEPA (1998) SCREENING THRESHOLD (20 mg/L)

● LOCATION USED FOR CONTOURING

figure 5.42  
 SULFATE AT 160 FT DEPTH ZONE  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*





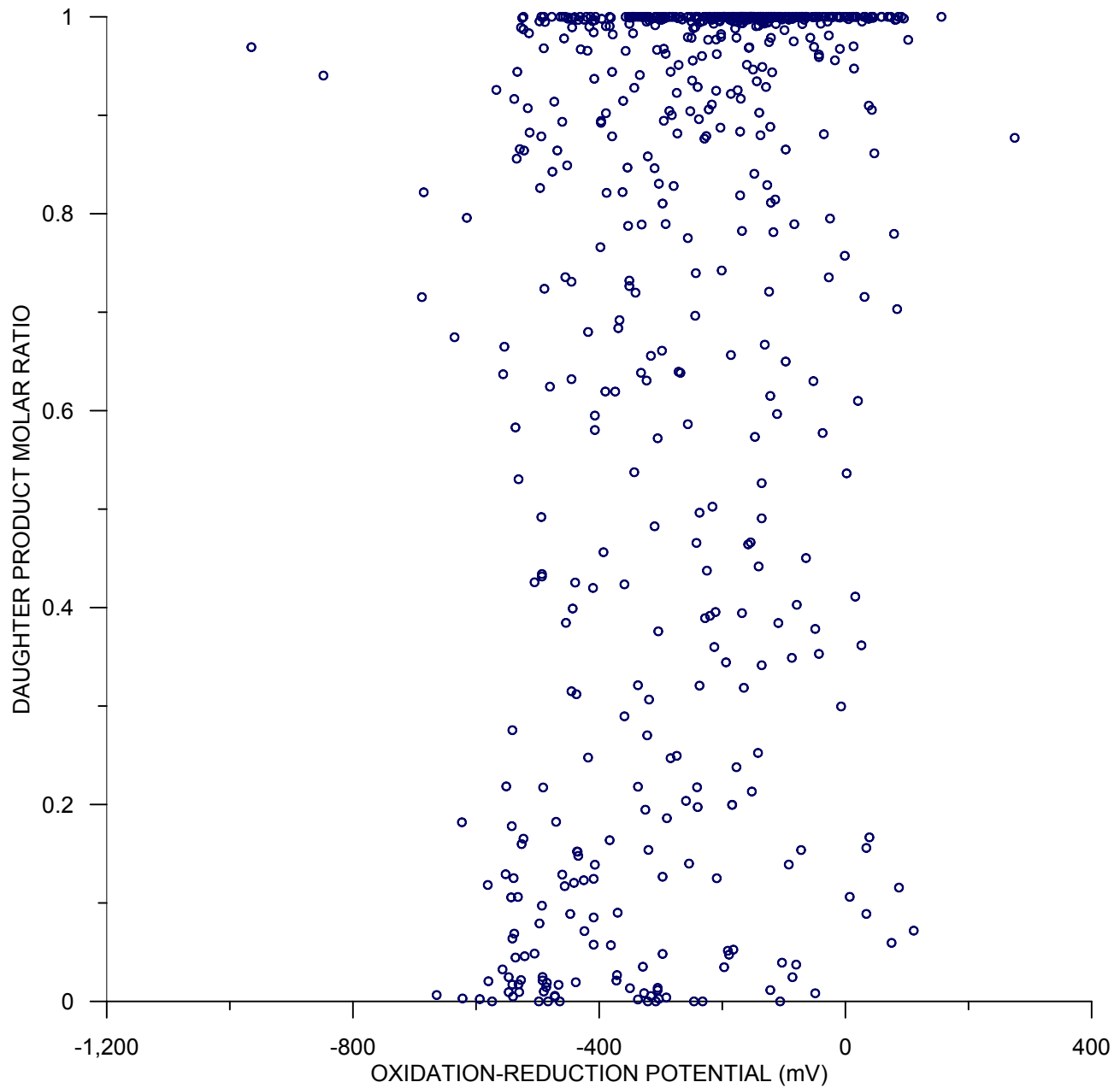
NOTE: DAUGHTER PRODUCT MOLAR RATIO IS CALCULATED ONLY FOR SAMPLES WHERE TC VOC IS GREATER THAN 100 µg/L

figure 5.43

pH VERSUS DAUGHTER PRODUCT MOLAR RATIO  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*





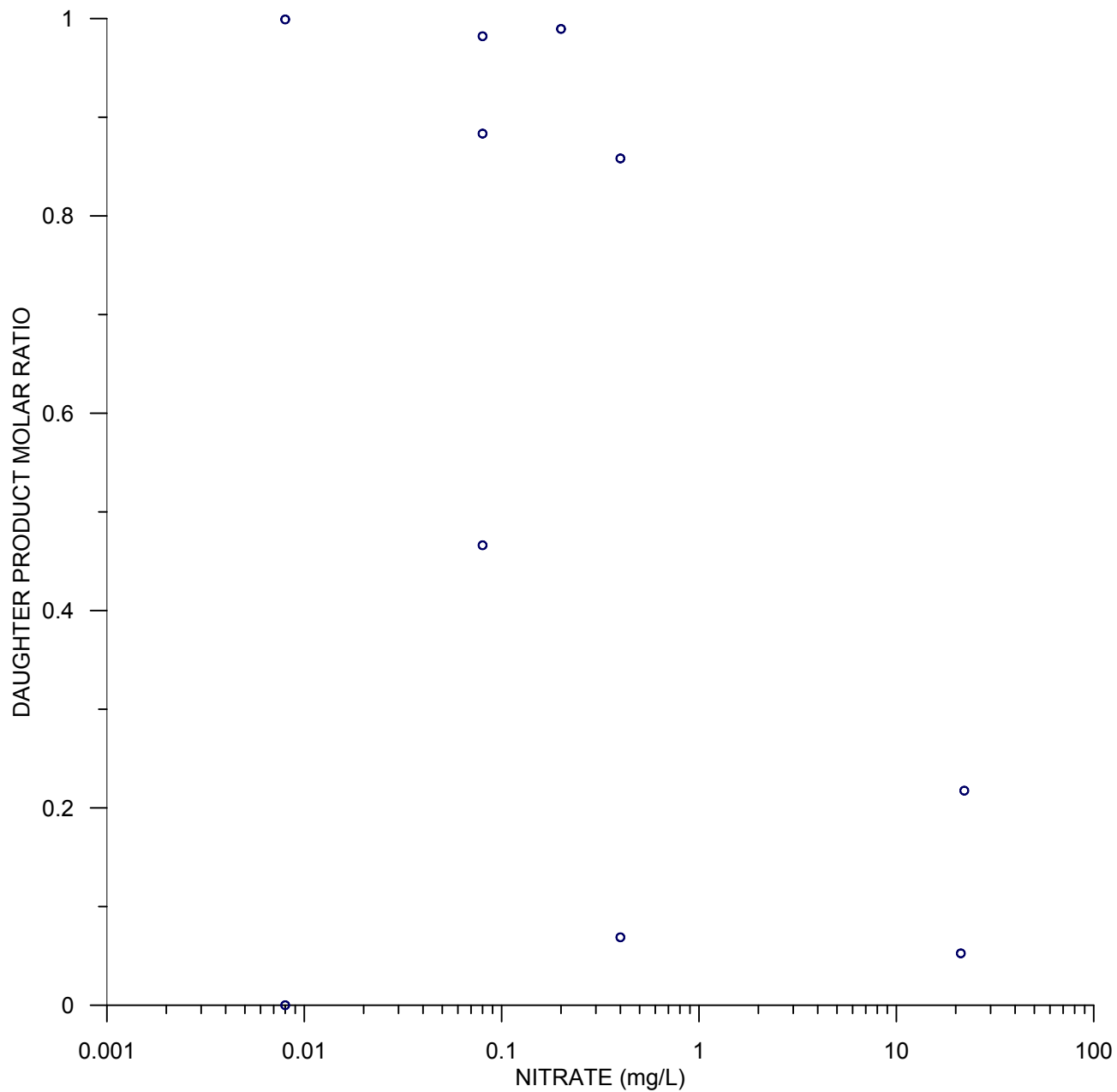


NOTE: DAUGHTER PRODUCT MOLAR RATIO IS CALCULATED ONLY FOR SAMPLES WHERE TCVOC IS GREATER THAN 100 µg/L

figure 5.44

OXIDATION-REDUCTION POTENTIAL VERSUS  
 DAUGHTER PRODUCT MOLAR RATIO  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*



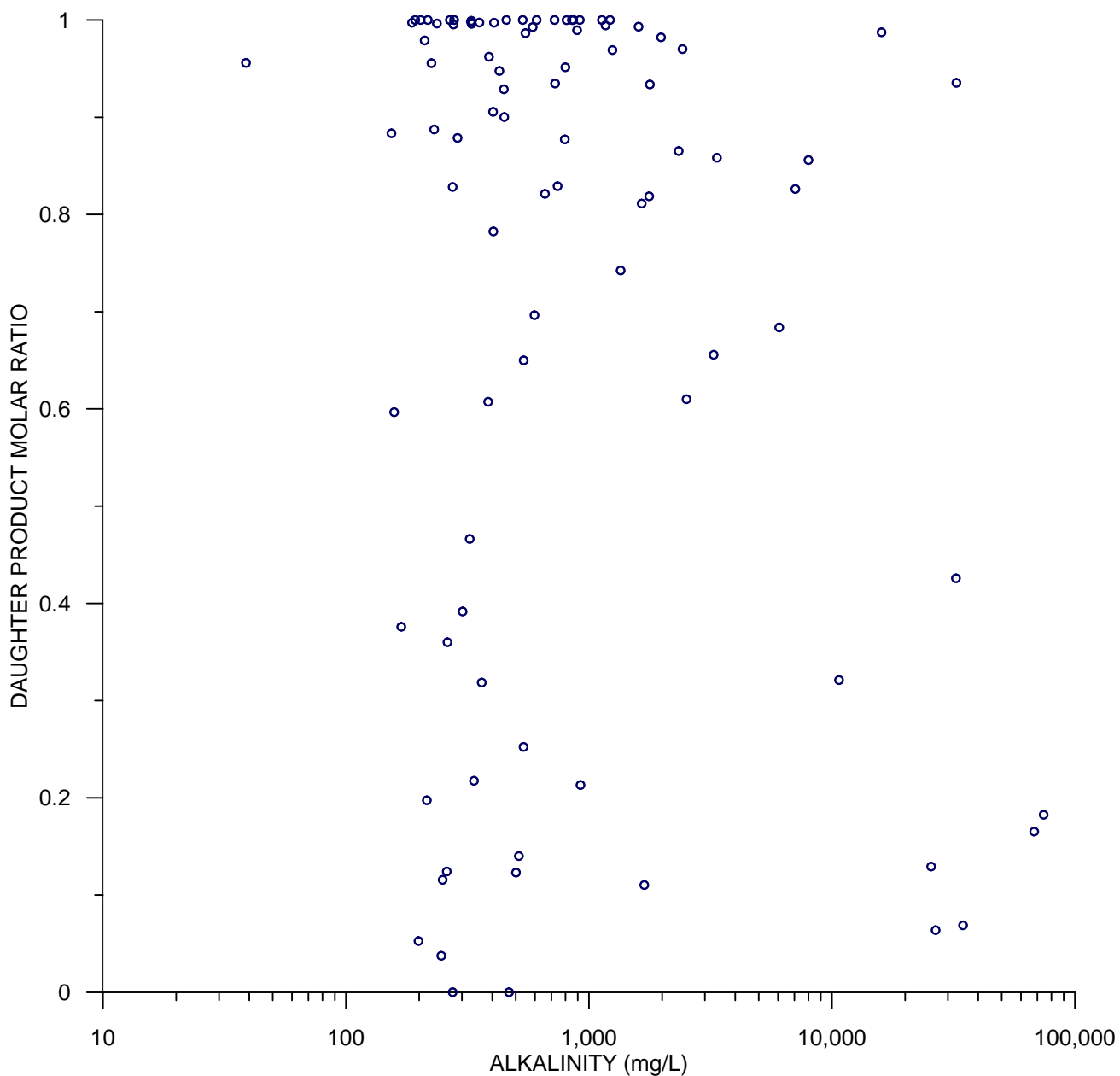


NOTE: DAUGHTER PRODUCT MOLAR RATIO IS CALCULATED ONLY FOR SAMPLES WHERE TCVOC IS GREATER THAN 100 µg/L

figure 5.45

NITRATE VERSUS DAUGHTER PRODUCT MOLAR RATIO  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*



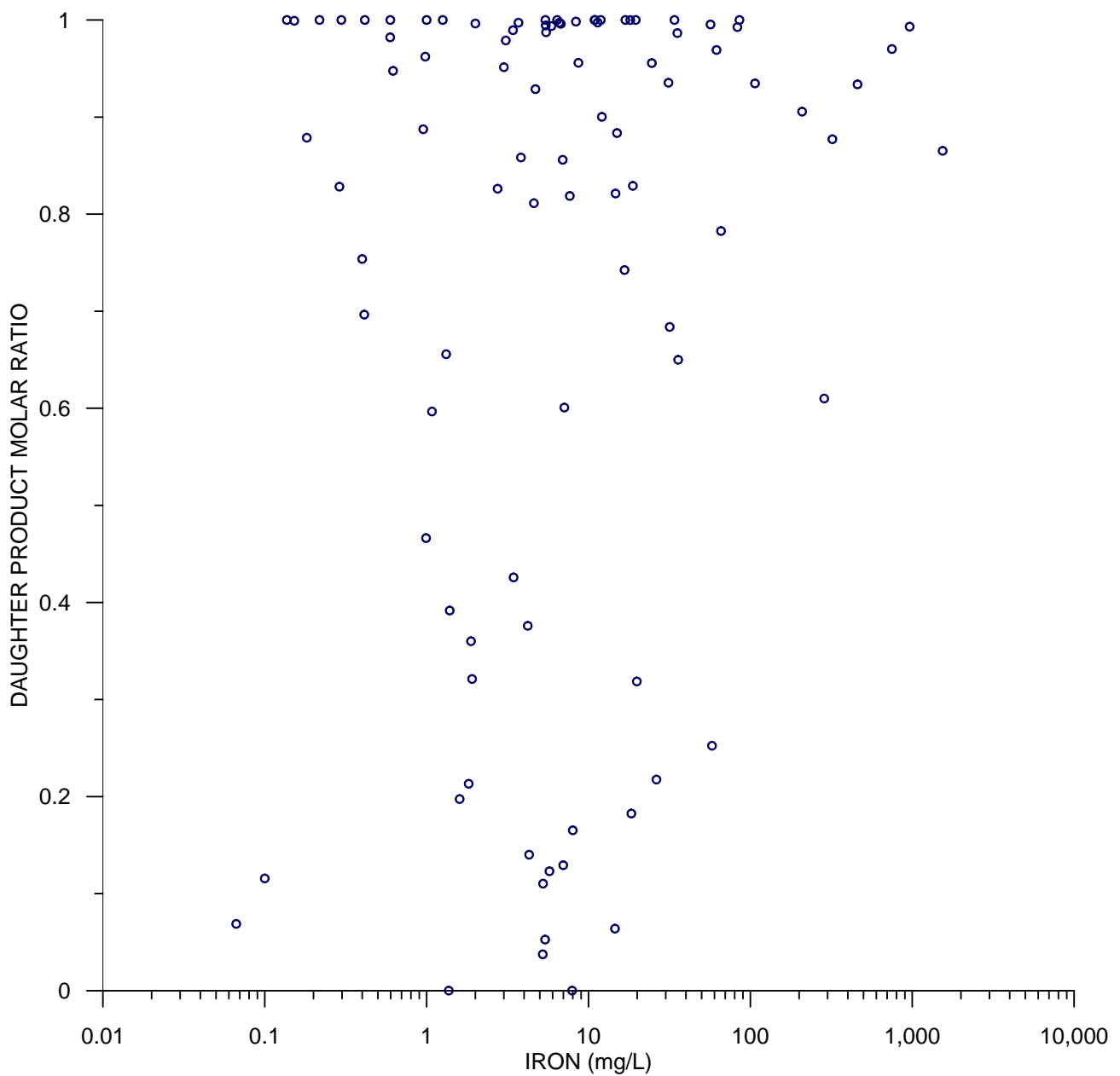


NOTE: DAUGHTER PRODUCT MOLAR RATIO IS CALCULATED ONLY FOR SAMPLES WHERE TCVOC IS GREATER THAN 100 µg/L

figure 5.46

ALKALINITY VERSUS DAUGHTER PRODUCT MOLAR RATIO  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*



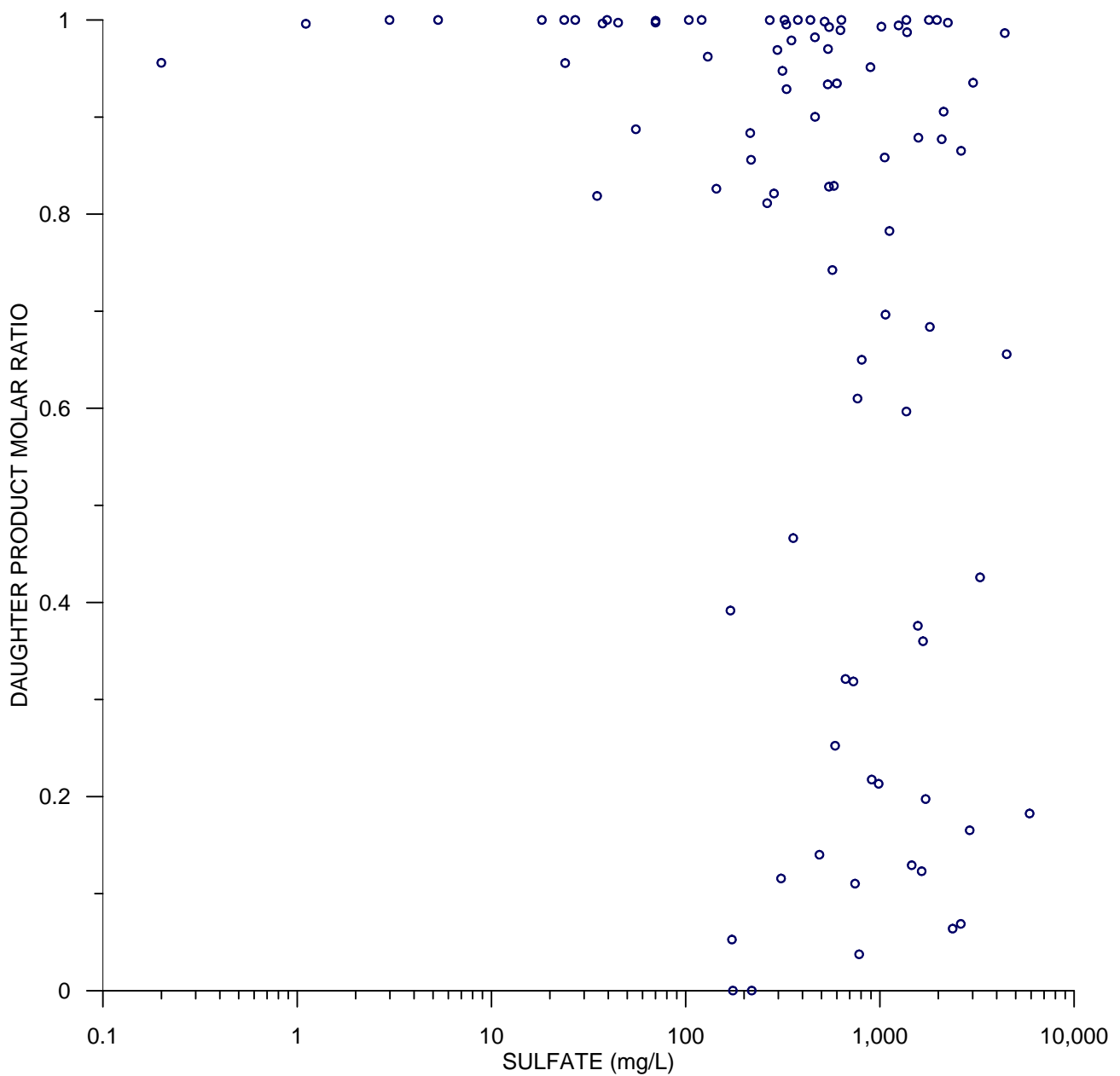


NOTE: DAUGHTER PRODUCT MOLAR RATIO IS CALCULATED ONLY FOR SAMPLES WHERE TCVOC IS GREATER THAN 100 µg/L

figure 5.47

IRON VERSUS DAUGHTER PRODUCT MOLAR RATIO  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*



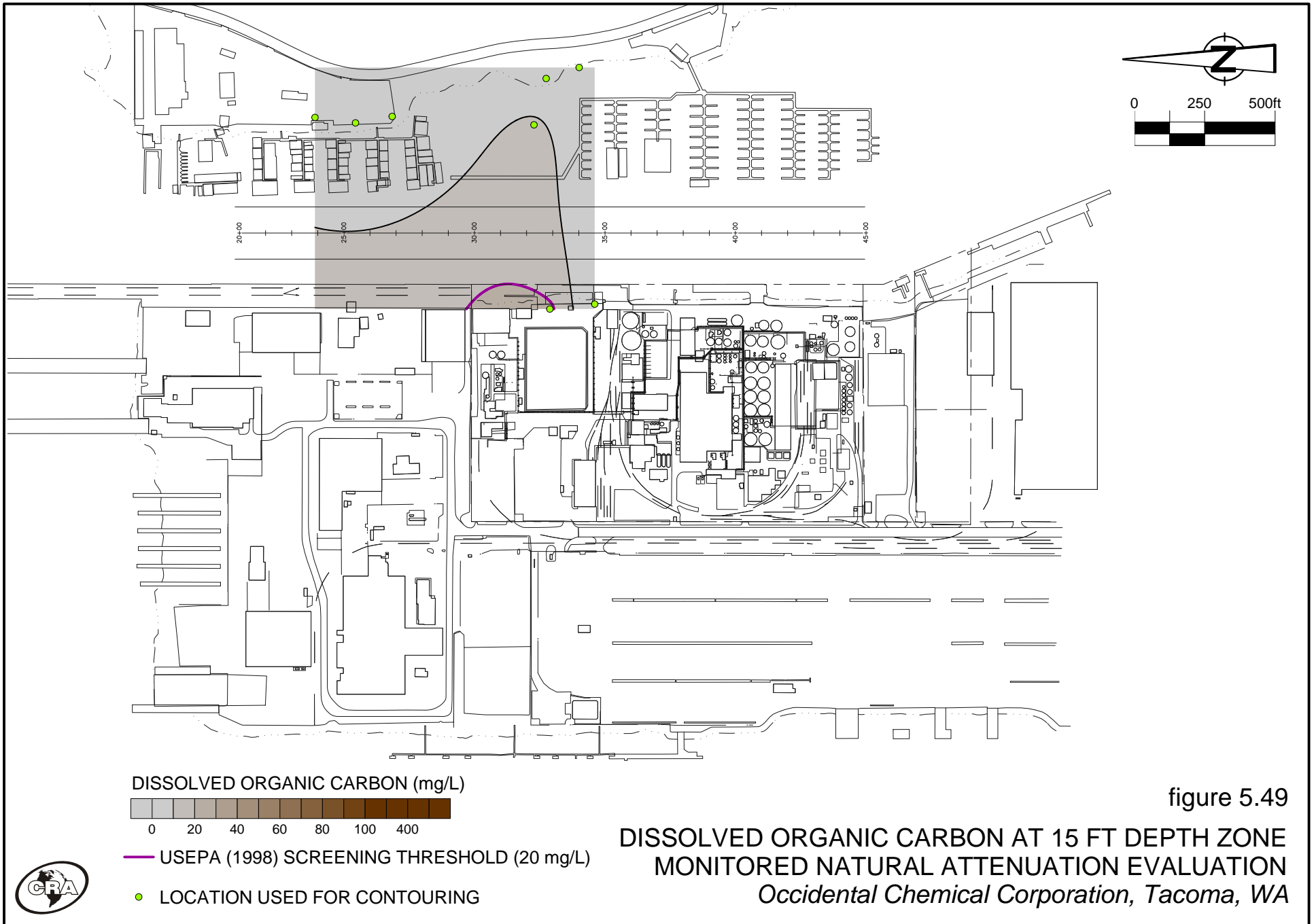


NOTE: DAUGHTER PRODUCT MOLAR RATIO IS CALCULATED ONLY FOR SAMPLES WHERE TCVOC IS GREATER THAN 100 µg/L

figure 5.48

SULFATE VERSUS DAUGHTER PRODUCT MOLAR RATIO  
 MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*





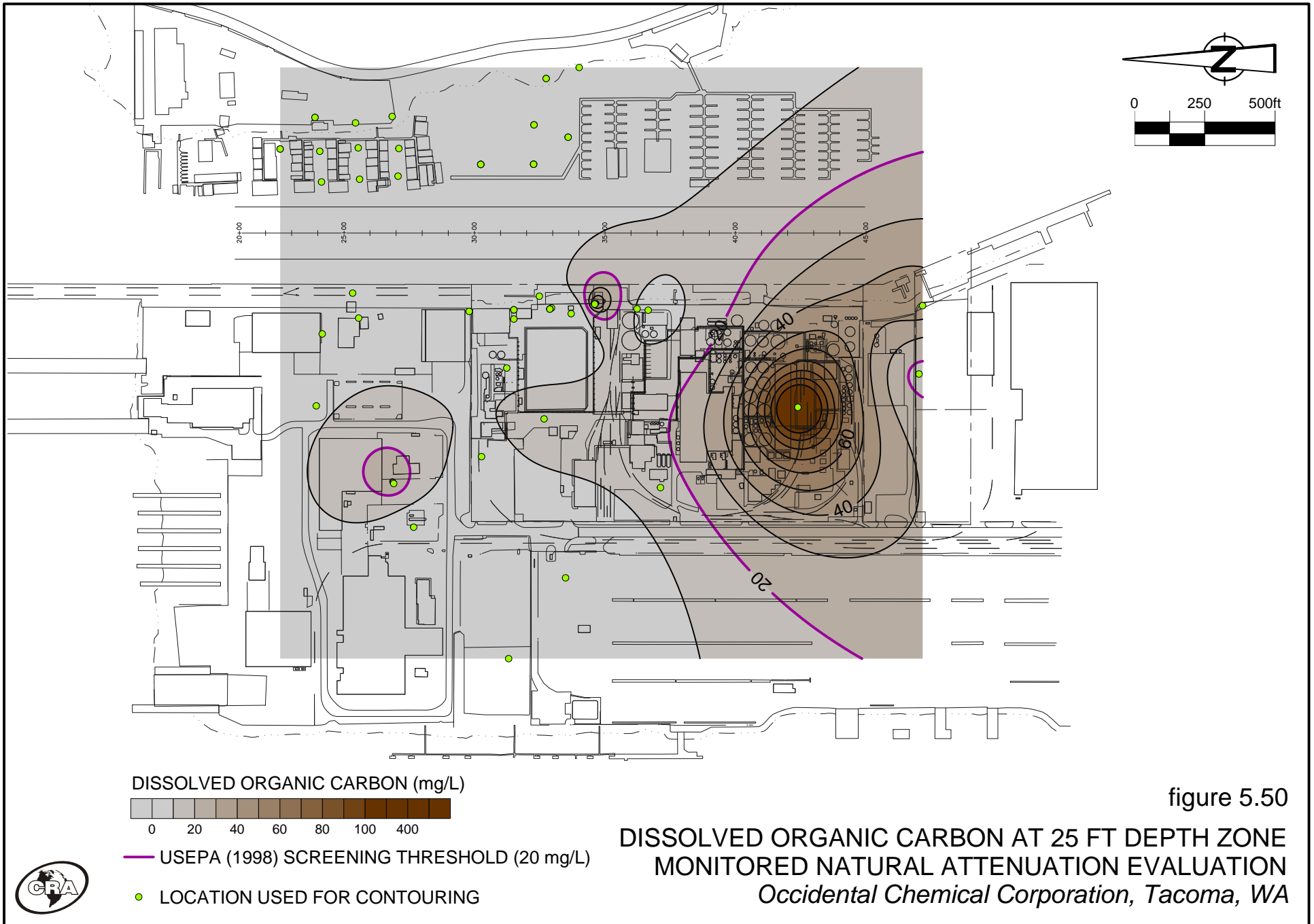
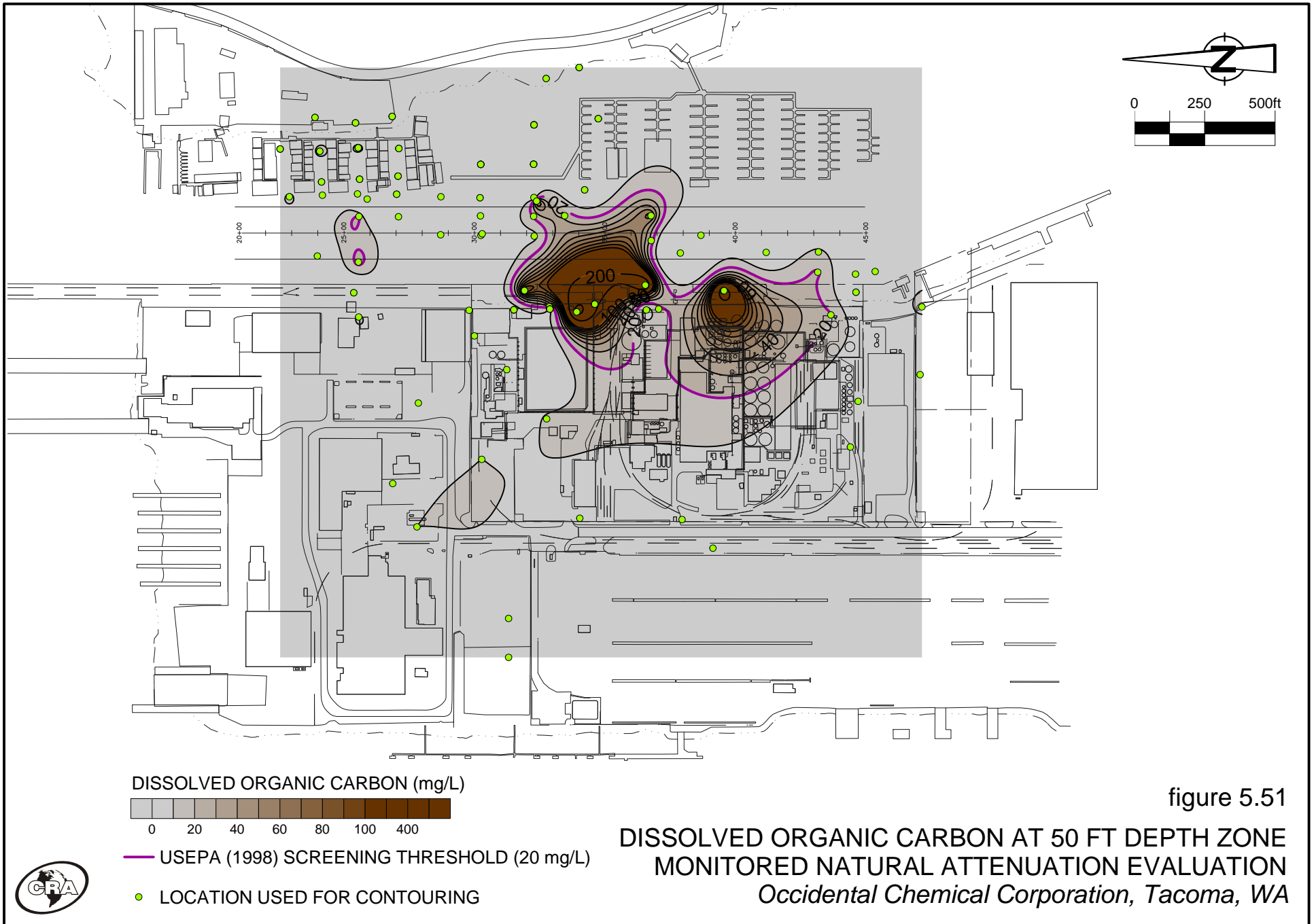


figure 5.50





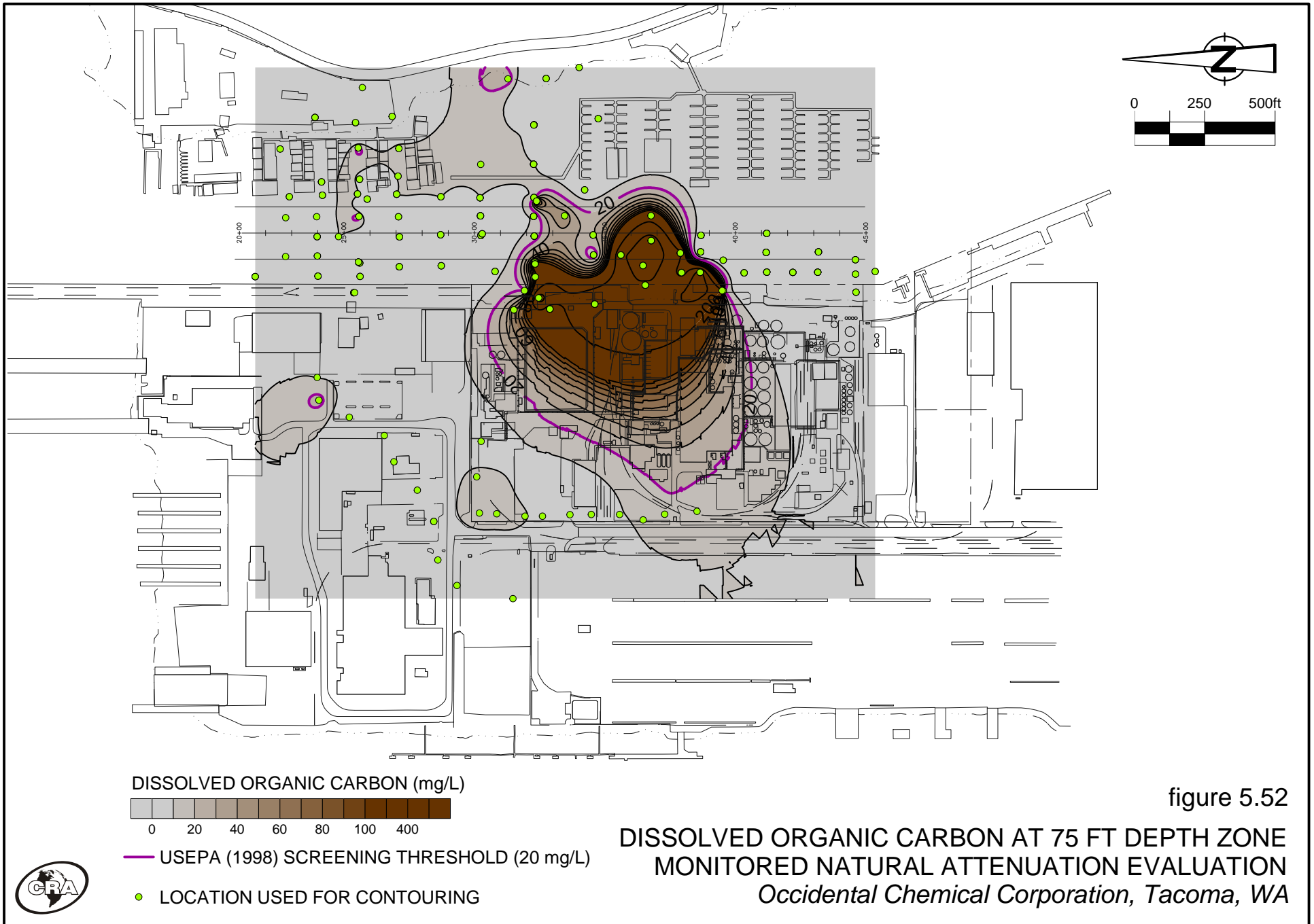
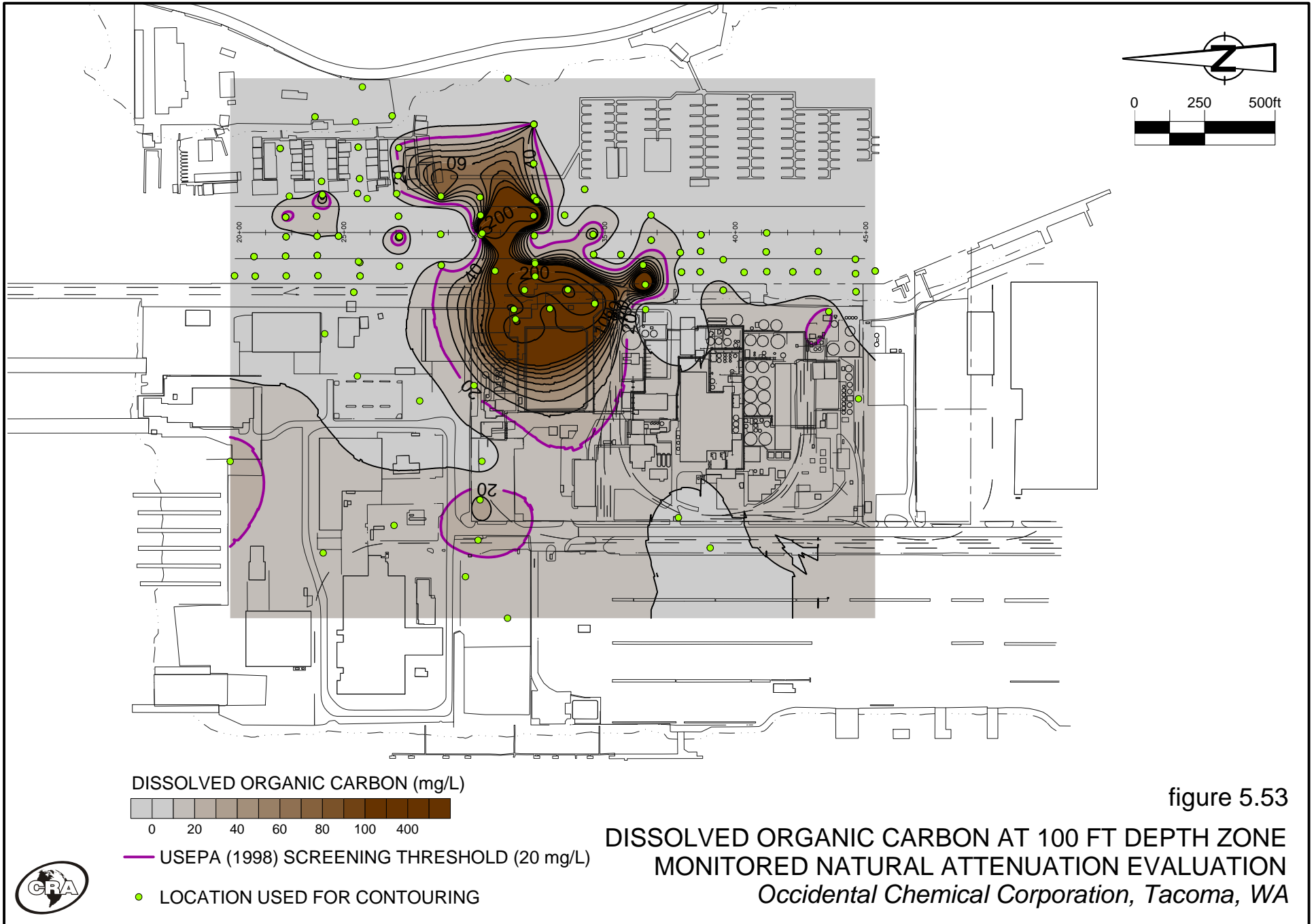


figure 5.52



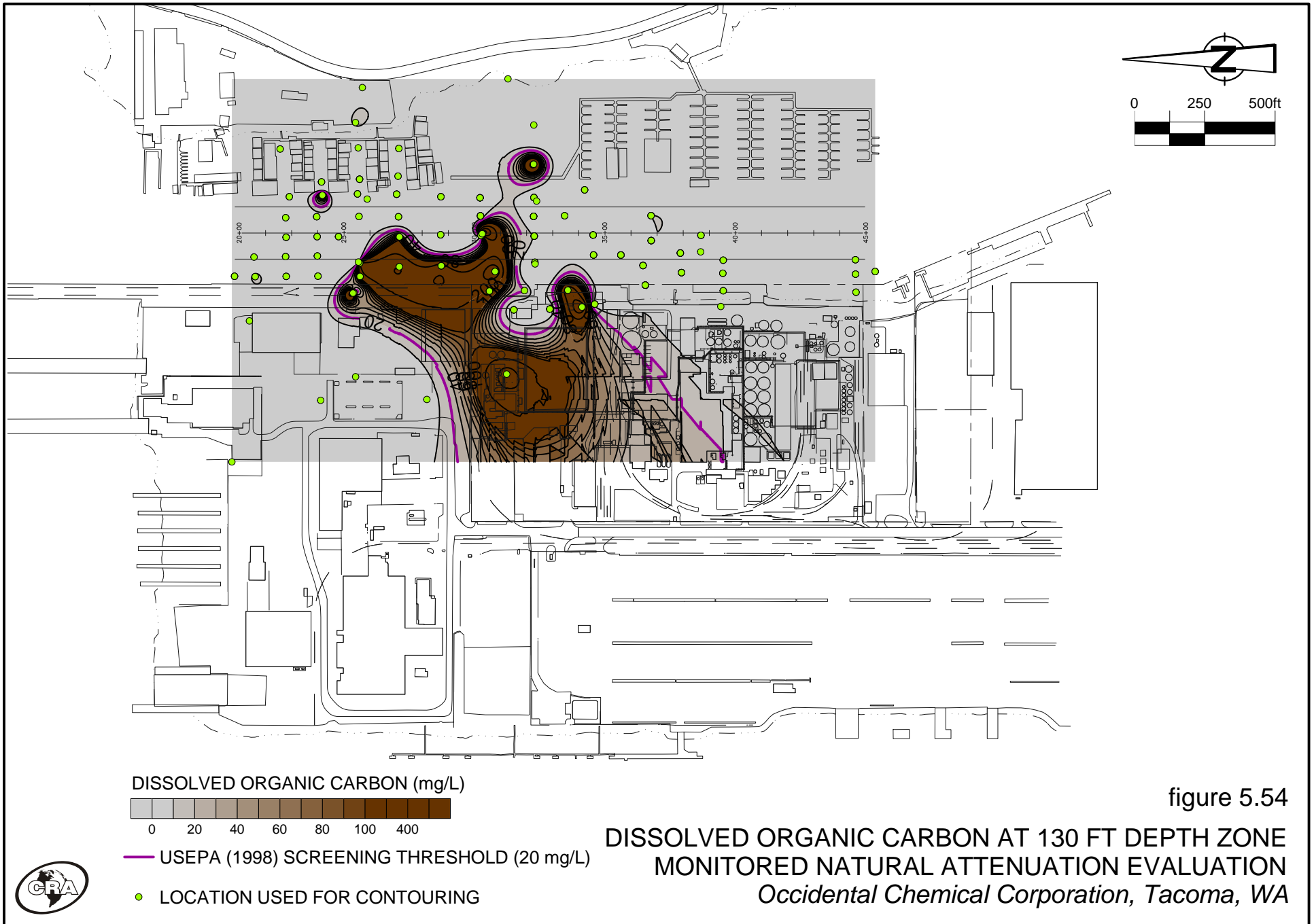
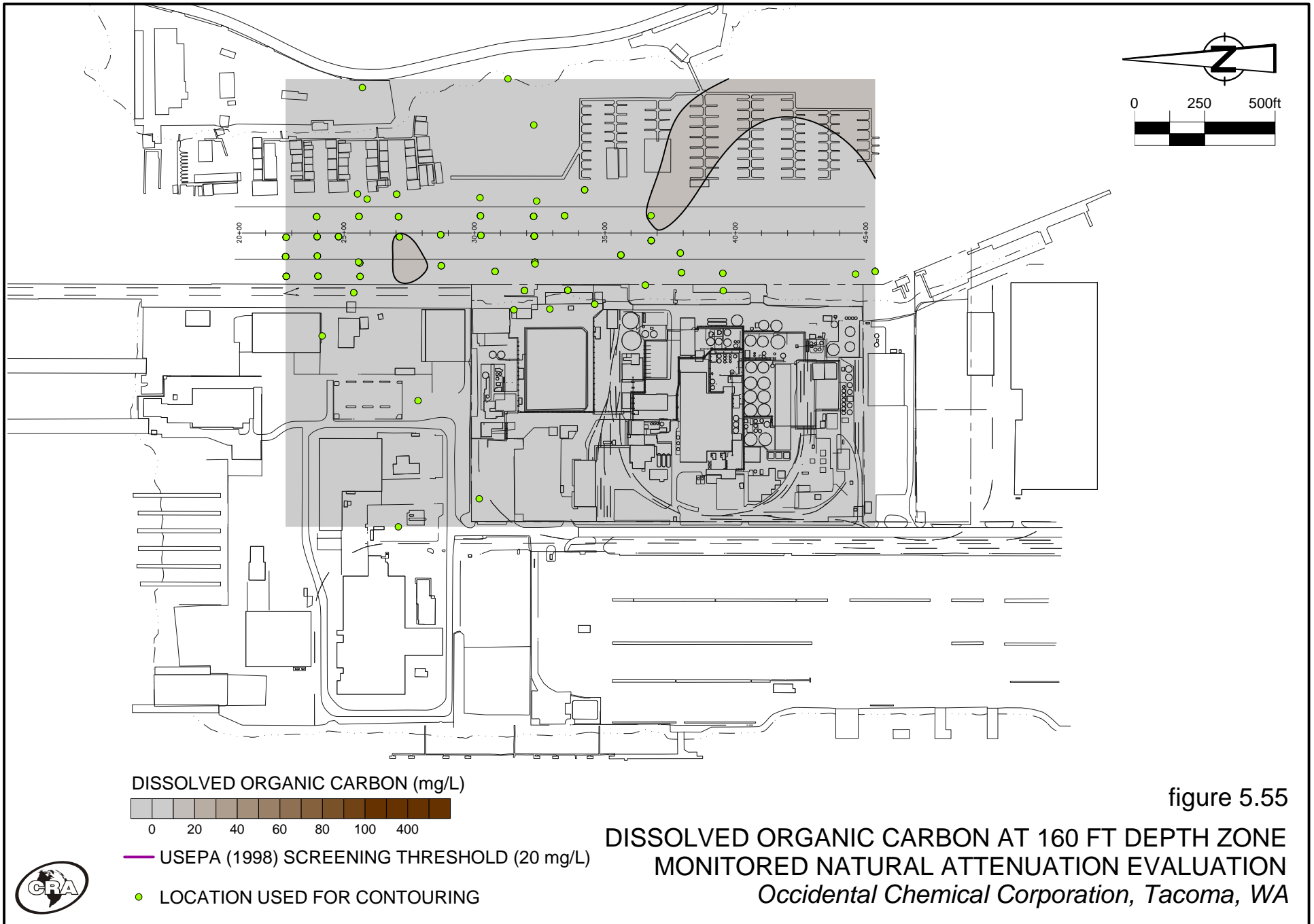


figure 5.54



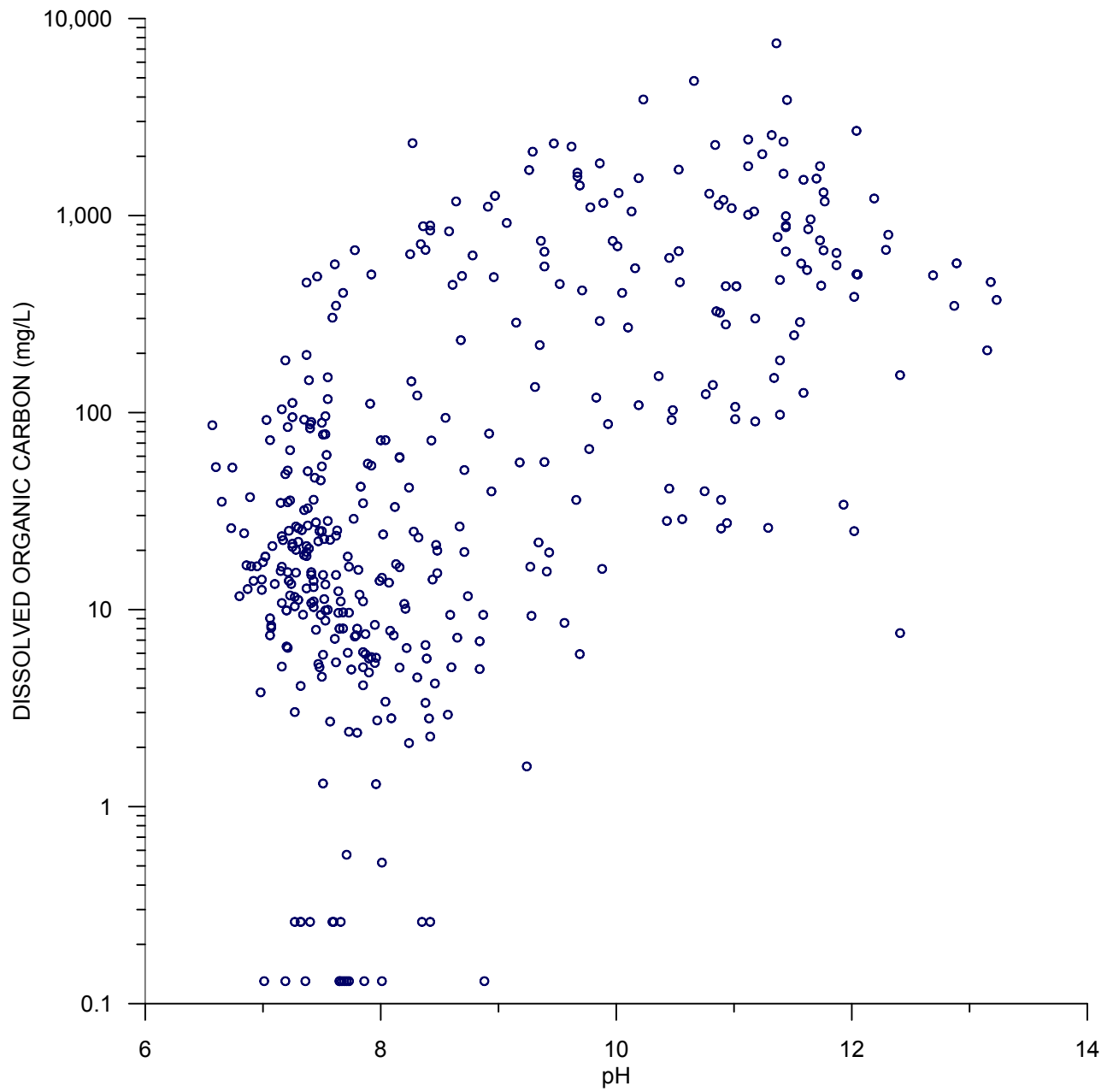


figure 5.56

pH VERSUS LOG DISSOLVED ORGANIC CARBON  
MONITORED NATURAL ATTENUATION EVALUATION  
*Occidental Chemical Corporation, Tacoma, WA*



## Tables

TABLE 3.1

GROUNDWATER CONSTITUENTS OF CONCERN  
OCCIDENTAL CHEMICAL FACILITY  
TACOMA, WASHINGTON

Volatiles	1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethene Benzene Carbon Tetrachloride Chloroform (Trichloromethane) Methylene chloride Tetrachloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene Trichloroethene Vinyl Chloride
Semi-Volatiles	Hexachlorobutadiene Hexachlorobenzene
PCB	Total PCBs
Metals	Arsenic Chromium, total Copper Lead Mercury Nickel Thallium Zinc
General Chemistry	pH

TABLE 4.1

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

Sample Location	Sample Date	Dissolved Oxygen	Oxidation Reduction	pH	Alkalinity	Alkalinity, Total	Dissolved Organic	Nitrate	Nitrate (as N)	Sulfate	Sulfate
		(DO)	Potential		(dissolved)	(as CaCO3)	Carbon	(as N)	(dissolved)	(ug/L)	(dissolved)
		(ug/L)	(ORP)		(ug/L)	(ug/L)	(DOC)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
		(millivolts)				(ug/L)					
		Field	Field	Field	Lab	Lab	Lab	Lab	Lab	Lab	Lab
1-45	1/23/1989	-	-	9.99	-	-	-	-	-	-	-
1-45	4/13/2006	0	-236	8.45	-	-	-	-	-	-	-
4-45	1/20/1989	-	-	6.38	-	-	-	-	-	-	-
11-45	8/7/2012	-	-	-	-	286000	-	-	-	470000	-
11-45	8/7/2012	0	-497	8.27	-	277000	-	-	-	330000	-
11-45	11/4/1997	-	-	8.72	-	-	-	-	-	-	-
11-45	2/10/1998	-	-	7.83	-	-	-	-	-	-	-
11-45	2/10/1998	-	-	7.83	-	-	-	-	-	-	-
11-45	8/19/1997	-	-	7.8	-	-	-	-	-	-	-
11-45	1/17/1989	-	-	7.74	-	-	-	-	-	-	-
11-45	2/2/1999	-	-	7.72	-	-	-	-	-	-	-
11-45	5/19/1997	-	-	7.7	-	-	-	-	-	-	-
11-45	2/12/1997	-	-	7.6	-	-	-	-	-	-	-
11-45	2/12/1997	-	-	7.6	-	-	-	-	-	-	-
11-45	8/21/1996	-	-	7.6	-	-	-	-	-	-	-
11-45	8/21/1996	-	-	7.6	-	-	-	-	-	-	-
11-45	5/19/1998	-	-	7.59	-	-	-	-	-	-	-
11-45	2/7/2000	-	-	7.54	-	-	-	-	-	-	-
11-45	5/8/1996	-	-	7.5	-	-	-	-	-	-	-
11-45	5/8/1996	-	-	7.5	-	-	-	-	-	-	-
11-45	8/10/1998	-	-	7.34	-	-	-	-	-	-	-
11-45	11/12/1996	-	-	5.6	-	-	-	-	-	-	-
11-45	11/12/1996	-	-	5.6	-	-	-	-	-	-	-
5-50	2/15/2001	-	-	11.13	-	-	-	-	-	-	-
5-50	11/4/1999	-	-	10.97	-	-	-	-	-	-	-
5-50	5/12/2000	-	-	10.97	-	-	-	-	-	-	-
5-50	8/16/1998	-	-	10.94	-	-	-	-	-	-	-
5-50	8/3/2000	-	-	10.89	-	-	-	-	-	-	-
5-50	7/31/2002	-	-	10.84	-	-	-	-	-	-	-
5-50	2/4/2000	-	-	10.74	-	-	-	-	-	-	-
5-50	11/20/1997	-	-	9.62	-	-	-	-	-	-	-
10-50	8/20/2012	0	-345	8.7	-	457000	-	-	-	1790000	-
10-50	11/8/1988	-	-	5.94	-	-	-	-	-	-	-
8-54	8/19/2003	-	-	8.78	-	-	-	-	-	-	-
11-75	8/7/2012	9920	95	8.72	-	327000	-	-	-	520000	-
4-83	1/21/1989	-	-	9.89	-	-	-	-	-	-	-
1-25	1/23/1989	-	-	7.98	-	-	-	-	-	-	-
4-25	1/20/1989	-	-	6.62	-	-	-	-	-	-	-
5-25	2/7/2003	-	-	10.28	-	-	-	-	-	-	-
5-25	11/6/2002	-	-	10.26	-	-	-	-	-	-	-
7-25	1/19/1989	-	-	10.2	-	-	-	-	-	-	-
7-25	8/8/2012	80	-92	8.26	-	407000	-	-	-	44900	-
10-24	8/21/2012	0	-106	7.27	-	469000	-	-	-	219000	-
10-24	11/8/1988	-	-	6.15	-	-	-	-	-	-	-
11-25	8/6/2012	0	-265	8.5	-	354000	-	-	-	70000	-
11-25	4/15/2006	0	-213	8.06	-	-	-	-	-	-	-
12-25	2/6/2003	-	-	7.01	-	-	-	-	-	-	-
10-100	8/20/2012	0	-326	8.04	-	851000	-	-	-	439000	-
1-100	3/5/1998	-	-	11.99	-	-	-	-	-	-	-
1-100	1/23/1989	-	-	11.37	-	-	-	-	-	-	-
1-100R	2/24/2001	-	-	12.71	-	-	-	-	-	-	-
1-100R	4/18/2006	0	-538	12.69	34700000	-	497000	-	400 U	-	2610000
1-100R	2/14/2000	-	-	11.97	-	-	-	-	-	-	-



TABLE 4.1

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
1-100R	2/10/2004	-	-	11.96	-	-	-	-	-	-	-
1-100R	2/10/2004	-	-	11.96	-	-	-	-	-	-	-
1-100R	8/9/2000	-	-	11.94	-	-	-	-	-	-	-
1-100R	2/7/1999	-	-	11.86	-	-	-	-	-	-	-
1-100R	6/3/1998	-	-	11.83	-	-	-	-	-	-	-
1-100R	11/9/1998	-	-	11.77	-	-	-	-	-	-	-
1-100R	11/7/2002	-	-	11.75	-	-	-	-	-	-	-
1-100R	2/12/2003	-	-	11.74	-	-	-	-	-	-	-
1-100R	2/12/2003	-	-	11.74	-	-	-	-	-	-	-
1-100R	8/4/2002	-	-	11.72	-	-	-	-	-	-	-
1-100R	8/16/2003	-	-	11.66	-	-	-	-	-	-	-
1-100R	5/20/1999	-	-	11.54	-	-	-	-	-	-	-
1-100R	8/16/1998	-	-	11.5	-	-	-	-	-	-	-
11-100	11/4/1997	-	-	7.74	-	-	-	-	-	-	-
11-100	4/24/2006	0	-241	7.62	336000	-	5400	-	22100	-	908000
11-100	11/9/2002	-	-	7.09	-	-	-	-	-	-	-
11-100	8/7/2002	-	-	7.02	-	-	-	-	-	-	-
11-100	2/11/2003	-	-	7.02	-	-	-	-	-	-	-
11-100	2/12/2004	-	-	7.02	-	-	-	-	-	-	-
11-100	2/12/2004	-	-	7.02	-	-	-	-	-	-	-
11-100	8/18/2003	-	-	7	-	-	-	-	-	-	-
11-100	5/19/1997	-	-	7	-	-	-	-	-	-	-
11-100	2/8/1999	-	-	6.97	-	-	-	-	-	-	-
11-100	8/10/1998	-	-	6.95	-	-	-	-	-	-	-
11-100	2/12/1997	-	-	6.9	-	-	-	-	-	-	-
11-100	5/8/1996	-	-	6.9	-	-	-	-	-	-	-
11-100	8/7/2012	0	-168	6.88	-	404000	-	-	-	1120000	-
11-100	2/10/1998	-	-	6.88	-	-	-	-	-	-	-
11-100	8/19/1997	-	-	6.8	-	-	-	-	-	-	-
11-100	2/7/2000	-	-	6.76	-	-	-	-	-	-	-
11-100	5/19/1998	-	-	6.76	-	-	-	-	-	-	-
11-100	8/21/1996	-	-	6.7	-	-	-	-	-	-	-
11-100	11/12/1996	-	-	5.2	-	-	-	-	-	-	-
12-100	8/24/2012	0	-329	8.97	-	1130000	-	-	-	39400	-
12-100	4/26/2006	140	-342	7.89	-	-	-	-	-	-	-
13-25	11/8/1988	-	-	7.49	-	-	-	-	-	-	-
13-49	4/26/2006	0	-285	7.57	-	-	2700	-	-	-	-
13-49	1/23/1989	-	-	7.09	-	-	-	-	-	-	-
14-25	2/3/1998	-	-	12.21	-	-	-	-	-	-	-
14-25	5/7/1998	-	-	11.89	-	-	-	-	-	-	-
14-25	1/24/1989	-	-	10.68	-	-	-	-	-	-	-
14-25	11/23/1997	-	-	8.24	-	-	-	-	-	-	-
14-25R	11/21/2005	-	-	-	-	-	22100	-	-	-	-
14-25R	8/13/2012	0	-406	9.27	-	534000	-	-	-	18200	-
14-25R	2/23/2001	-	-	9.07	-	-	-	-	-	-	-
14-25R	4/19/2006	0	-350	8.84	328000	-	6900	-	8 U	-	70100
14-25R	5/6/2003	-	-	8.71	-	-	-	-	-	-	-
14-25R	8/3/2000	-	-	8.66	-	-	-	-	-	-	-
14-25R	2/3/2000	-	-	8.65	-	-	-	-	-	-	-
14-25R	8/13/2002	-	-	8.64	-	-	-	-	-	-	-
14-25R	2/4/2003	-	-	8.6	-	-	-	-	-	-	-
14-25R	2/4/2003	-	-	8.6	-	-	-	-	-	-	-
14-25R	8/17/2004	-	-	8.33	-	-	-	-	-	-	-
14-25R	11/7/2002	-	-	8.33	-	-	-	-	-	-	-
14-25R	6/1/2004	-	-	8.24	-	-	-	-	-	-	-
14-25R	5/12/2004	-	-	8.24	-	-	-	-	-	-	-
14-25R	6/1/2004	-	-	8.24	-	-	-	-	-	-	-
14-25R	2/10/2004	-	-	8.22	-	-	-	-	-	-	-

TABLE 4.1

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
14-25R	8/20/1998	-	-	8.22	-	-	-	-	-	-	-
14-25R	11/19/2003	-	-	8.2	-	-	-	-	-	-	-
14-50	2/3/1998	-	-	11.5	-	-	-	-	-	-	-
14-50	5/7/1998	-	-	11.29	-	-	-	-	-	-	-
14-50	1/23/1989	-	-	10.8	-	-	-	-	-	-	-
14-50	11/23/1997	-	-	8.42	-	-	-	-	-	-	-
14-50R	11/21/2005	-	-	-	-	-	70800	-	-	-	-
14-50R	11/21/2005	-	-	-	-	-	35600	-	-	-	-
14-50R	5/6/2003	-	-	11.94	-	-	-	-	-	-	-
14-50R	2/8/2005	-	-	11.57	-	-	-	-	-	-	-
14-50R	2/23/2001	-	-	11.28	-	-	-	-	-	-	-
14-50R	11/12/2004	-	-	11.27	-	-	-	-	-	-	-
14-50R	11/8/1998	-	-	11.27	-	-	-	-	-	-	-
14-50R	8/17/2004	-	-	11.16	-	-	-	-	-	-	-
14-50R	8/13/2012	0	-494	10.95	-	1220000	-	-	-	1370000	-
14-50R	2/10/2004	-	-	10.94	-	-	-	-	-	-	-
14-50R	8/20/1998	-	-	10.9	-	-	-	-	-	-	-
14-50R	6/1/2004	-	-	10.89	-	-	-	-	-	-	-
14-50R	4/19/2006	0	-378	10.89	1980000	-	36000	-	80 U	-	463000
14-50R	2/4/1999	-	-	10.84	-	-	-	-	-	-	-
14-50R	5/12/2004	-	-	10.84	-	-	-	-	-	-	-
14-50R	2/11/2000	-	-	10.65	-	-	-	-	-	-	-
14-50R	5/11/2005	-	-	10.64	-	-	-	-	-	-	-
14-50R	8/13/2002	-	-	10.62	-	-	-	-	-	-	-
14-50R	11/19/2003	-	-	10.59	-	-	-	-	-	-	-
14-50R	2/4/2003	-	-	10.59	-	-	-	-	-	-	-
14-50R	11/7/2002	-	-	10.52	-	-	-	-	-	-	-
14-50R	8/15/2003	-	-	10.47	-	-	-	-	-	-	-
15-25R	5/4/2002	-	-	8.76	-	-	-	-	-	-	-
15-25R	8/3/2000	-	-	8.68	-	-	-	-	-	-	-
15-25R	2/3/2000	-	-	8.65	-	-	-	-	-	-	-
15-25R	1/29/2002	-	-	8.62	-	-	-	-	-	-	-
15-25R	8/13/1998	-	-	8.4	-	-	-	-	-	-	-
19-50	2/4/1998	-	-	13.33	-	-	-	-	-	-	-
19-50	5/8/1998	-	-	13.08	-	-	-	-	-	-	-
19-50	5/8/1998	-	-	13.08	-	-	-	-	-	-	-
19-50	2/6/1997	-	-	13	-	-	-	-	-	-	-
19-50	2/26/1996	-	-	12.7	-	-	-	-	-	-	-
19-50	5/15/1996	-	-	12.4	-	-	-	-	-	-	-
19-50	11/8/1996	-	-	12	-	-	-	-	-	-	-
19-50	8/27/1997	-	-	11.9	-	-	-	-	-	-	-
19-50	11/4/1988	-	-	11.55	-	-	-	-	-	-	-
19-50	5/14/1997	-	-	11.5	-	-	-	-	-	-	-
19-50	8/15/1996	-	-	11.5	-	-	-	-	-	-	-
19-50	11/23/1997	-	-	8.36	-	-	-	-	-	-	-
19-50R	2/15/2001	-	-	11.97	-	-	-	-	-	-	-
19-50R	2/4/2004	-	-	11.75	-	-	-	-	-	-	-
19-50R	4/6/2006	340	-425	11.64	-	-	-	-	-	-	-
19-50R	2/5/1999	-	-	11.58	-	-	-	-	-	-	-
19-50R	2/7/2003	-	-	11.46	-	-	-	-	-	-	-
19-50R	8/14/2003	-	-	11.45	-	-	-	-	-	-	-
19-50R	7/31/2002	-	-	11.39	-	-	-	-	-	-	-
19-50R	8/1/2000	-	-	11.33	-	-	-	-	-	-	-
19-50R	2/1/2000	-	-	11.31	-	-	-	-	-	-	-
19-50R	8/19/1998	-	-	11.07	-	-	-	-	-	-	-
20-25	2/6/1998	-	-	8.5	-	-	-	-	-	-	-
20-25	1/21/1989	-	-	7.67	-	-	-	-	-	-	-
20-50	2/6/1998	-	-	10.26	-	-	-	-	-	-	-

TABLE 4.1

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
20-50	1/21/1989	-	-	9.61	-	-	-	-	-	-	-
21-25	11/18/1997	-	-	9.32	-	-	-	-	-	-	-
21-25	8/28/1997	-	-	8.8	-	-	-	-	-	-	-
21-25	5/9/1997	-	-	7.9	-	-	-	-	-	-	-
21-25	5/7/1998	-	-	7.7	-	-	-	-	-	-	-
21-25	2/4/1998	-	-	7.69	-	-	-	-	-	-	-
21-25	2/4/1997	-	-	7.6	-	-	-	-	-	-	-
21-25	11/11/1996	-	-	7.2	-	-	-	-	-	-	-
21-25	5/10/1996	-	-	6.9	-	-	-	-	-	-	-
21-25	1/24/1989	-	-	6.79	-	-	-	-	-	-	-
21-25R	4/19/2006	0	-232	8.48	275000	-	19900	-	8 U	-	175000
21-25R	2/5/2004	-	-	7.62	-	-	-	-	-	-	-
21-25R	8/14/2003	-	-	7.39	-	-	-	-	-	-	-
21-25R	7/31/2002	-	-	7.34	-	-	-	-	-	-	-
21-25R	2/5/1999	-	-	7.22	-	-	-	-	-	-	-
21-25R	2/15/2001	-	-	7.21	-	-	-	-	-	-	-
21-25R	2/9/2003	-	-	7.18	-	-	-	-	-	-	-
21-25R	2/9/2003	-	-	7.18	-	-	-	-	-	-	-
21-25R	8/19/1998	-	-	7.18	-	-	-	-	-	-	-
21-25R	2/4/2000	-	-	7.13	-	-	-	-	-	-	-
21-25R	8/3/2000	-	-	6.77	-	-	-	-	-	-	-
21-48	5/10/1996	-	-	10	-	-	-	-	-	-	-
21-48	2/17/2004	-	-	9.42	-	-	-	-	-	-	-
21-48	11/7/2002	-	-	9.42	-	-	-	-	-	-	-
21-48	8/16/2003	-	-	9.09	-	-	-	-	-	-	-
21-48	2/11/2003	-	-	9.05	-	-	-	-	-	-	-
21-48	8/28/1997	-	-	8.7	-	-	-	-	-	-	-
21-48	8/4/2002	-	-	8.15	-	-	-	-	-	-	-
21-48	2/6/1999	-	-	8.14	-	-	-	-	-	-	-
21-48	11/22/1997	-	-	8.1	-	-	-	-	-	-	-
21-48	2/22/1996	-	-	8	-	-	-	-	-	-	-
21-48	5/14/1998	-	-	7.98	-	-	-	-	-	-	-
21-48	2/10/1998	-	-	7.98	-	-	-	-	-	-	-
21-48	8/13/1998	-	-	7.95	-	-	-	-	-	-	-
21-48	5/9/1997	-	-	7.9	-	-	-	-	-	-	-
21-48	2/4/1997	-	-	7.9	-	-	-	-	-	-	-
21-48	8/6/2000	-	-	7.84	-	-	-	-	-	-	-
21-48	8/16/1996	-	-	7.8	-	-	-	-	-	-	-
21-48	1/22/2002	-	-	7.72	-	-	-	-	-	-	-
21-48	2/15/2001	-	-	7.65	-	-	-	-	-	-	-
21-48	2/4/2000	-	-	7.61	-	-	-	-	-	-	-
21-48	8/16/1999	-	-	7.6	-	-	-	-	-	-	-
21-48	1/24/1989	-	-	7.5	-	-	-	-	-	-	-
21-48	11/11/1996	-	-	7.1	-	-	-	-	-	-	-
21C-25	7/25/2012	0	-203	8.85	-	231000	-	-	-	55500	-
22-25	1/24/1989	-	-	6.51	-	-	-	-	-	-	-
22-25R	5/10/1996	-	-	9.9	-	-	-	-	-	-	-
22-25R	2/27/1996	-	-	9.5	-	-	-	-	-	-	-
22-25R	8/28/1997	-	-	9.1	-	-	-	-	-	-	-
22-25R	11/22/1997	-	-	8.09	-	-	-	-	-	-	-
22-25R	8/16/1996	-	-	7.4	-	-	-	-	-	-	-
22-25R	2/5/1997	-	-	7.1	-	-	-	-	-	-	-
22-25R	5/14/1998	-	-	7.06	-	-	-	-	-	-	-
22-25R	2/10/1998	-	-	7	-	-	-	-	-	-	-
22-25R	11/4/1996	-	-	6.9	-	-	-	-	-	-	-
22-25R	5/12/1997	-	-	5.7	-	-	-	-	-	-	-
22-50	2/10/1998	-	-	11.74	-	-	-	-	-	-	-
22-50	2/5/1997	-	-	11.7	-	-	-	-	-	-	-

TABLE 4.1

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
22-50	11/4/1996	-	-	11.7	-	-	-	-	-	-	-
22-50	4/13/2006	0	-320	11.31	-	-	-	-	-	-	-
22-50	8/16/1996	-	-	11.3	-	-	-	-	-	-	-
22-50	2/27/1996	-	-	11.3	-	-	-	-	-	-	-
22-50	11/7/2002	-	-	11.28	-	-	-	-	-	-	-
22-50	2/15/2001	-	-	11.23	-	-	-	-	-	-	-
22-50	2/17/2004	-	-	11.22	-	-	-	-	-	-	-
22-50	8/12/1997	-	-	11.2	-	-	-	-	-	-	-
22-50	8/7/2000	-	-	11.08	-	-	-	-	-	-	-
22-50	8/17/2012	1180	-425	11.07	-	501000	-	-	-	1640000	-
22-50	2/11/2003	-	-	10.99	-	-	-	-	-	-	-
22-50	5/14/1998	-	-	10.9	-	-	-	-	-	-	-
22-50	8/16/2003	-	-	10.81	-	-	-	-	-	-	-
22-50	8/16/2003	-	-	10.81	-	-	-	-	-	-	-
22-50	2/5/2000	-	-	10.8	-	-	-	-	-	-	-
22-50	8/4/2002	-	-	10.62	-	-	-	-	-	-	-
22-50	1/24/1989	-	-	10.49	-	-	-	-	-	-	-
22-50	8/10/1998	-	-	10.39	-	-	-	-	-	-	-
22-50	5/12/1997	-	-	10.2	-	-	-	-	-	-	-
22-50	5/10/1996	-	-	10.2	-	-	-	-	-	-	-
22-50	11/22/1997	-	-	9	-	-	-	-	-	-	-
22-70	11/4/1996	-	-	10.9	-	-	-	-	-	-	-
22-70	2/10/1998	-	-	10.86	-	-	-	-	-	-	-
22-70	2/5/1997	-	-	10.8	-	-	-	-	-	-	-
22-70	8/12/1996	-	-	10.5	-	-	-	-	-	-	-
22-70	8/12/1997	-	-	10.5	-	-	-	-	-	-	-
22-70	8/16/1996	-	-	10.4	-	-	-	-	-	-	-
22-70	5/10/1996	-	-	10.1	-	-	-	-	-	-	-
22-70	2/27/1996	-	-	10	-	-	-	-	-	-	-
22-70	5/12/1997	-	-	9.9	-	-	-	-	-	-	-
22-70	6/3/1998	-	-	9.9	-	-	-	-	-	-	-
22-70	2/26/2001	-	-	9.49	-	-	-	-	-	-	-
22-70	11/22/1997	-	-	9.15	-	-	-	-	-	-	-
22-70	8/8/1998	-	-	8.68	-	-	-	-	-	-	-
22-70	8/4/2000	-	-	8.67	-	-	-	-	-	-	-
22-70	8/1/2002	-	-	8.66	-	-	-	-	-	-	-
22-70	1/28/2002	-	-	8.51	-	-	-	-	-	-	-
22-70	8/14/2003	-	-	8.28	-	-	-	-	-	-	-
22-70	8/14/2003	-	-	8.28	-	-	-	-	-	-	-
24-35	8/15/2012	0	-293	8.64	-	217000	-	-	-	27000	-
24-35	1/18/1989	-	-	7.36	-	-	-	-	-	-	-
24-50	8/15/2012	0	-248	8.48	-	225000	-	-	-	24000	-
24-50	1/18/1989	-	-	7.03	-	-	-	-	-	-	-
26-25	11/7/1988	-	-	7.15	-	-	-	-	-	-	-
26-50	11/7/1988	-	-	7.3	-	-	-	-	-	-	-
27-50	11/7/1988	-	-	7.66	-	-	-	-	-	-	-
31-25	1/17/1989	-	-	6.93	-	-	-	-	-	-	-
32-25	1/17/1989	-	-	6.48	-	-	-	-	-	-	-
32-50	2/11/1997	-	-	7.7	-	-	-	-	-	-	-
32-50	5/9/1996	-	-	7.5	-	-	-	-	-	-	-
32-50	8/26/1996	-	-	7.3	-	-	-	-	-	-	-
32-50	8/26/1996	-	-	7.3	-	-	-	-	-	-	-
32-50	1/17/1989	-	-	6.96	-	-	-	-	-	-	-
32-50	5/28/1997	-	-	6.4	-	-	-	-	-	-	-
32-50	11/21/1996	-	-	6.4	-	-	-	-	-	-	-
32-50R	2/12/2003	-	-	8.79	-	-	-	-	-	-	-
32-50R	2/14/2004	-	-	8.7	-	-	-	-	-	-	-
32-50R	2/14/2004	-	-	8.7	-	-	-	-	-	-	-

TABLE 4.1

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
32-50R	2/1/1999	-	-	8.45	-	-	-	-	-	-	-
32-50R	8/18/2003	-	-	8.39	-	-	-	-	-	-	-
32-50R	2/11/2000	-	-	8.16	-	-	-	-	-	-	-
32-50R	8/7/2000	-	-	8.14	-	-	-	-	-	-	-
32-50R	11/9/2002	-	-	8.12	-	-	-	-	-	-	-
32-50R	2/17/2001	-	-	8.07	-	-	-	-	-	-	-
32-50R	8/6/2002	-	-	7.94	-	-	-	-	-	-	-
32-50R	11/6/1998	-	-	7.84	-	-	-	-	-	-	-
32-50R	5/18/1999	-	-	7.81	-	-	-	-	-	-	-
32-50R	8/24/2012	740	-87	7.7	-	268000	-	-	-	2990	-
32-50R	8/5/1998	-	-	7.67	-	-	-	-	-	-	-
32-50R	6/4/1998	-	-	7.52	-	-	-	-	-	-	-
32-50R	4/5/2006	450	-198	7.11	-	-	-	-	-	-	-
33-25	11/8/1988	-	-	7.93	-	-	-	-	-	-	-
33-50B	11/8/1988	-	-	8.23	-	-	-	-	-	-	-
34-100	5/1/2006	690	-220	7.99	-	-	14000	-	-	-	-
34-25	12/8/2008	0	-167	7.27	-	-	-	-	-	-	-
34-25	4/10/2006	1000	-221	7.25	-	-	-	-	-	-	-
34-25R	8/20/2012	0	-160	8.26	-	203000	-	-	-	23700	-
34-50	2/7/2004	-	-	9.26	-	-	-	-	-	-	-
34-50	8/10/2000	-	-	9.2	-	-	-	-	-	-	-
34-50	8/18/2003	-	-	9.1	-	-	-	-	-	-	-
34-50	2/1/1999	-	-	8.84	-	-	-	-	-	-	-
34-50	2/22/2001	-	-	8.78	-	-	-	-	-	-	-
34-50	2/9/2003	-	-	8.68	-	-	-	-	-	-	-
34-50	2/2/2000	-	-	8.61	-	-	-	-	-	-	-
34-50	11/3/1997	-	-	8.5	-	-	-	-	-	-	-
34-50	11/6/1998	-	-	8.49	-	-	-	-	-	-	-
34-50	8/1/2002	-	-	8.33	-	-	-	-	-	-	-
34-50	5/18/1999	-	-	8.26	-	-	-	-	-	-	-
34-50	8/8/1998	-	-	8.22	-	-	-	-	-	-	-
34-50	4/10/2006	630	-199	8.16	-	-	-	-	-	-	-
34-50	5/18/1998	-	-	8.01	-	-	-	-	-	-	-
34-50	2/13/1998	-	-	7.9	-	-	-	-	-	-	-
34-50	5/9/1996	-	-	7.8	-	-	-	-	-	-	-
34-50	8/23/1996	-	-	7.7	-	-	-	-	-	-	-
34-50	2/11/1997	-	-	7.7	-	-	-	-	-	-	-
34-50	8/19/1997	-	-	7.6	-	-	-	-	-	-	-
34-50	5/20/1997	-	-	7.3	-	-	-	-	-	-	-
34-50	11/18/1996	-	-	6.9	-	-	-	-	-	-	-
34-50	11/18/1996	-	-	6.9	-	-	-	-	-	-	-
34-50R	8/20/2012	0	-179	8.38	-	193000	-	-	-	5320	-
35-25	8/15/2012	-	-	-	-	285000	-	-	-	104000	-
35-25	2/18/2005	-	-	8.84	-	-	-	-	-	-	-
35-25	11/13/2004	-	-	8.55	-	-	-	-	-	-	-
35-25	2/9/2004	-	-	8.44	-	-	-	-	-	-	-
35-25	5/12/2004	-	-	8.37	-	-	-	-	-	-	-
35-25	5/7/2003	-	-	8.24	-	-	-	-	-	-	-
35-25	5/18/2005	-	-	8.18	-	-	-	-	-	-	-
35-25	8/18/2003	-	-	8.15	-	-	-	-	-	-	-
35-25	2/17/2001	-	-	8.15	-	-	-	-	-	-	-
35-25	12/8/2008	0	-175	8.05	-	-	-	-	-	-	-
35-25	2/6/2003	-	-	8.03	-	-	-	-	-	-	-
35-25	2/6/2003	-	-	8.03	-	-	-	-	-	-	-
35-25	11/8/2002	-	-	7.83	-	-	-	-	-	-	-
35-25	8/15/2012	0	-192	7.74	-	279000	-	-	-	104000	-
35-25	8/6/2002	-	-	7.68	-	-	-	-	-	-	-
35-25	4/14/2006	670	-132	7.48	-	-	-	-	-	-	-

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
35-25	11/18/2003	-	-	7.29	-	-	-	-	-	-	-
36-100R	8/31/1998	-	-	7.35	-	-	-	-	-	-	-
36-100R	11/6/1998	-	-	7.25	-	-	-	-	-	-	-
36-100R	5/19/1999	-	-	7.22	-	-	-	-	-	-	-
36-25	5/15/2001	-	-	8.64	-	-	-	-	-	-	-
36-25	5/21/1998	-	-	8.49	-	-	-	-	-	-	-
36-25	8/5/2002	-	-	7.8	-	-	-	-	-	-	-
36-50	2/9/2005	-	-	8.98	-	-	-	-	-	-	-
36-50	2/9/2005	-	-	8.98	-	-	-	-	-	-	-
36-50	11/10/1999	-	-	8.81	-	-	-	-	-	-	-
36-50	2/4/1999	-	-	8.67	-	-	-	-	-	-	-
36-50	11/13/2004	-	-	8.57	-	-	-	-	-	-	-
36-50	5/12/2005	-	-	8.55	-	-	-	-	-	-	-
36-50	8/17/2004	-	-	8.45	-	-	-	-	-	-	-
36-50	8/17/2004	-	-	8.45	-	-	-	-	-	-	-
36-50	4/6/2006	240	-367	8.33	-	-	-	-	-	-	-
36-50	2/12/2004	-	-	8.32	-	-	-	-	-	-	-
36-50	2/14/1997	-	-	8.3	-	-	-	-	-	-	-
36-50	5/12/2004	-	-	8.29	-	-	-	-	-	-	-
36-50	5/13/2003	-	-	8.29	-	-	-	-	-	-	-
36-50	8/17/2003	-	-	8.25	-	-	-	-	-	-	-
36-50	11/5/1997	-	-	8.25	-	-	-	-	-	-	-
36-50	8/19/1997	-	-	8.2	-	-	-	-	-	-	-
36-50	2/10/2003	-	-	8.16	-	-	-	-	-	-	-
36-50	5/15/2001	-	-	8.13	-	-	-	-	-	-	-
36-50	2/14/2001	-	-	8.06	-	-	-	-	-	-	-
36-50	11/11/2002	-	-	8.03	-	-	-	-	-	-	-
36-50	8/5/2002	-	-	8.02	-	-	-	-	-	-	-
36-50	11/18/2003	-	-	7.96	-	-	-	-	-	-	-
36-50	8/10/1998	-	-	7.94	-	-	-	-	-	-	-
36-50	2/13/1998	-	-	7.91	-	-	-	-	-	-	-
36-50	8/26/1996	-	-	7.9	-	-	-	-	-	-	-
36-50	8/6/2000	-	-	7.86	-	-	-	-	-	-	-
36-50	5/21/1998	-	-	7.86	-	-	-	-	-	-	-
36-50	5/15/1997	-	-	7.8	-	-	-	-	-	-	-
36-50	11/6/1998	-	-	7.77	-	-	-	-	-	-	-
36-50	2/9/2000	-	-	7.6	-	-	-	-	-	-	-
36-50	5/15/2000	-	-	7.13	-	-	-	-	-	-	-
36-50	5/19/1999	-	-	7.06	-	-	-	-	-	-	-
36-50	11/14/1996	-	-	6.6	-	-	-	-	-	-	-
40-100	3/4/1998	-	-	7.52	-	-	-	-	-	-	-
40-100	11/2/1997	-	-	7.51	-	-	-	-	-	-	-
40-100	8/22/1997	-	-	7.4	-	-	-	-	-	-	-
40-100	8/4/1998	-	-	7.19	-	-	-	-	-	-	-
40-100	5/16/1996	-	-	7.1	-	-	-	-	-	-	-
40-100	2/14/1997	-	-	7.1	-	-	-	-	-	-	-
40-100	2/14/1997	-	-	7.1	-	-	-	-	-	-	-
40-100	5/26/1998	-	-	7.06	-	-	-	-	-	-	-
40-100	8/20/1996	-	-	7	-	-	-	-	-	-	-
40-100	5/21/1997	-	-	7	-	-	-	-	-	-	-
40-100	5/21/1997	-	-	7	-	-	-	-	-	-	-
40-100	11/6/1999	-	-	6.81	-	-	-	-	-	-	-
40-100	8/11/2000	-	-	6.73	-	-	-	-	-	-	-
40-100	2/8/2000	-	-	6.72	-	-	-	-	-	-	-
40-100	5/13/2000	-	-	6.7	-	-	-	-	-	-	-
40-100	5/19/1999	-	-	6.69	-	-	-	-	-	-	-
40-100	11/15/1996	-	-	6.3	-	-	-	-	-	-	-
40-100	11/13/1998	-	-	6.1	-	-	-	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
40-100	2/11/1999	-	-	5.86	-	-	-	-	-	-	-
40-100R	8/21/2012	6990	-124	7.3	-	861000	-	-	-	1970000	-
40-100R	4/7/2006	380	-204	7.09	-	-	-	-	-	-	-
40-100R	2/15/2005	-	-	6.96	-	-	-	-	-	-	-
40-100R	5/18/2005	-	-	6.78	-	-	-	-	-	-	-
40-100R	5/18/2005	-	-	6.78	-	-	-	-	-	-	-
40-100R	2/16/2004	-	-	6.78	-	-	-	-	-	-	-
40-100R	3/3/2001	-	-	6.73	-	-	-	-	-	-	-
40-100R	8/18/2003	-	-	6.73	-	-	-	-	-	-	-
40-100R	5/13/2004	-	-	6.7	-	-	-	-	-	-	-
40-100R	5/18/2001	-	-	6.7	-	-	-	-	-	-	-
40-100R	11/11/2002	-	-	6.66	-	-	-	-	-	-	-
40-100R	5/7/2003	-	-	6.64	-	-	-	-	-	-	-
40-100R	8/8/2002	-	-	6.57	-	-	-	-	-	-	-
40-100R	8/18/2004	-	-	6.56	-	-	-	-	-	-	-
40-100R	2/6/2003	-	-	6.4	-	-	-	-	-	-	-
40-100R	11/17/2003	-	-	6.37	-	-	-	-	-	-	-
40-50	11/2/1997	-	-	8.69	-	-	-	-	-	-	-
40-50	8/20/1996	-	-	8.6	-	-	-	-	-	-	-
40-50	2/14/1997	-	-	8.2	-	-	-	-	-	-	-
40-50	2/14/1998	-	-	7.73	-	-	-	-	-	-	-
40-50	11/15/1996	-	-	7.6	-	-	-	-	-	-	-
40-50	5/23/1998	-	-	7.05	-	-	-	-	-	-	-
40-50	5/21/1997	-	-	6.9	-	-	-	-	-	-	-
40A-100	4/7/2006	200	-213	7.11	-	-	-	-	-	-	-
40A-100	2/16/2005	-	-	7.01	-	-	-	-	-	-	-
40A-100	12/3/2008	110	-141	6.96	-	-	-	-	-	-	-
40A-100	8/18/2003	-	-	6.87	-	-	-	-	-	-	-
40A-100	2/16/2004	-	-	6.77	-	-	-	-	-	-	-
40A-100	11/6/1999	-	-	6.74	-	-	-	-	-	-	-
40A-100	5/13/2004	-	-	6.72	-	-	-	-	-	-	-
40A-100	5/7/2003	-	-	6.72	-	-	-	-	-	-	-
40A-100	2/6/2003	-	-	6.71	-	-	-	-	-	-	-
40A-100	11/9/2002	-	-	6.71	-	-	-	-	-	-	-
40A-100	5/18/2005	-	-	6.7	-	-	-	-	-	-	-
40A-100	8/8/2002	-	-	6.69	-	-	-	-	-	-	-
40A-100	8/18/2004	-	-	6.64	-	-	-	-	-	-	-
40A-100	8/18/2004	-	-	6.64	-	-	-	-	-	-	-
40A-100	11/15/2004	-	-	6.63	-	-	-	-	-	-	-
40A-100	11/15/2004	-	-	6.63	-	-	-	-	-	-	-
40A-100	5/12/2000	-	-	6.6	-	-	-	-	-	-	-
40A-100	5/18/2001	-	-	6.54	-	-	-	-	-	-	-
40A-100	11/17/2003	-	-	6.49	-	-	-	-	-	-	-
40A-100	8/9/2000	-	-	6.49	-	-	-	-	-	-	-
40A-100	5/19/1999	-	-	6.47	-	-	-	-	-	-	-
40A-100	2/19/2001	-	-	6.46	-	-	-	-	-	-	-
40A-100	2/11/1999	-	-	5.73	-	-	-	-	-	-	-
41-138	11/16/1998	-	-	9.49	-	-	-	-	-	-	-
41-138	3/3/1998	-	-	9.29	-	-	-	-	-	-	-
41-138	3/3/1998	-	-	9.29	-	-	-	-	-	-	-
41-138	8/10/2000	-	-	9.01	-	-	-	-	-	-	-
41-138	8/20/1997	-	-	8.9	-	-	-	-	-	-	-
41-138	5/20/1998	-	-	8.87	-	-	-	-	-	-	-
41-138	11/5/1997	-	-	8.78	-	-	-	-	-	-	-
41-138	2/7/1999	-	-	8.66	-	-	-	-	-	-	-
41-138	2/20/2001	-	-	8.62	-	-	-	-	-	-	-
41-138	9/25/1996	-	-	8.6	-	-	-	-	-	-	-
41-138	5/17/1999	-	-	8.58	-	-	-	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
41-138	8/9/1998	-	-	8.54	-	-	-	-	-	-	-
41-138	4/22/2006	0	-333	8.41	-	-	2800	-	-	-	-
41-138	11/11/1996	-	-	8.3	-	-	-	-	-	-	-
41-138	11/11/1996	-	-	8.3	-	-	-	-	-	-	-
41-138	8/19/1996	-	-	7.2	-	-	-	-	-	-	-
41-138	2/11/1997	-	-	7.1	-	-	-	-	-	-	-
41-138	6/18/1996	-	-	7	-	-	-	-	-	-	-
41-138	7/19/1996	-	-	7	-	-	-	-	-	-	-
41-138	5/16/1997	-	-	6.8	-	-	-	-	-	-	-
41-138	5/8/1996	-	-	6.4	-	-	-	-	-	-	-
4-115	1/21/1989	-	-	11.18	-	-	-	-	-	-	-
4-115R	2/13/1999	-	-	11.96	-	-	-	-	-	-	-
4-115R	2/24/1998	-	-	11.91	-	-	-	-	-	-	-
4-115R	3/5/1996	-	-	11.8	-	-	-	-	-	-	-
4-115R	2/3/1997	-	-	11.6	-	-	-	-	-	-	-
4-115R	8/13/1996	-	-	11.6	-	-	-	-	-	-	-
4-115R	2/12/2000	-	-	11.46	-	-	-	-	-	-	-
4-115R	5/22/1998	-	-	11.34	-	-	-	-	-	-	-
4-115R	2/4/2003	-	-	11.12	-	-	-	-	-	-	-
4-115R	5/8/1997	-	-	11.1	-	-	-	-	-	-	-
4-115R	8/20/1998	-	-	10.9	-	-	-	-	-	-	-
4-115R	11/7/1996	-	-	10.8	-	-	-	-	-	-	-
4-115R	9/3/1997	-	-	10.6	-	-	-	-	-	-	-
4-115R	5/7/1996	-	-	10.2	-	-	-	-	-	-	-
4-115R	11/21/1997	-	-	8.77	-	-	-	-	-	-	-
4-175R	11/21/1997	-	-	8.3	-	-	-	-	-	-	-
4-175R	5/6/1998	-	-	7.88	-	-	-	-	-	-	-
41C-130	8/29/2012	-	-	-	-	755000	-	-	-	359000	-
41C-130	8/29/2012	-	-	8.38	-	722000	-	-	-	379000	-
42-50	2/13/1998	-	-	8.76	-	-	-	-	-	-	-
42-50	11/2/1997	-	-	8.58	-	-	-	-	-	-	-
4-25R	11/6/1996	-	-	9.4	-	-	-	-	-	-	-
4-25R	2/3/1997	-	-	9.2	-	-	-	-	-	-	-
4-25R	2/3/1997	-	-	9.2	-	-	-	-	-	-	-
4-25R	8/28/1997	-	-	8.2	-	-	-	-	-	-	-
4-25R	2/22/2001	-	-	7.84	-	-	-	-	-	-	-
4-25R	5/8/1997	-	-	7.7	-	-	-	-	-	-	-
4-25R	4/19/2006	0	-154	7.61	323000	-	7100	-	80 U	-	358000
4-25R	8/12/1996	-	-	7.5	-	-	-	-	-	-	-
4-25R	8/7/1998	-	-	7.42	-	-	-	-	-	-	-
4-25R	8/20/2003	-	-	7.41	-	-	-	-	-	-	-
4-25R	8/20/2003	-	-	7.41	-	-	-	-	-	-	-
4-25R	2/9/2004	-	-	7.41	-	-	-	-	-	-	-
4-25R	11/11/2002	-	-	7.33	-	-	-	-	-	-	-
4-25R	2/12/2000	-	-	7.29	-	-	-	-	-	-	-
4-25R	8/4/2002	-	-	7.17	-	-	-	-	-	-	-
4-25R	11/21/1997	-	-	7.17	-	-	-	-	-	-	-
4-25R	2/17/1998	-	-	7.09	-	-	-	-	-	-	-
4-25R	2/4/2003	-	-	7.08	-	-	-	-	-	-	-
4-25R	8/7/2000	-	-	7.07	-	-	-	-	-	-	-
4-25R	5/6/1998	-	-	6.61	-	-	-	-	-	-	-
4-25R	2/13/1999	-	-	6.18	-	-	-	-	-	-	-
4-25R	5/6/1996	-	-	5.2	-	-	-	-	-	-	-
4-45R	11/6/1996	-	-	9.9	-	-	-	-	-	-	-
4-45R	2/22/2001	-	-	9.8	-	-	-	-	-	-	-
4-45R	2/4/2003	-	-	9.66	-	-	-	-	-	-	-
4-45R	2/12/2000	-	-	9.58	-	-	-	-	-	-	-
4-45R	8/20/2003	-	-	9.56	-	-	-	-	-	-	-



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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
4-45R	8/20/2003	-	-	9.56	-	-	-	-	-	-	-
4-45R	2/17/1998	-	-	9.5	-	-	-	-	-	-	-
4-45R	2/9/2004	-	-	9.47	-	-	-	-	-	-	-
4-45R	8/7/2000	-	-	9.46	-	-	-	-	-	-	-
4-45R	11/11/2002	-	-	9.23	-	-	-	-	-	-	-
4-45R	2/3/1997	-	-	9.2	-	-	-	-	-	-	-
4-45R	8/7/1998	-	-	9.19	-	-	-	-	-	-	-
4-45R	2/13/1999	-	-	9.06	-	-	-	-	-	-	-
4-45R	8/4/2002	-	-	9.02	-	-	-	-	-	-	-
4-45R	8/12/1996	-	-	8.8	-	-	-	-	-	-	-
4-45R	5/6/1998	-	-	8.35	-	-	-	-	-	-	-
4-45R	8/28/1997	-	-	8.1	-	-	-	-	-	-	-
4-45R	5/8/1997	-	-	8	-	-	-	-	-	-	-
4-45R	11/21/1997	-	-	7.63	-	-	-	-	-	-	-
4-45R	5/6/1996	-	-	7	-	-	-	-	-	-	-
45-50	5/17/1996	-	-	8.2	-	-	-	-	-	-	-
45-50	5/17/1996	-	-	8.2	-	-	-	-	-	-	-
45-50	2/19/1997	-	-	8	-	-	-	-	-	-	-
45-50	9/4/1996	-	-	7.8	-	-	-	-	-	-	-
45-50	11/21/1996	-	-	7.7	-	-	-	-	-	-	-
45-50	11/21/1996	-	-	7.7	-	-	-	-	-	-	-
46-50	8/16/1996	-	-	8.1	-	-	-	-	-	-	-
46-50	8/16/1996	-	-	8.1	-	-	-	-	-	-	-
46-50	5/15/1996	-	-	8.1	-	-	-	-	-	-	-
46-50	11/25/1996	-	-	5.2	-	-	-	-	-	-	-
4-83R	2/9/2004	-	-	10.82	-	-	-	-	-	-	-
4-83R	2/9/2004	-	-	10.82	-	-	-	-	-	-	-
4-83R	4/4/2006	310	-409	10.76	-	-	-	-	-	-	-
4-83R	2/25/1998	-	-	10.6	-	-	-	-	-	-	-
4-83R	2/28/1996	-	-	10.6	-	-	-	-	-	-	-
4-83R	8/20/2003	-	-	10.47	-	-	-	-	-	-	-
4-83R	2/13/1999	-	-	10.44	-	-	-	-	-	-	-
4-83R	8/18/1997	-	-	10.4	-	-	-	-	-	-	-
4-83R	2/4/2003	-	-	10.39	-	-	-	-	-	-	-
4-83R	2/12/2000	-	-	10.38	-	-	-	-	-	-	-
4-83R	8/4/2002	-	-	10.29	-	-	-	-	-	-	-
4-83R	8/7/2000	-	-	10.28	-	-	-	-	-	-	-
4-83R	11/9/2002	-	-	10.22	-	-	-	-	-	-	-
4-83R	8/13/1996	-	-	10.2	-	-	-	-	-	-	-
4-83R	5/6/1998	-	-	9.88	-	-	-	-	-	-	-
4-83R	5/6/1998	-	-	9.88	-	-	-	-	-	-	-
4-83R	8/7/1998	-	-	9.83	-	-	-	-	-	-	-
4-83R	2/3/1997	-	-	9.8	-	-	-	-	-	-	-
4-83R	5/7/1996	-	-	9.7	-	-	-	-	-	-	-
4-83R	5/7/1996	-	-	9.7	-	-	-	-	-	-	-
4-83R	5/8/1997	-	-	9.5	-	-	-	-	-	-	-
4-83R	11/6/1996	-	-	8.4	-	-	-	-	-	-	-
4-83R	11/21/1997	-	-	8.01	-	-	-	-	-	-	-
5106-1	9/28/2005	290	-491	13.59	-	-	-	-	-	-	-
5106-1	9/28/2005	260	-494	13.38	-	-	-	-	-	-	-
5106-1	9/28/2005	300	-483	13.17	-	-	-	-	-	-	-
5106-1	9/28/2005	260	-490	13.06	-	-	-	-	-	-	-
5106-1	9/28/2005	330	-460	12.77	-	-	-	-	-	-	-
5106-1	9/27/2005	300	-445	12.69	-	-	-	-	-	-	-
5106-1	9/27/2005	230	-398	12.31	-	-	-	-	-	-	-
5106-1	9/27/2005	240	-351	11.64	-	-	-	-	-	-	-
5106-1	9/27/2005	270	-303	11.09	-	-	-	-	-	-	-
5106-1	9/27/2005	210	-243	10.4	-	-	-	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
5106-1	9/27/2005	210	-243	10.4	-	-	-	-	-	-	-
5106-1	9/28/2005	830	-222	9.88	-	-	-	-	-	-	-
5106-1	9/28/2005	550	-241	9.75	-	-	-	-	-	-	-
5106-1	9/27/2005	300	-186	8.98	-	-	-	-	-	-	-
5106-1	9/27/2005	730	-134	8.22	-	-	-	-	-	-	-
5106-1	9/27/2005	620	-119	8.03	-	-	-	-	-	-	-
5106-1	9/27/2005	470	-152	7.96	-	-	-	-	-	-	-
5106-10	11/3/2005	570	-455	11.42	-	-	2370000	-	-	-	-
5106-10	11/3/2005	270	-409	11.29	-	-	26000 U	-	-	-	-
5106-10	11/3/2005	130	-444	11.24	-	-	2050000	-	-	-	-
5106-10	11/3/2005	430	-397	11.12	-	-	1780000	-	-	-	-
5106-10	11/3/2005	430	-397	11.12	-	-	2430000	-	-	-	-
5106-10	11/3/2005	310	-430	10.84	-	-	2280000	-	-	-	-
5106-10	11/3/2005	490	-457	10.66	-	-	4820000	-	-	-	-
5106-10	11/3/2005	420	-396	9.86	-	-	1840000	-	-	-	-
5106-10	11/3/2005	190	-251	9.07	-	-	917000	-	-	-	-
5106-10	11/4/2005	170	-250	8.94	-	-	39800	-	-	-	-
5106-10	11/4/2005	350	-124	8.87	-	-	9400	-	-	-	-
5106-10	11/4/2005	700	-9	8.71	-	-	19600	-	-	-	-
5106-10	11/7/2005	220	-271	8.47	-	-	21300	-	-	-	-
5106-10	11/3/2005	130	-241	8.27	-	-	2330000	-	-	-	-
5106-10	11/2/2005	1860	-103	8.08	-	-	7800	-	-	-	-
5106-10	11/4/2005	110	-223	7.78	-	-	667000	-	-	-	-
5106-13	11/29/2005	360	-361	10.79	-	-	1290000	-	-	-	-
5106-13	11/29/2005	280	-411	10.19	-	-	1550000	-	-	-	-
5106-13	11/29/2005	450	-309	9.69	-	-	1420000	-	-	-	-
5106-13	11/29/2005	470	-292	9.47	-	-	2320000	-	-	-	-
5106-13	11/29/2005	490	-121	9.39	-	-	56100	-	-	-	-
5106-13	11/29/2005	400	-330	9.36	-	-	744000	-	-	-	-
5106-13	11/29/2005	1000	-27	9.15	-	-	286000	-	-	-	-
5106-13	11/29/2005	410	-54	8.64	-	-	1180000	-	-	-	-
5106-13	11/29/2005	550	-299	8.38	-	-	669000	-	-	-	-
5106-13	11/28/2005	910	-43	7.85	-	-	5100	-	-	-	-
5106-13	11/28/2005	910	-43	7.85	-	-	34700	-	-	-	-
5106-13	11/28/2005	730	-67	7.67	-	-	130 U	-	-	-	-
5106-13	11/28/2005	790	69	7.54	-	-	61000	-	-	-	-
5106-13	11/28/2005	720	7	7.49	-	-	45300	-	-	-	-
5106-13	11/28/2005	550	-85	7.41	-	-	89700	-	-	-	-
5106-13	11/28/2005	720	44	7.4	-	-	87100	-	-	-	-
5106-13	11/28/2005	790	-66	7.37	-	-	196000	-	-	-	-
5106-14	12/2/2005	260	-344	9.97	-	-	743000	-	-	-	-
5106-14	12/1/2005	190	-346	9.78	-	-	1100000	-	-	-	-
5106-14	12/2/2005	380	-301	9.67	-	-	1580000	-	-	-	-
5106-14	12/2/2005	380	-301	9.67	-	-	1650000	-	-	-	-
5106-14	12/2/2005	330	-325	9.62	-	-	2240000	-	-	-	-
5106-14	12/2/2005	250	-322	9.29	-	-	2110000	-	-	-	-
5106-14	12/1/2005	200	-337	8.97	-	-	1260000	-	-	-	-
5106-14	12/1/2005	130	-225	8.69	-	-	494000	-	-	-	-
5106-14	12/2/2005	1140	-14	8.12	-	-	33200	-	-	-	-
5106-14	12/2/2005	250	-141	7.61	-	-	566000	-	-	-	-
5106-14	12/1/2005	740	-112	7.4	-	-	83100	-	-	-	-
5106-14	12/2/2005	410	-64	7.37	-	-	457000	-	-	-	-
5106-14	12/1/2005	720	-23	7.25	-	-	20800	-	-	-	-
5106-14	12/1/2005	720	-23	7.25	-	-	21600	-	-	-	-
5106-14	12/1/2005	520	-129	7.21	-	-	35100	-	-	-	-
5106-19	1/14/2006	0	-153	8.96	-	-	487000	-	-	-	-
5106-19	1/14/2006	40	-121	7.92	-	-	502000	-	-	-	-
5106-2	1/31/2006	-	-493	11.63	-	-	852000	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
5106-2	1/30/2006	-	-466	11.62	-	-	529000	-	-	-	-
5106-2	1/30/2006	0	-456	11.57	-	-	571000	-	-	-	-
5106-2	1/31/2006	0	-492	11.44	-	-	888000	-	-	-	-
5106-2	1/31/2006	0	-492	11.44	-	-	873000	-	-	-	-
5106-2	1/31/2006	0	-477	11.37	-	-	777000	-	-	-	-
5106-2	1/30/2006	0	-343	10.76	-	-	124000	-	-	-	-
5106-2	1/31/2006	4350	-119	9.41	-	-	15600	-	-	-	-
5106-2	1/31/2006	4330	-79	9.28	-	-	9300	-	-	-	-
5106-2	1/30/2006	0	-167	8.67	-	-	26400	-	-	-	-
5106-2	1/31/2006	370	-177	8.42	-	-	260 U	-	-	-	-
5106-2	1/30/2006	0	-210	8.11	-	-	7400	-	-	-	-
5106-2	1/30/2006	2450	-109	7.8	-	-	8000	-	-	-	-
5106-20	1/5/2006	0	-276	9.39	-	-	552000	-	-	-	-
5106-20	1/5/2006	0	-155	8.68	-	-	233000	-	-	-	-
5106-20	1/5/2006	0	-221	8.61	-	-	445000	-	-	-	-
5106-20	1/5/2006	0	-141	8.25	-	-	637000	-	-	-	-
5106-20	1/5/2006	3550	74	8.22	-	-	6380	-	-	-	-
5106-20	1/5/2006	190	-52	8.04	-	-	3410	-	-	-	-
5106-20	1/6/2006	1590	0	7.87	-	-	7520	-	-	-	-
5106-20	1/5/2006	310	-105	7.73	-	-	16500	-	-	-	-
5106-20	1/4/2006	550	-85	7.73	-	-	9640	-	-	-	-
5106-20	1/4/2006	330	-155	7.64	-	-	9630	-	-	-	-
5106-20	1/4/2006	1110	-13	7.55	-	-	28200	-	-	-	-
5106-20	1/5/2006	630	-98	7.38	-	-	50400	-	-	-	-
5106-20	1/5/2006	710	-72	7.37	-	-	12800	-	-	-	-
5106-20	1/5/2006	420	-92	7.28	-	-	26400	-	-	-	-
5106-20	1/5/2006	420	-92	7.28	-	-	20100	-	-	-	-
5106-20	1/5/2006	300	-71	7.25	-	-	112000	-	-	-	-
5106-21	1/10/2006	90	-10	8.42	-	-	839000	-	-	-	-
5106-21	1/10/2006	90	-10	8.42	-	-	889000	-	-	-	-
5106-21	1/10/2006	930	-47	8.07	-	-	13700	-	-	-	-
5106-21	1/10/2006	1420	-78	7.85	-	-	6080	-	-	-	-
5106-21	1/10/2006	90	-62	7.55	-	-	117000	-	-	-	-
5106-21	1/6/2006	220	-67	7.5	-	-	4560	-	-	-	-
5106-21	1/10/2006	60	-81	7.5	-	-	53300	-	-	-	-
5106-21	1/6/2006	170	-48	7.33	-	-	25300	-	-	-	-
5106-21	1/6/2006	610	11	7.3	-	-	11200	-	-	-	-
5106-21	1/10/2006	30	-116	7.25	-	-	94800	-	-	-	-
5106-21	1/9/2006	480	-91	7.22	-	-	25100	-	-	-	-
5106-21	1/10/2006	510	-36	7.21	-	-	50800	-	-	-	-
5106-21	1/9/2006	100	32	7.21	-	-	84400	-	-	-	-
5106-21	1/10/2006	350	45	7.19	-	-	184000	-	-	-	-
5106-21	1/9/2006	260	58	7.16	-	-	104000	-	-	-	-
5106-21	1/9/2006	330	13	7.15	-	-	34800	-	-	-	-
5106-23	2/10/2006	70	-170	7.5	-	-	25000	-	-	-	-
5106-23	2/10/2006	0	-165	7.38	-	-	26700	-	-	-	-
5106-23	2/10/2006	60	-156	7.28	-	-	15400	-	-	-	-
5106-24	2/9/2006	790	-134	7.68	-	-	405000	-	-	-	-
5106-24	2/9/2006	2660	-86	7.62	-	-	349000	-	-	-	-
5106-24	2/9/2006	2440	-137	7.53	-	-	95800	-	-	-	-
5106-24	2/9/2006	0	-180	7.46	-	-	491000	-	-	-	-
5106-24	2/9/2006	350	-153	7.43	-	-	11000	-	-	-	-
5106-24	2/9/2006	130	-169	7.41	-	-	15500	-	-	-	-
5106-24	2/9/2006	70	-168	7.38	-	-	32700	-	-	-	-
5106-24	2/9/2006	0	-163	7.35	-	-	92100	-	-	-	-
5106-24	2/9/2006	220	-157	7.27	-	-	10400	-	-	-	-
5106-24	2/8/2006	30	-152	7.23	-	-	11800	-	-	-	-
5106-24	2/9/2006	0	-170	7.16	-	-	23600	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
5106-24	2/8/2006	50	-148	7.15	-	-	15700	-	-	-	-
5106-24	2/9/2006	150	-149	7.08	-	-	21000	-	-	-	-
5106-25	4/18/2006	5770	-281	8.21	-	-	-	-	-	-	-
5106-25	4/18/2006	5770	-281	8.21	-	-	-	-	-	-	-
5106-25	4/27/2006	0	-268	8.13	-	-	17000	-	-	-	-
5106-25	4/18/2006	5300	-226	8.04	-	-	-	-	-	-	-
5106-25	4/17/2006	5430	-239	7.86	-	-	-	-	-	-	-
5106-25	4/14/2006	5580	-197	7.69	-	-	-	-	-	-	-
5106-25	4/17/2006	5810	-242	7.68	-	-	-	-	-	-	-
5106-25	4/14/2006	5360	-167	7.58	-	-	-	-	-	-	-
5106-26	2/15/2006	0	-213	8.35	-	-	260 U	-	-	-	-
5106-26	2/14/2006	0	-197	7.79	-	-	7400	-	-	-	-
5106-26	2/15/2006	3510	-98	7.73	-	-	2400	-	-	-	-
5106-26	2/15/2006	0	-181	7.66	-	-	260 U	-	-	-	-
5106-26	2/15/2006	9840	-70	7.62	-	-	23700	-	-	-	-
5106-26	2/14/2006	880	-145	7.6	-	-	260 U	-	-	-	-
5106-26	2/14/2006	230	-175	7.59	-	-	260 U	-	-	-	-
5106-26	2/14/2006	0	-204	7.4	-	-	260 U	-	-	-	-
5106-26	2/14/2006	0	-179	7.32	-	-	260 U	-	-	-	-
5106-26	2/14/2006	0	-179	7.32	-	-	260 U	-	-	-	-
5106-26	2/15/2006	490	-151	7.27	-	-	260 U	-	-	-	-
5106-27	4/11/2006	5680	-286	8.46	-	-	-	-	-	-	-
5106-27	4/11/2006	8500	-163	8.04	-	-	-	-	-	-	-
5106-27	4/11/2006	8500	-163	8.04	-	-	-	-	-	-	-
5106-27	4/11/2006	5710	-212	7.78	-	-	-	-	-	-	-
5106-27	4/11/2006	6520	-208	7.64	-	-	-	-	-	-	-
5106-3	9/20/2005	0	-389	12.31	-	-	799000	-	-	-	-
5106-3	9/20/2005	0	-383	11.87	-	-	646000	-	-	-	-
5106-3	9/19/2005	0	-284	10.48	-	-	103000	-	-	-	-
5106-3	9/19/2005	0	-229	10.47	-	-	91800	-	-	-	-
5106-3	9/19/2005	0	-221	9.93	-	-	87400	-	-	-	-
5106-3	9/19/2005	0	-296	9.83	-	-	119000	-	-	-	-
5106-3	9/19/2005	410	-129	9.66	-	-	36000	-	-	-	-
5106-5	9/9/2005	0	-409	11.65	-	-	956000	-	-	-	-
5106-5	9/9/2005	0	-284	10.43	-	-	28200 U	-	-	-	-
5106-5	9/9/2005	0	-325	10.36	-	-	153000	-	-	-	-
5106-5	9/9/2005	0	-290	10.19	-	-	109000	-	-	-	-
5106-5	9/9/2005	0	-237	9.77	-	-	65300	-	-	-	-
5106-5	9/9/2005	1970	-92	9.27	-	-	16500 U	-	-	-	-
5106-6	10/17/2005	270	-445	12.87	-	-	348000	-	-	-	-
5106-6	10/17/2005	250	-408	12.04	-	-	2690000	-	-	-	-
5106-9	11/1/2005	260	-370	11.59	-	-	126000	-	-	-	-
5106-9	11/1/2005	240	-418	11.45	-	-	3860000	-	-	-	-
5106-9	11/1/2005	220	-452	11.34	-	-	150000	-	-	-	-
5106-9	11/1/2005	280	-295	10.87	-	-	1130000	-	-	-	-
5106-9	11/1/2005	360	-459	10.85	-	-	327000	-	-	-	-
5106-9	11/1/2005	240	-431	9.86	-	-	292000	-	-	-	-
5106-9	11/1/2005	410	-143	8.71	-	-	51100	-	-	-	-
5106-9	11/1/2005	3880	-32	8.16	-	-	16400	-	-	-	-
5106-9	11/1/2005	490	-133	8.16	-	-	59000	-	-	-	-
5106-9	11/1/2005	490	-133	8.16	-	-	59400	-	-	-	-
5106-9	11/2/2005	840	-196	8.02	-	-	24100	-	-	-	-
5106-9	11/1/2005	520	-196	7.92	-	-	53800	-	-	-	-
5106-9	11/1/2005	540	-208	7.86	-	-	130 U	-	-	-	-
5106-9	11/1/2005	230	-205	7.51	-	-	77400	-	-	-	-
5106-9	11/1/2005	510	-202	7.45	-	-	27700	-	-	-	-
5106-9	11/1/2005	440	-194	7.43	-	-	36100	-	-	-	-
53-100	2/12/2004	-	-	10.81	-	-	-	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
53-100	8/19/2003	-	-	10.68	-	-	-	-	-	-	-
53-100	2/5/2003	-	-	10.65	-	-	-	-	-	-	-
53-100	8/7/2002	-	-	10.52	-	-	-	-	-	-	-
53-100	2/22/2001	-	-	10.5	-	-	-	-	-	-	-
53-100	5/20/1999	-	-	9.42	-	-	-	-	-	-	-
53-100	11/10/1998	-	-	9.24	-	-	-	-	-	-	-
53-100	2/8/1999	-	-	9.1	-	-	-	-	-	-	-
53-100	8/19/1998	-	-	8.54	-	-	-	-	-	-	-
53-100	5/21/1998	-	-	8.26	-	-	-	-	-	-	-
53-100	2/11/1998	-	-	8.25	-	-	-	-	-	-	-
53-100	2/19/1997	-	-	7.8	-	-	-	-	-	-	-
53-100	11/20/1997	-	-	7.59	-	-	-	-	-	-	-
53-100	5/27/1997	-	-	7.5	-	-	-	-	-	-	-
53-100	5/27/1997	-	-	7.5	-	-	-	-	-	-	-
53-100	8/25/1997	-	-	7.1	-	-	-	-	-	-	-
53-25	5/20/1997	-	-	8.6	-	-	-	-	-	-	-
53-25	2/22/2001	-	-	8.52	-	-	-	-	-	-	-
53-25	8/19/2003	-	-	7.91	-	-	-	-	-	-	-
53-25	2/12/2004	-	-	7.86	-	-	-	-	-	-	-
53-25	2/11/1998	-	-	7.79	-	-	-	-	-	-	-
53-25	2/5/2003	-	-	7.73	-	-	-	-	-	-	-
53-25	11/10/1998	-	-	7.71	-	-	-	-	-	-	-
53-25	2/13/1997	-	-	7.7	-	-	-	-	-	-	-
53-25	5/21/1998	-	-	7.7	-	-	-	-	-	-	-
53-25	8/8/2000	-	-	7.64	-	-	-	-	-	-	-
53-25	8/8/1998	-	-	7.62	-	-	-	-	-	-	-
53-25	8/7/2002	-	-	7.61	-	-	-	-	-	-	-
53-25	2/8/1999	-	-	7.32	-	-	-	-	-	-	-
53-25	11/20/1997	-	-	7.31	-	-	-	-	-	-	-
53-25	5/20/1999	-	-	7.27	-	-	-	-	-	-	-
53-25	5/1/2006	0	-171	7.2	154000	-	6500	-	80 U	-	215000
53-25	11/21/1996	-	-	7.1	-	-	-	-	-	-	-
53-25	8/26/1997	-	-	6.2	-	-	-	-	-	-	-
53-50	2/8/1999	-	-	8.39	-	-	-	-	-	-	-
53-50	2/12/2004	-	-	8.24	-	-	-	-	-	-	-
53-50	4/27/2006	30	-182	8.21	199000	-	10100	-	21200	-	173000
53-50	8/19/2003	-	-	8.11	-	-	-	-	-	-	-
53-50	11/9/2002	-	-	8.01	-	-	-	-	-	-	-
53-50	8/7/2002	-	-	7.98	-	-	-	-	-	-	-
53-50	2/5/2003	-	-	7.95	-	-	-	-	-	-	-
53-50	11/10/1998	-	-	7.91	-	-	-	-	-	-	-
53-50	2/22/2001	-	-	7.88	-	-	-	-	-	-	-
53-50	5/20/1997	-	-	7.7	-	-	-	-	-	-	-
53-50	8/8/2000	-	-	7.67	-	-	-	-	-	-	-
53-50	5/20/1999	-	-	7.6	-	-	-	-	-	-	-
53-50	2/11/1998	-	-	7.57	-	-	-	-	-	-	-
53-50	2/13/1997	-	-	7.5	-	-	-	-	-	-	-
53-50	8/8/1998	-	-	7.36	-	-	-	-	-	-	-
53-50	5/21/1998	-	-	7.28	-	-	-	-	-	-	-
53-50	11/20/1997	-	-	7.27	-	-	-	-	-	-	-
53-50	8/25/1997	-	-	6.7	-	-	-	-	-	-	-
53-50	11/15/1996	-	-	6.7	-	-	-	-	-	-	-
53C-100	7/24/2012	0	-282	8.56	-	448000	-	-	-	464000	-
53C-130	7/24/2012	0	-552	12.37	-	25600000	-	-	-	1460000	-
53C-25	7/24/2012	0	-209	9.37	-	388000	-	-	-	130000	-
53C-50	7/24/2012	0	-220	9.86	-	302000	-	-	-	170000	-
53C-75	7/24/2012	0	-240	9.41	-	447000	-	-	-	331000	-
55-50	8/19/1998	-	-	7.74	-	-	-	-	-	-	-

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
57-50	11/13/1998	-	-	7.93	-	-	-	-	-	-	-
57-50	11/11/2002	-	-	7.3	-	-	-	-	-	-	-
57-50	5/13/2003	-	-	7.19	-	-	-	-	-	-	-
59-25	5/6/2003	-	-	8.34	-	-	-	-	-	-	-
59-25	4/12/2006	0	-323	8.16	-	-	-	-	-	-	-
59-25	8/19/2003	-	-	8.14	-	-	-	-	-	-	-
59-50	4/12/2006	0	-516	10.78	-	-	-	-	-	-	-
59-50	5/6/2003	-	-	10.41	-	-	-	-	-	-	-
59-50	8/19/2003	-	-	10.4	-	-	-	-	-	-	-
60-25	5/6/2003	-	-	8.45	-	-	-	-	-	-	-
60-50	5/1/2006	300	-407	10.16	-	-	540000	-	-	-	-
60-50	5/6/2003	-	-	9.57	-	-	-	-	-	-	-
61-100	12/4/2008	0	-134	6.88	-	-	-	-	-	-	-
61-100	8/20/2003	-	-	6.79	-	-	-	-	-	-	-
61-100	11/14/2003	-	-	6.51	-	-	-	-	-	-	-
61C-100	7/17/2012	-	-	-	-	1310000	-	-	-	286000	-
61C-100	7/17/2012	2280	-156	7.39	-	1250000	-	-	-	297000	-
61C-130	7/17/2012	3630	-97	7.29	-	539000	-	-	-	806000	-
61C-160	7/17/2012	3250	-152	9.07	-	923000	-	-	-	986000	-
61C-75	7/17/2012	2070	-171	7.69	-	1770000	-	-	-	35000	-
62-50	8/18/2003	-	-	7.39	-	-	-	-	-	-	-
64-100	8/15/2003	-	-	6.8	-	-	-	-	-	-	-
64-100	11/15/2003	-	-	6.77	-	-	-	-	-	-	-
64-170	11/15/2003	-	-	7.27	-	-	-	-	-	-	-
64-170	8/15/2003	-	-	7.26	-	-	-	-	-	-	-
65-15	7/18/2004	-	-	9.37	-	-	-	-	-	-	-
65-25	7/18/2004	-	-	9.88	-	-	-	-	-	-	-
65-25	7/18/2004	-	-	9.88	-	-	-	-	-	-	-
65-50	8/12/2012	0	-496	11.78	-	7070000	-	-	-	144000	-
65-50	7/10/2004	-	-	11.05	-	-	-	-	-	-	-
709-MW1-15	10/1/1994	-	-	11.6	-	-	-	-	-	-	-
709-MW1-15	1/1/1994	-	-	11.6	-	-	-	-	-	-	-
709-MW1-15	1/12/1994	-	-	11.6	-	-	-	-	-	-	-
709-MW1-15	8/1/1995	-	-	11.2	-	-	-	-	-	-	-
709-MW1-15	3/9/2004	-	-	9.62	-	260000	-	-	-	-	-
709-MW14-15	8/1/1995	-	-	7.2	-	-	-	-	-	-	-
709-MW14-15	3/10/2004	-	-	6.74	-	385000	-	-	-	-	-
709-MW18-25	7/26/2012	-	-	9.25	-	329000	-	-	-	1110	-
709-MW19-15	8/1/1995	-	-	11	-	-	-	-	-	-	-
709-MW20-15	7/21/2004	-	-	7.54	-	-	-	-	-	-	-
709-MW20-15	8/21/2012	1300	87	7.52	-	250000	-	-	-	310000	-
709-MW2-15	10/1/1994	-	-	11.1	-	-	-	-	-	-	-
709-MW2-15	1/1/1994	-	-	11	-	-	-	-	-	-	-
709-MW2-15	1/12/1994	-	-	11	-	-	-	-	-	-	-
709-MW5-15	1/12/1994	-	-	8.3	-	-	-	-	-	-	-
709-MW5-15	10/1/1994	-	-	7.2	-	-	-	-	-	-	-
709-MW5-15	8/1/1995	-	-	7.1	-	-	-	-	-	-	-
709-MW7-15	8/1/1995	-	-	10.2	-	-	-	-	-	-	-
709-MW7-15	10/1/1994	-	-	10.2	-	-	-	-	-	-	-
709-MW8-15	10/1/1994	-	-	11.4	-	-	-	-	-	-	-
709-MW8-15	8/1/1995	-	-	11	-	-	-	-	-	-	-
721-GP5	6/23/2004	-	-	9.28	-	-	-	-	-	-	-
721-GP5	6/23/2004	-	-	8.05	-	-	-	-	-	-	-
721-GP6	6/28/2004	-	-	10.01	-	-	-	-	-	-	-
721-GP6	6/28/2004	-	-	7.95	-	-	-	-	-	-	-
721-GP8	6/24/2004	-	-	9.83	-	-	-	-	-	-	-
721-MW5-15	7/19/2004	-	-	8.07	-	-	-	-	-	-	-
721-MW7-15	7/19/2004	-	-	8.82	-	-	-	-	-	-	-

TABLE 4.1

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
72-50	7/12/2004	-	-	7.36	-	-	-	-	-	-	-
73-25	4/21/2006	0	-218	7.32	-	-	4100	-	-	-	-
74-100	8/22/2006	340	-238	7.15	-	-	-	-	-	-	-
74-130	8/23/2006	0	-237	7.05	-	-	-	-	-	-	-
74-75	8/17/2006	2400	-318	8.8	-	-	-	-	-	-	-
77-140	4/25/2006	240	-170	6.98	-	-	3800	-	-	-	-
77C-100	7/16/2012	7000	-127	7.94	-	743000	-	-	-	580000	-
77C-130	7/16/2012	4510	-99	7.23	-	548000	-	-	-	4400000	-
77C-160	7/16/2012	-	-	-	-	549000	-	-	-	573000	-
77C-160	7/16/2012	0	-142	7.11	-	538000	-	-	-	589000	-
77C-50	7/16/2012	70	-201	7.33	-	1350000	-	-	-	570000	-
77C-75	7/16/2012	4780	-121	8.1	-	1650000	-	-	-	263000	-
78-25	4/25/2006	0	-150	7.35	-	-	32000	-	-	-	-
78C-100	7/19/2012	2670	-115	7.95	-	609000	-	-	-	634000	-
78C-75	7/19/2012	0	-175	8.06	-	857000	-	-	-	121000	-
83C-100	7/25/2012	0	-316	11.12	-	3260000	-	-	-	4500000	-
83C-130	7/25/2012	0	-523	12.1	-	68000000	-	-	-	2900000	-
83C-160	7/25/2012	0	-337	10.54	-	10700000	-	-	-	666000	-
83C-25	7/25/2012	0	-111	7.44	-	158000	-	-	-	1370000	-
83C-50	7/25/2012	0	-304	8.43	-	169000	-	-	-	1570000	-
83C-75	7/25/2012	0	-379	9.62	-	288000	-	-	-	1580000	-
89C-25	8/22/2012	1390	-319	8.24	-	237000	-	-	-	37400	-
90C-100	7/23/2012	0	-523	11.8	-	16000000	-	-	-	1380000	-
90C-25	7/23/2012	540	-177	9.1	-	211000	-	-	-	351000	-
90C-50	7/23/2012	-	-	-	-	274000	-	-	-	539000	-
90C-50	7/23/2012	0	-279	9.85	-	275000	-	-	-	547000	-
90C-75	7/23/2012	0	-388	11.15	-	660000	-	-	-	285000	-
90C-75	9/25/2013	170	-357	9.41	-	918000	-	-	-	323000	-
94C-100	7/24/2012	0	-244	9.21	-	597000	-	-	-	1070000	-
94C-100	9/24/2013	1390	-160	7.44	-	799000	-	-	-	895000	-
94C-130	7/24/2012	0	-505	12.1	-	32400000	-	-	-	3280000	-
94C-130	9/24/2013	450	-249	10.53	-	32500000	-	-	-	3020000	-
94C-160	7/24/2012	60	-254	8.85	-	515000	-	-	-	489000	-
94C-50	7/24/2012	210	-213	8.22	-	262000	-	-	-	1670000	-
94C-75	7/24/2012	0	-240	8.6	-	215000	-	-	-	1720000	-
94C-75	9/24/2013	1200	-188	7.46	-	187000	-	-	-	2240000	-
A-2A	5/23/2006	4340	38	7.85	-	-	11000 U	-	-	-	-
A-2A	8/2/2002	-	-	6.99	-	-	-	-	-	-	-
A-3	5/23/2006	5790	30	7.45	-	-	7900 U	-	-	-	-
A-3	5/11/2003	-	-	6.88	-	-	-	-	-	-	-
A-4	5/23/2006	3680	27	7.47	-	-	5300	-	-	-	-
A-5	9/25/1996	-	-	8.9	-	-	-	-	-	-	-
A-5	7/19/1996	-	-	7.8	-	-	-	-	-	-	-
A-5	11/3/1997	-	-	7.61	-	-	-	-	-	-	-
A-5	5/21/1996	-	-	7.5	-	-	-	-	-	-	-
A-5	5/21/1996	-	-	7.5	-	-	-	-	-	-	-
A-5	8/2/2002	-	-	7.44	-	-	-	-	-	-	-
A-5	5/23/2006	4670	45	7.43	-	-	14000 U	-	-	-	-
A-5	6/19/1996	-	-	7.4	-	-	-	-	-	-	-
A-5	8/17/1998	-	-	7.3	-	-	-	-	-	-	-
A-5	2/2/2000	-	-	7.24	-	-	-	-	-	-	-
A-5	8/19/1996	-	-	7.2	-	-	-	-	-	-	-
A-5	8/19/1996	-	-	7.2	-	-	-	-	-	-	-
A-5	8/13/1997	-	-	7.2	-	-	-	-	-	-	-
A-5	5/8/1998	-	-	6.72	-	-	-	-	-	-	-
A-5	2/10/1997	-	-	6.7	-	-	-	-	-	-	-
A-5	2/2/1998	-	-	6.56	-	-	-	-	-	-	-
A-5	2/22/1996	-	-	6.5	-	-	-	-	-	-	-

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
A-5	11/12/1996	-	-	6	-	-	-	-	-	-	-
A-6	5/23/2006	4280	5	7.78	-	-	7300 U	-	-	-	-
B-1	5/23/2006	3890	-116	7.53	-	-	8800 U	-	-	-	-
B-3	9/25/1996	-	-	8.6	-	-	-	-	-	-	-
B-3	5/21/1996	-	-	8.1	-	-	-	-	-	-	-
B-3	7/19/1996	-	-	8	-	-	-	-	-	-	-
B-3	6/19/1996	-	-	8	-	-	-	-	-	-	-
B-3	8/19/1996	-	-	8	-	-	-	-	-	-	-
B-3	8/2/2002	-	-	7.82	-	-	-	-	-	-	-
B-3	8/13/1997	-	-	7.7	-	-	-	-	-	-	-
B-3	8/13/1998	-	-	7.67	-	-	-	-	-	-	-
B-3	11/3/1997	-	-	7.61	-	-	-	-	-	-	-
B-3	5/23/2006	2820	-155	7.51	-	-	15000 U	-	-	-	-
B-3	2/2/2000	-	-	7.47	-	-	-	-	-	-	-
B-3	2/22/1996	-	-	7	-	-	-	-	-	-	-
B-3	2/10/1997	-	-	7	-	-	-	-	-	-	-
B-3	5/16/1997	-	-	6.9	-	-	-	-	-	-	-
B-3	5/6/1998	-	-	6.84	-	-	-	-	-	-	-
B-3	2/2/1998	-	-	6.74	-	-	-	-	-	-	-
B-3	2/2/1998	-	-	6.74	-	-	-	-	-	-	-
B-3	11/13/1996	-	-	6.2	-	-	-	-	-	-	-
B-4	5/23/2006	1880	-165	7.22	-	-	14000 U	-	-	-	-
B-4	5/23/2006	1880	-165	7.22	-	-	14000 U	-	-	-	-
BH-71	8/10/2006	0	-211	7.31	-	-	-	-	-	-	-
BH-71	8/10/2006	0	-211	7.31	-	-	-	-	-	-	-
BH-72	8/9/2006	0	-345	8.34	-	-	-	-	-	-	-
C-1	5/24/2006	2940	-163	7.41	-	-	15000	-	-	-	-
C-2	5/24/2006	3700	-140	7.66	-	-	11000	-	-	-	-
C-3	9/25/1996	-	-	8.6	-	-	-	-	-	-	-
C-3	8/15/1997	-	-	7.9	-	-	-	-	-	-	-
C-3	8/15/1997	-	-	7.9	-	-	-	-	-	-	-
C-3	8/2/2002	-	-	7.84	-	-	-	-	-	-	-
C-3	8/16/1996	-	-	7.7	-	-	-	-	-	-	-
C-3	7/19/1996	-	-	7.7	-	-	-	-	-	-	-
C-3	6/19/1996	-	-	7.7	-	-	-	-	-	-	-
C-3	6/19/1996	-	-	7.7	-	-	-	-	-	-	-
C-3	8/13/1998	-	-	7.63	-	-	-	-	-	-	-
C-3	5/23/2006	3850	17	7.62	-	-	15000	-	-	-	-
C-3	5/21/1996	-	-	7.6	-	-	-	-	-	-	-
C-3	2/25/2001	-	-	7.5	-	-	-	-	-	-	-
C-3	8/11/2000	-	-	7.38	-	-	-	-	-	-	-
C-3	5/20/1997	-	-	7.2	-	-	-	-	-	-	-
C-3	2/3/2000	-	-	7.17	-	-	-	-	-	-	-
C-3	2/7/1997	-	-	6.9	-	-	-	-	-	-	-
C-3	2/2/1998	-	-	6.86	-	-	-	-	-	-	-
C-3	11/25/1997	-	-	6.64	-	-	-	-	-	-	-
C-3	5/14/1998	-	-	6.55	-	-	-	-	-	-	-
C-3	11/13/1996	-	-	6.2	-	-	-	-	-	-	-
C-4	5/23/2006	3590	-7	8.24	-	-	2100 U	-	-	-	-
C-7	8/13/1998	-	-	7.85	-	-	-	-	-	-	-
C-7	8/11/2000	-	-	7.44	-	-	-	-	-	-	-
D-2	5/24/2006	3480	-145	7.43	-	-	13000	-	-	-	-
D-3	5/24/2006	3500	-27	7.48	-	-	5100	-	-	-	-
D-4	5/26/2006	90	-242	12.02	-	-	25000	-	-	-	-
D-4	9/25/1996	-	-	7.8	-	-	-	-	-	-	-
D-4	7/19/1996	-	-	7.7	-	-	-	-	-	-	-
D-4	8/14/1997	-	-	7.6	-	-	-	-	-	-	-
D-4	8/14/1997	-	-	7.6	-	-	-	-	-	-	-



**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
D-4	8/8/2002	-	-	7.45	-	-	-	-	-	-	-
D-4	6/19/1996	-	-	7.3	-	-	-	-	-	-	-
D-4	8/13/1996	-	-	7.3	-	-	-	-	-	-	-
D-4	5/21/1996	-	-	7.1	-	-	-	-	-	-	-
D-4	8/13/1998	-	-	7.06	-	-	-	-	-	-	-
D-4	5/7/1998	-	-	6.81	-	-	-	-	-	-	-
D-4	2/26/2001	-	-	6.68	-	-	-	-	-	-	-
D-4	8/11/2000	-	-	6.67	-	-	-	-	-	-	-
D-4	2/22/1996	-	-	6.5	-	-	-	-	-	-	-
D-4	2/4/1997	-	-	6.4	-	-	-	-	-	-	-
D-4	2/4/1997	-	-	6.4	-	-	-	-	-	-	-
D-4	2/2/1998	-	-	6.03	-	-	-	-	-	-	-
D-4	11/14/1996	-	-	5.7	-	-	-	-	-	-	-
D-4	11/14/1996	-	-	5.7	-	-	-	-	-	-	-
D-4	5/9/1997	-	-	4.9	-	-	-	-	-	-	-
D-5	5/23/2006	3430	-37	7.49	-	-	9400 U	-	-	-	-
D-5	8/2/2002	-	-	7.06	-	-	-	-	-	-	-
Dock2-1	7/20/2005	1140	-383	10.01	-	-	699000	-	-	-	-
Dock2-1	7/20/2005	1250	-309	8.91	-	-	1110000	-	-	-	-
Dock2-1	7/21/2005	1690	-166	7.37	-	-	19600	-	-	-	-
Dock2-1	7/21/2005	1510	-153	7.23	-	-	35800	-	-	-	-
Dock2-11	10/20/2005	1260	-182	7.57	-	-	22600	-	-	-	-
Dock2-8	8/22/2005	2540	-183	9.31	-	-	135000	-	-	-	-
Dock2-9	9/8/2005	3760	-348	11.17	-	-	1050000	-	-	-	-
Dock2-9	9/8/2005	3710	-320	10.82	-	-	138000	-	-	-	-
Dock2-9	9/8/2005	3750	-98	8.38	-	-	6610 U	-	-	-	-
EA-1	9/28/2005	1980	-594	13.15	-	-	207000	-	-	-	-
EA-1	9/28/2005	2050	-543	12.41	-	-	155000	-	-	-	-
EA-1	10/3/2005	1800	-532	12.05	-	-	502000	-	-	-	-
EA-1	10/3/2005	1460	-526	12.04	-	-	504000	-	-	-	-
EA-1	9/28/2005	2100	-531	11.74	-	-	441000	-	-	-	-
EA-1	10/4/2005	1390	-541	11.32	-	-	2560000	-	-	-	-
EA-1	9/28/2005	1490	-489	11.12	-	-	1010000	-	-	-	-
EA-1	9/23/2005	1570	-337	10.94	-	-	27500	-	-	-	-
EA-1	9/27/2005	1980	-450	10.93	-	-	280000	-	-	-	-
EA-1	9/22/2005	1280	-329	10.56	-	-	28800	-	-	-	-
EA-1	9/23/2005	1340	-359	10.45	-	-	41100	-	-	-	-
EA-1	9/26/2005	2100	-414	9.86	-	-	-	-	-	-	-
EA-1	9/23/2005	2240	-297	9.69	-	-	5950	-	-	-	-
EA-1	9/22/2005	1920	-292	9.56	-	-	8560	-	-	-	-
EA-1	9/27/2005	2040	-444	9.39	-	-	656000	-	-	-	-
EA-1	9/27/2005	1870	-381	9.18	-	-	55800	-	-	-	-
EA-1	9/22/2005	2840	-272	8.31	-	-	4530	-	-	-	-
EA-1	9/23/2005	1960	-298	8.24	-	-	41600	-	-	-	-
EA-1	9/27/2005	2440	-247	8	-	-	72300	-	-	-	-
EA-2	10/10/2005	1820	-407	11.93	-	-	34100	-	-	-	-
EA-2	10/13/2005	2330	-522	11.56	-	-	288000 U	-	-	-	-
EA-2	10/19/2005	50	-554	11.42	-	-	1630000	-	-	-	-
EA-2	10/12/2005	1890	-527	11.39	-	-	471000	-	-	-	-
EA-2	10/12/2005	2130	-514	11.18	-	-	300000	-	-	-	-
EA-2	10/12/2005	1980	-490	11.02	-	-	438000	-	-	-	-
EA-2	10/12/2005	1990	-525	11.02	-	-	437000	-	-	-	-
EA-2	10/11/2005	3060	-451	11.01	-	-	92600	-	-	-	-
EA-2	10/11/2005	2650	-419	10.89	-	-	25800	-	-	-	-
EA-2	10/11/2005	2520	-434	10.75	-	-	39900	-	-	-	-
EA-2	10/13/2005	2040	-463	10.53	-	-	660000	-	-	-	-
EA-2	10/10/2005	2710	-343	8.46	-	-	4220	-	-	-	-
EA-2	10/11/2005	2690	-332	8.38	-	-	3360	-	-	-	-

TABLE 4.1

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
EA-2	10/10/2005	2390	-357	8.32	-	-	23200	-	-	-	-
EA-2	10/11/2005	2640	-334	7.95	-	-	8370	-	-	-	-
EA-3	10/26/2005	390	-488	11.51	-	-	247000	-	-	-	-
ESI-1-1	11/11/2002	-	-	11.3	-	1690000	-	-	-	746000	-
ESI-1-1	11/12/2002	-	-	10.4	-	1780000	-	-	-	539000	-
ESI-1-4	11/12/2002	-	-	-	-	2300000	-	-	-	545000	-
ESI-1-4	11/12/2002	-	20.4	11.5	-	2520000	-	-	-	767000	-
ESI-1-4	11/12/2002	-	13.2	10.8	-	2430000	-	-	-	541000	-
GP-5	4/7/2004	0	-156	6.75	-	-	-	-	-	-	-
HYD-1	9/1/2005	2000	-310	10.93	-	-	438000	-	-	-	-
HYD-1	9/1/2005	2320	-228	10.23	-	-	3880000	-	-	-	-
HYD-1	9/1/2005	3600	-35	9.34	-	-	21900	-	-	-	-
HYD-1	9/1/2005	3900	84	8.48	-	-	15300	-	-	-	-
HYD-1	9/1/2005	3620	-124	8.2	-	-	10700	-	-	-	-
HYD-1	8/31/2005	3530	-120	7.96	-	-	5700	-	-	-	-
HYD-1	9/1/2005	3520	-109	7.8	-	-	2370 U	-	-	-	-
HYD-1	9/1/2005	2000	-106	7.59	-	-	303000	-	-	-	-
HYD-1	9/1/2005	4100	31	7.27	-	-	3020 U	-	-	-	-
HYD-1	9/1/2005	2810	-117	7.06	-	-	9030	-	-	-	-
HYD-2	8/30/2005	1920	-359	11.87	-	-	560000	-	-	-	-
HYD-2	8/30/2005	1930	-256	10.02	-	-	1300000	-	-	-	-
HYD-2	8/30/2005	1530	-25	8.78	-	-	627000	-	-	-	-
HYD-2	8/30/2005	3610	79	8.57	-	-	2930	-	-	-	-
HYD-2	8/30/2005	3700	-83	8.01	-	-	14500	-	-	-	-
HYD-2	8/30/2005	3750	-49	7.91	-	-	111000	-	-	-	-
HYD-2	8/29/2005	4050	-69	7.72	-	-	6040	-	-	-	-
HYD-3	8/16/2005	0	-362	12.19	-	-	1220000	-	-	-	-
HYD-3	8/17/2005	0	-273	10.13	-	-	1050000	-	-	-	-
HYD-3	8/17/2005	60	-256	7.53	-	-	77600	-	-	-	-
HYD-3	8/15/2005	380	-157	7.27	-	-	11600	-	-	-	-
HYD-3	8/15/2005	390	-122	6.8	-	-	11700	-	-	-	-
HYD-3	8/15/2005	90	-136	6.6	-	-	52900	-	-	-	-
HYD-4	9/23/2005	300	-424	13.23	-	-	373000	-	-	-	-
HYD-4	9/23/2005	340	-445	13.18	-	-	460000	-	-	-	-
HYD-4	9/22/2005	300	-410	12.89	-	-	572000	-	-	-	-
HYD-4	9/22/2005	290	-310	11.18	-	-	90100	-	-	-	-
HYD-4	9/24/2005	340	-196	7.79	-	-	-	-	-	-	-
HYD-5	10/4/2005	440	-154	9.88	-	-	16100	-	-	-	-
HYD-6	9/30/2005	300	-323	10.21	-	-	-	-	-	-	-
HYD-6	9/30/2005	8830	-29	8.63	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/16/2013	1490	-319	12.57	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/16/2013	4270	39	11.68	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/17/2013	4020	111	8.71	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/17/2013	2840	7	8.7	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/17/2013	1780	75	8.21	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/15/2013	660	-147	7.36	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/15/2013	470	-136	7.32	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/12/2013	1520	-43	7.26	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/15/2013	15900	-158	7.14	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/12/2013	2310	-43	7.13	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/18/2013	2110	34	6.55	-	-	-	-	-	-	-
MW-EXT-9-DEEP	7/18/2013	2110	34	6.55	-	-	-	-	-	-	-
MW-EXT-9-INT	9/27/2013	0	-470	12.07	-	74400000	-	-	-	5900000	-
MW-EXT-9-SHALLOW	9/27/2013	0	-165	7.34	-	362000	-	-	-	731000	-
MW-F-DEEP	7/3/2013	1010	-148	7.23	-	-	-	-	-	-	-
MW-F-DEEP	9/26/2013	280	-80	7.18	-	247000	-	-	-	782000	-
MW-F-DEEP	7/3/2013	1180	-149	7.09	-	-	-	-	-	-	-
MW-F-DEEP	7/8/2013	2260	-141	6.41	-	-	-	-	-	-	-

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
MW-F-DEEP	7/8/2013	3970	83	5.77	-	-	-	-	-	-	-
MW-F-INT	9/26/2013	850	-111	6.77	-	809000	-	-	-	271000	-
MW-G-DEEP	7/31/2013	9820	-43	8.61	-	-	-	-	-	-	-
MW-G-DEEP	7/29/2013	14720	102	8.54	-	-	-	-	-	-	-
MW-G-DEEP	7/25/2013	410	-128	7.52	-	-	-	-	-	-	-
MW-G-DEEP	7/25/2013	410	-128	7.52	-	-	-	-	-	-	-
MW-G-DEEP	7/29/2013	930	81	7.52	-	-	-	-	-	-	-
MW-G-DEEP	7/30/2013	9750	-84	6.99	-	-	-	-	-	-	-
MW-G-DEEP	7/30/2013	12310	-51	6.94	-	-	-	-	-	-	-
MW-G-DEEP	7/30/2013	10660	-135	6.79	-	-	-	-	-	-	-
MW-G-DEEP	7/26/2013	420	-57	6.34	-	-	-	-	-	-	-
MW-G-INT	9/26/2013	-	-	-	-	428000	-	-	-	315000	-
MW-G-INT	9/26/2013	1460	14	7.2	-	428000	-	-	-	315000	-
MW-G-SHALLOW	9/25/2013	980	-70	6.22	-	587000	-	-	-	549000	-
MW-H-01	6/25/2013	5430	-271	12	-	-	-	-	-	-	-
MW-H-01	6/25/2013	4480	-72	11.32	-	-	-	-	-	-	-
MW-H-01	9/27/2013	210	-17	10.2	-	38800	-	-	-	200 U	-
MW-H-01	6/27/2013	1460	2	9.41	-	-	-	-	-	-	-
MW-H-01	6/26/2013	1100	16	9.37	-	-	-	-	-	-	-
MW-H-01	6/24/2013	2100	-276	8.17	-	-	-	-	-	-	-
MW-H-01	6/21/2013	1710	-141	7.68	-	-	-	-	-	-	-
MW-H-01	6/20/2013	840	-161	7.49	-	-	-	-	-	-	-
MW-H-01	6/21/2013	730	-122	7.26	-	-	-	-	-	-	-
NL-17	3/30/2006	8290	-243	11.54	-	-	-	-	-	-	-
NL-17	3/31/2006	420	-292	10.91	-	-	-	-	-	-	-
NL-17	3/31/2006	900	-256	10.69	-	-	-	-	-	-	-
NL-23	8/11/2006	0	-286	9.69	-	-	-	-	-	-	-
NL-23	8/11/2006	0	-226	9.21	-	-	-	-	-	-	-
P-1	9/22/1989	-	-	-	-	233000	-	-	-	12900	-
Pier25-10	10/27/2005	700	-206	8.01	-	-	520 U	-	-	-	-
Pier25-10	10/27/2005	580	-204	7.82	-	-	11900	-	-	-	-
Pier25-10	10/27/2005	1150	-183	7.53	-	-	9900	-	-	-	-
Pier25-10	10/27/2005	700	-168	6.89	-	-	37200	-	-	-	-
Pier25-10	10/27/2005	920	-139	6.84	-	-	24400	-	-	-	-
Pier25-10	10/27/2005	630	-181	6.73	-	-	25900	-	-	-	-
Pier25-11	10/6/2005	660	-121	8.44	-	-	14200	-	-	-	-
Pier25-11	10/6/2005	550	-125	7.68	-	-	8020	-	-	-	-
Pier25-11	10/6/2005	550	-125	7.68	-	-	9670	-	-	-	-
Pier25-12	2/1/2006	0	-436	11.44	-	-	992000	-	-	-	-
Pier25-12	2/1/2006	0	-341	10.54	-	-	459000	-	-	-	-
Pier25-12	2/1/2006	0	-305	10.05	-	-	405000	-	-	-	-
Pier25-12	2/1/2006	480	-138	7.16	-	-	5140	-	-	-	-
Pier25-12	2/1/2006	330	-157	7.06	-	-	72400	-	-	-	-
Pier25-12	2/1/2006	220	-148	6.86	-	-	16800	-	-	-	-
Pier25-13	2/2/2006	0	-447	11.44	-	-	657000	-	-	-	-
Pier25-13	2/3/2006	0	-454	10.98	-	-	1090000	-	-	-	-
Pier25-13	2/2/2006	0	-393	10.88	-	-	321000	-	-	-	-
Pier25-13	2/3/2006	0	-440	9.26	-	-	1700000	-	-	-	-
Pier25-13	2/3/2006	1360	-64	8.74	-	-	11700	-	-	-	-
Pier25-13	2/3/2006	990	-186	8.59	-	-	9400	-	-	-	-
Pier25-13	2/2/2006	3740	-1	8.55	-	-	94100	-	-	-	-
Pier25-13	2/2/2006	1220	-131	7.51	-	-	5900	-	-	-	-
Pier25-13	2/2/2006	0	-140	7.21	-	-	6400	-	-	-	-
Pier25-13	2/2/2006	1990	-103	7.02	-	-	18600	-	-	-	-
Pier25-13	2/2/2006	1990	-103	7.02	-	-	18600	-	-	-	-
Pier25-15	11/30/2005	1070	-63	7.89	-	-	55100	-	-	-	-
Pier25-15	12/22/2005	1030	-188	7.1	-	-	13500	-	-	-	-
Pier25-15	11/30/2005	1020	-122	7.03	-	-	91800	-	-	-	-

**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
Pier25-16	11/22/2005	1620	73	8.43	-	-	72200	-	-	-	-
Pier25-16	11/22/2005	1190	35	8.16	-	-	5080 U	-	-	-	-
Pier25-16	11/22/2005	3570	38	8.09	-	-	2810 U	-	-	-	-
Pier25-16	11/22/2005	440	-92	7.97	-	-	2740 U	-	-	-	-
Pier25-17	11/17/2005	700	-389	11.36	-	-	7480000	-	-	-	-
Pier25-17	11/17/2005	410	-256	9.52	-	-	449000	-	-	-	-
Pier25-17	11/17/2005	440	-40	8.26	-	-	144000	-	-	-	-
Pier25-17	11/17/2005	1300	-9	7.5	-	-	88700	-	-	-	-
Pier25-17	11/17/2005	1470	47	7.19	-	-	48700	-	-	-	-
Pier25-17	12/12/2005	460	-179	7.16	-	-	10800	-	-	-	-
Pier25-18	12/9/2005	140	-434	11.73	-	-	749000	-	-	-	-
Pier25-18	12/9/2005	170	-439	11.59	-	-	1520000	-	-	-	-
Pier25-18	12/9/2005	1570	-114	8.88	-	-	130 U	-	-	-	-
Pier25-18	12/9/2005	350	-351	8.34	-	-	716000	-	-	-	-
Pier25-18	12/9/2005	480	-141	8.01	-	-	130 U	-	-	-	-
Pier25-18	12/9/2005	500	-172	7.69	-	-	130 U	-	-	-	-
Pier25-18	12/8/2005	1440	-138	7.65	-	-	130 U	-	-	-	-
Pier25-18	12/8/2005	1440	-138	7.65	-	-	130 U	-	-	-	-
Pier25-18	12/8/2005	1020	-156	7.19	-	-	130 U	-	-	-	-
Pier25-18	12/9/2005	1120	-144	7.01	-	-	130 U	-	-	-	-
Pier25-19	12/7/2005	300	-299	8.58	-	-	832000	-	-	-	-
Pier25-19	12/7/2005	660	-236	8.28	-	-	24900	-	-	-	-
Pier25-19	12/7/2005	1880	-153	7.87	-	-	5940 U	-	-	-	-
Pier25-19	12/7/2005	1440	-168	7.85	-	-	4130 U	-	-	-	-
Pier25-19	12/7/2005	680	-199	7.63	-	-	25200	-	-	-	-
Pier25-19	12/7/2005	2250	-106	7.55	-	-	9980 U	-	-	-	-
Pier25-19	12/8/2005	850	-165	7.51	-	-	1310 U	-	-	-	-
Pier25-19	12/7/2005	920	-153	7.23	-	-	64400	-	-	-	-
Pier25-2	7/15/2005	3060	-229	7.75	-	-	4960	-	-	-	-
Pier25-2	7/19/2005	1800	-231	7.39	-	-	20400	-	-	-	-
Pier25-2	7/18/2005	1960	-216	7.3	-	-	25900	-	-	-	-
Pier25-2	7/18/2005	1330	-185	6.57	-	-	86200	-	-	-	-
Pier25-20	12/6/2005	250	-83	7.9	-	-	4800	-	-	-	-
Pier25-20	12/6/2005	570	-114	7.73	-	-	130 U	-	-	-	-
Pier25-20	12/6/2005	970	-20	7.52	-	-	11300	-	-	-	-
Pier25-20	12/6/2005	940	-27	7.37	-	-	21000	-	-	-	-
Pier25-20	12/6/2005	1010	-80	6.99	-	-	14200	-	-	-	-
Pier25-20	12/6/2005	780	-94	6.9	-	-	16600	-	-	-	-
Pier25-22	1/18/2006	3590	59	7.71	-	-	570	-	-	-	-
Pier25-22	1/18/2006	600	2	7.07	-	-	8300	-	-	-	-
Pier25-22	1/18/2006	600	2	7.07	-	-	8100	-	-	-	-
Pier25-22	1/18/2006	560	32	6.99	-	-	12600	-	-	-	-
Pier25-23	1/11/2006	840	-109	7.71	-	-	130 U	-	-	-	-
Pier25-23	1/11/2006	370	-64	7.65	-	-	8000	-	-	-	-
Pier25-23	1/11/2006	370	-64	7.65	-	-	8000	-	-	-	-
Pier25-23	1/11/2006	820	18	7.64	-	-	12400	-	-	-	-
Pier25-23	1/11/2006	860	-20	7.36	-	-	130 U	-	-	-	-
Pier25-23	1/11/2006	570	-49	7.06	-	-	7400	-	-	-	-
Pier25-23	1/11/2006	330	-81	6.92	-	-	14000	-	-	-	-
Pier25-23	1/11/2006	330	-110	6.87	-	-	12700	-	-	-	-
Pier25-24	1/13/2006	0	-150	8.31	-	-	122000	-	-	-	-
Pier25-24	1/13/2006	3170	18	7.96	-	-	1300	-	-	-	-
Pier25-24	1/12/2006	340	-9	7.21	-	-	15500	-	-	-	-
Pier25-24	1/12/2006	770	42	7.2	-	-	9900	-	-	-	-
Pier25-24	1/12/2006	770	42	7.2	-	-	9900	-	-	-	-
Pier25-24	1/13/2006	810	14	7.17	-	-	22500	-	-	-	-
Pier25-25	1/20/2006	-	-309	9.89	-	-	1160000 U	-	-	-	-
Pier25-25	1/20/2006	-	-191	8.65	-	-	7200 U	-	-	-	-

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Pier25-25	1/20/2006	-	-322	8.36	-	-	882000 U	-	-	-	-
Pier25-25	1/20/2006	-	-189	7.83	-	-	42100 U	-	-	-	-
Pier25-25	1/20/2006	-	-184	7.81	-	-	15900	-	-	-	-
Pier25-25	1/20/2006	-	156	7.39	-	-	146000 U	-	-	-	-
Pier25-26	1/24/2006	0	-176	7.55	-	-	151000	-	-	-	-
Pier25-26	1/24/2006	1600	-92	7.52	-	-	-	-	-	-	-
Pier25-26	1/23/2006	0	-171	7.44	-	-	46700	-	-	-	-
Pier25-26	1/23/2006	0	-173	7.41	-	-	10800	-	-	-	-
Pier25-26	1/24/2006	0	-172	7.3	-	-	22100	-	-	-	-
Pier25-27	1/19/2006	170	-2	8.42	-	-	2270	-	-	-	-
Pier25-27	1/19/2006	1950	86	8.04	-	-	72400	-	-	-	-
Pier25-27	1/19/2006	1250	-21	7.48	-	-	25000	-	-	-	-
Pier25-27	1/19/2006	600	-75	7.37	-	-	18700	-	-	-	-
Pier25-28	1/24/2006	0	-160	7.72	-	-	18600	-	-	-	-
Pier25-28	1/24/2006	0	-168	7.16	-	-	16500	-	-	-	-
Pier25-28	1/24/2006	0	-120	7	-	-	17400	-	-	-	-
Pier25-3	8/16/2005	3830	-21	7.95	-	-	5360 U	-	-	-	-
Pier25-30	1/27/2006	1360	-138	7.77	-	-	28900	-	-	-	-
Pier25-30	1/27/2006	0	-169	7.53	-	-	13400	-	-	-	-
Pier25-30	1/27/2006	0	-151	7.47	-	-	22200	-	-	-	-
Pier25-30	1/27/2006	0	-181	7.35	-	-	18900	-	-	-	-
Pier25-6	8/18/2005	4340	-113	7.92	-	-	5740	-	-	-	-
Pier25-6	8/18/2005	3710	-127	7.9	-	-	5640	-	-	-	-
Pier25-6	8/18/2005	3020	-116	6.95	-	-	16600	-	-	-	-
Pier25-6	8/18/2005	2350	-126	6.74	-	-	52600	-	-	-	-
Pier25-6	8/18/2005	1940	-139	6.65	-	-	35300	-	-	-	-
Pier25-7	8/24/2005	4240	-75	7.34	-	-	9430	-	-	-	-
Pier25-8	8/26/2005	5270	91	7.52	-	-	22800	-	-	-	-
Pier25-8	8/26/2005	3660	-70	7.43	-	-	10300	-	-	-	-
Pier25-8	8/26/2005	3800	-79	7.24	-	-	13500	-	-	-	-
PT-12A	10/24/2005	110	-527	11.77	-	-	1180000	-	-	-	-
PT-12A	10/24/2005	280	-547	11.73	-	-	1780000	-	-	-	-
PT-12A	10/24/2005	40	-472	11.39	-	-	97500	-	-	-	-
PT-12A	10/24/2005	40	-472	11.39	-	-	184000	-	-	-	-
PT-13A	11/9/2005	500	-485	11.76	-	-	1310000	-	-	-	-
PT-13A	11/9/2005	690	-438	11.76	-	-	666000	-	-	-	-
PT-13A	11/10/2005	890	-490	11.7	-	-	1540000	-	-	-	-
PT-13A	11/9/2005	760	-321	11.01	-	-	107000	-	-	-	-
PT-13A	11/9/2005	400	-246	9.43	-	-	19500	-	-	-	-
PT-13A	11/10/2005	690	-371	9.37	-	-	-	-	-	-	-
PT-13A	11/10/2005	1470	26	8.84	-	-	4990	-	-	-	-
PT-13A	11/11/2005	670	-87	8.39	-	-	5650	-	-	-	-
PT-15A	11/10/2005	0	-531	12.29	-	-	669000	-	-	-	-
PT-15A	11/10/2005	0	-536	12.02	-	-	387000	-	-	-	-
PT-15A	11/9/2005	0	-498	10.91	-	-	1200000	-	-	-	-
PT-15A	11/9/2005	0	-464	10.53	-	-	1710000	-	-	-	-
PT-15A	11/14/2005	1640	-189	8.92	-	-	78200	-	-	-	-
PT-15A	11/15/2005	370	-191	8.75	-	-	-	-	-	-	-
PZ-1	7/1/2004	-	-	7.93	-	-	-	-	-	-	-
PZ-7	7/1/2004	-	-	9.01	-	-	-	-	-	-	-
PZ-8	7/1/2004	-	-	8.46	-	-	-	-	-	-	-
PZ-9	7/1/2004	-	-	7.58	-	-	-	-	-	-	-
PZ-SHI-1-100	4/27/2006	0	-244	12.41	894000	-	7600	-	200 U	-	627000
PZ-SHI-1-126	4/27/2006	150	-321	9.71	3360000	-	417000	-	400 U	-	1060000
PZ-SHI-1-33	4/27/2006	0	-315	9.24	-	-	1600	-	-	-	-
PZ-SHI-2-100	8/25/2012	0	-541	13.13	-	26700000	-	-	-	2370000	-
PZ-SHI-2-25	4/28/2006	0	-331	8.6	-	-	5100	-	-	-	-
PZ-SHI-2-75	8/25/2012	0	-534	11.16	-	8000000	-	-	-	217000	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
PZ-SHI-2-75	4/28/2006	0	-421	10.45	-	-	610000	-	-	-	-
PZ-SHI-3-42	4/27/2006	0	-416	10.1	-	-	270000	-	-	-	-
PZ-SHI-3-75	4/27/2006	60	-354	9.35	-	-	220000	-	-	-	-
SB-B-DEEP	8/12/2013	2800	-52	12.36	-	-	-	-	-	-	-
SB-B-DEEP	8/9/2013	6420	-225	12.03	-	-	-	-	-	-	-
SB-B-DEEP	8/8/2013	2230	-437	11.93	-	-	-	-	-	-	-
SB-B-DEEP	8/9/2013	9030	-216	11.88	-	-	-	-	-	-	-
SB-B-DEEP	8/8/2013	2590	-435	11.68	-	-	-	-	-	-	-
SB-B-DEEP	8/8/2013	150	-480	10.55	-	-	-	-	-	-	-
SB-B-DEEP	8/8/2013	330	-257	8.24	-	-	-	-	-	-	-
SB-B-DEEP	8/7/2013	1620	-186	7.33	-	-	-	-	-	-	-
SB-B-DEEP	8/7/2013	720	-175	7.28	-	-	-	-	-	-	-
SP-1	6/27/2006	990	-685	12.04	-	-	-	-	-	-	-
SP-1	6/28/2006	1080	-556	11.99	-	-	-	-	-	-	-
SP-1	6/26/2006	2110	-551	11.69	-	-	-	-	-	-	-
SP-1	6/23/2006	1740	-468	10.27	-	-	-	-	-	-	-
SP-1	6/23/2006	700	-350	10.21	-	-	-	-	-	-	-
SP-1	6/26/2006	2710	-460	9.8	-	-	-	-	-	-	-
SP-1	6/23/2006	620	-259	7.35	-	-	-	-	-	-	-
SP-1	6/26/2006	2580	-244	6.65	-	-	-	-	-	-	-
SP-1	6/26/2006	1590	-219	6.46	-	-	-	-	-	-	-
SP-2	7/12/2006	0	-965	13.76	-	-	-	-	-	-	-
SP-2	7/12/2006	630	-848	12.64	-	-	-	-	-	-	-
SP-2	7/7/2006	800	-473	11.87	-	-	-	-	-	-	-
SP-2	7/7/2006	850	-493	11.78	-	-	-	-	-	-	-
SP-2	7/7/2006	850	-493	11.78	-	-	-	-	-	-	-
SP-2	7/7/2006	950	-533	10.74	-	-	-	-	-	-	-
SP-2	7/10/2006	1160	-494	9.78	-	-	-	-	-	-	-
SP-2	7/10/2006	1050	-538	9.67	-	-	-	-	-	-	-
SP-2	7/7/2006	1740	-230	8.69	-	-	-	-	-	-	-
SP-3	6/16/2006	1490	-664	12.04	-	-	-	-	-	-	-
SP-3	6/15/2006	1210	-486	11.49	-	-	-	-	-	-	-
SP-3	6/19/2006	2150	-622	11.32	-	-	-	-	-	-	-
SP-3	6/14/2006	1570	-316	11.26	-	-	-	-	-	-	-
SP-3	6/19/2006	1540	-540	11.16	-	-	-	-	-	-	-
SP-3	6/15/2006	1950	-521	11.15	-	-	-	-	-	-	-
SP-3	6/15/2006	1160	-372	11.11	-	-	-	-	-	-	-
SP-3	6/15/2006	110	-547	10.93	-	-	-	-	-	-	-
SP-3	6/15/2006	870	-574	10.84	-	-	-	-	-	-	-
SP-3	6/14/2006	1140	-308	10.46	-	-	-	-	-	-	-
SP-3	6/14/2006	1300	-103	8.07	-	-	-	-	-	-	-
SP-4	6/22/2006	2380	-623	12.91	-	-	-	-	-	-	-
SP-4	6/20/2006	1800	-327	11.16	-	-	-	-	-	-	-
SP-4	6/22/2006	1270	-390	11.12	-	-	-	-	-	-	-
SP-4	6/21/2006	1200	-418	9.71	-	-	-	-	-	-	-
SP-4	6/21/2006	1210	-379	9.54	-	-	-	-	-	-	-
SP-4	6/21/2006	1980	-381	8.97	-	-	-	-	-	-	-
SP-4	6/20/2006	1870	-351	8.88	-	-	-	-	-	-	-
SP-4	6/20/2006	670	-305	8.54	-	-	-	-	-	-	-
SP-4	6/20/2006	670	-305	8.54	-	-	-	-	-	-	-
SP-4	6/21/2006	1770	-298	7.72	-	-	-	-	-	-	-
SP-5	6/13/2006	380	-541	11.69	-	-	-	-	-	-	-
SP-5	6/12/2006	1780	-409	11.27	-	-	-	-	-	-	-
SP-5	6/13/2006	1390	-530	11.13	-	-	-	-	-	-	-
SP-5	6/2/2006	880	-303	11.11	-	-	-	-	-	-	-
SP-5	6/5/2006	1050	-322	10.42	-	-	-	-	-	-	-
SP-5	6/2/2006	1180	-291	10.01	-	-	-	-	-	-	-
SP-5	6/12/2006	1940	-443	9.07	-	-	-	-	-	-	-

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		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
SP-5	6/9/2006	1580	-374	8.81	-	-	-	-	-	-	-
SP-5	6/12/2006	1540	-353	8.51	-	-	-	-	-	-	-
SP-5	6/12/2006	1220	-383	8.27	-	-	-	-	-	-	-
SP-5	6/2/2006	1550	-211	8.09	-	-	-	-	-	-	-
SP-6	6/7/2006	920	-581	11.7	-	-	-	-	-	-	-
SP-6	6/7/2006	830	-539	11.67	-	-	-	-	-	-	-
SP-6	6/7/2006	840	-497	11.59	-	-	-	-	-	-	-
SP-6	6/8/2006	1620	-542	11.36	-	-	-	-	-	-	-
SP-6	6/7/2006	650	-557	11.18	-	-	-	-	-	-	-
SP-6	6/6/2006	1310	-455	9.64	-	-	-	-	-	-	-
SP-6	6/6/2006	980	-407	9.63	-	-	-	-	-	-	-
SP-6	6/6/2006	980	-407	9.63	-	-	-	-	-	-	-
SP-6	6/6/2006	100	-337	8.58	-	-	-	-	-	-	-
SP-6	6/5/2006	1240	-274	8.19	-	-	-	-	-	-	-
SP-6	6/5/2006	1930	-86	8.08	-	-	-	-	-	-	-
SP-6	6/6/2006	1470	-294	7.45	-	-	-	-	-	-	-
SP-7	7/5/2006	1070	-615	11.62	-	-	-	-	-	-	-
SP-7	7/6/2006	890	-688	11.5	-	-	-	-	-	-	-
SP-7	6/28/2006	540	-441	11.49	-	-	-	-	-	-	-
SP-7	7/5/2006	970	-635	11.24	-	-	-	-	-	-	-
SP-7	6/29/2006	2000	-567	10.81	-	-	-	-	-	-	-
SP-7	6/29/2006	2210	-529	10.8	-	-	-	-	-	-	-
SP-7	6/30/2006	2810	-476	10.76	-	-	-	-	-	-	-
SP-7	7/5/2006	930	-536	10.53	-	-	-	-	-	-	-
SP-7	6/28/2006	540	-297	8.02	-	-	-	-	-	-	-
SP-8	10/3/2006	750	-505	13.8	-	-	-	-	-	-	-
SP-8	7/19/2006	0	-580	13.2	-	-	-	-	-	-	-
SP-8	7/18/2006	0	-513	12.08	-	-	-	-	-	-	-
SP-8	10/3/2006	5410	-122	11.99	-	-	-	-	-	-	-
SP-8	7/14/2006	0	-307	8.93	-	-	-	-	-	-	-
SP-8	7/17/2006	0	-268	8.65	-	-	-	-	-	-	-
SP-8	7/14/2006	0	-295	8.44	-	-	-	-	-	-	-
SP-8	7/18/2006	0	-302	8.31	-	-	-	-	-	-	-
SP-8	7/14/2006	0	-306	8.23	-	-	-	-	-	-	-
SP-8	7/13/2006	690	-295	7.99	-	-	-	-	-	-	-
SP-8	7/13/2006	1980	-252	7.83	-	-	-	-	-	-	-
SP-8	7/13/2006	1500	-274	7.81	-	-	-	-	-	-	-
SP-8	7/17/2006	0	-233	7.8	-	-	-	-	-	-	-
SP-8	7/17/2006	0	-210	7.55	-	-	-	-	-	-	-
T1-100	9/23/1996	-	-	9.9	-	-	-	-	-	-	-
T1-100	2/4/1997	-	-	9.3	-	-	-	-	-	-	-
T1-100	8/14/1996	-	-	9.1	-	-	-	-	-	-	-
T1-100	8/14/1996	-	-	9.1	-	-	-	-	-	-	-
T1-100	6/17/1996	-	-	9	-	-	-	-	-	-	-
T1-100	6/17/1996	-	-	9	-	-	-	-	-	-	-
T1-100	7/18/1996	-	-	8.9	-	-	-	-	-	-	-
T1-100	11/7/1996	-	-	8.7	-	-	-	-	-	-	-
T1-100	8/18/1997	-	-	8.5	-	-	-	-	-	-	-
T1-100	11/21/1997	-	-	8.24	-	-	-	-	-	-	-
T1-100	2/10/2003	-	-	8.1	-	-	-	-	-	-	-
T1-100	5/13/1997	-	-	8.1	-	-	-	-	-	-	-
T1-100	2/29/1996	-	-	8.1	-	-	-	-	-	-	-
T1-100	2/29/1996	-	-	8.1	-	-	-	-	-	-	-
T1-100	3/2/1998	-	-	8.06	-	-	-	-	-	-	-
T1-100	8/11/1998	-	-	7.76	-	-	-	-	-	-	-
T1-100	5/19/1998	-	-	7.75	-	-	-	-	-	-	-
T1-100	4/12/2006	570	-202	7.73	-	-	-	-	-	-	-
T1-100	2/10/2004	-	-	7.72	-	-	-	-	-	-	-

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T1-100	8/6/2002	-	-	7.67	-	-	-	-	-	-	-
T1-100	2/23/2001	-	-	7.54	-	-	-	-	-	-	-
T1-100	8/8/2000	-	-	7.34	-	-	-	-	-	-	-
T1-100	8/15/2003	-	-	6.92	-	-	-	-	-	-	-
T1-100	2/12/1999	-	-	6.5	-	-	-	-	-	-	-
T1-25	5/8/1997	-	-	9.7	-	-	-	-	-	-	-
T1-25	2/28/1996	-	-	9.5	-	-	-	-	-	-	-
T1-25	9/23/1996	-	-	9.3	-	-	-	-	-	-	-
T1-25	8/28/1997	-	-	8.4	-	-	-	-	-	-	-
T1-25	11/21/1997	-	-	8.12	-	-	-	-	-	-	-
T1-25	11/7/1996	-	-	8	-	-	-	-	-	-	-
T1-25	6/17/1996	-	-	8	-	-	-	-	-	-	-
T1-25	8/13/1996	-	-	8	-	-	-	-	-	-	-
T1-25	11/7/1996	-	-	8	-	-	-	-	-	-	-
T1-25	2/18/2001	-	-	7.66	-	-	-	-	-	-	-
T1-25	3/2/1998	-	-	7.66	-	-	-	-	-	-	-
T1-25	2/12/1999	-	-	7.62	-	-	-	-	-	-	-
T1-25	2/4/1997	-	-	7.6	-	-	-	-	-	-	-
T1-25	2/10/2003	-	-	7.52	-	-	-	-	-	-	-
T1-25	7/18/1996	-	-	7.5	-	-	-	-	-	-	-
T1-25	5/19/1998	-	-	7.3	-	-	-	-	-	-	-
T1-25	8/6/2002	-	-	7.25	-	-	-	-	-	-	-
T1-25	8/11/1998	-	-	7.24	-	-	-	-	-	-	-
T1-25	8/8/2000	-	-	7.21	-	-	-	-	-	-	-
T1-25	5/7/1996	-	-	7.1	-	-	-	-	-	-	-
T1-25	8/15/2003	-	-	7.07	-	-	-	-	-	-	-
T1-25	8/15/2003	-	-	7.07	-	-	-	-	-	-	-
T1-50	2/4/1997	-	-	10.8	-	-	-	-	-	-	-
T1-50	2/28/1996	-	-	10.1	-	-	-	-	-	-	-
T1-50	11/7/1996	-	-	10	-	-	-	-	-	-	-
T1-50	8/18/1997	-	-	9.9	-	-	-	-	-	-	-
T1-50	9/23/1996	-	-	9.8	-	-	-	-	-	-	-
T1-50	9/23/1996	-	-	9.8	-	-	-	-	-	-	-
T1-50	5/8/1997	-	-	9.8	-	-	-	-	-	-	-
T1-50	7/18/1996	-	-	9.7	-	-	-	-	-	-	-
T1-50	7/18/1996	-	-	9.7	-	-	-	-	-	-	-
T1-50	6/17/1996	-	-	9.7	-	-	-	-	-	-	-
T1-50	8/13/1996	-	-	9.7	-	-	-	-	-	-	-
T1-50	3/2/1998	-	-	8.92	-	-	-	-	-	-	-
T1-50	5/7/1996	-	-	8.7	-	-	-	-	-	-	-
T1-50	4/12/2006	480	-168	8.46	-	-	-	-	-	-	-
T1-50	5/19/1998	-	-	8.29	-	-	-	-	-	-	-
T1-50	11/21/1997	-	-	8.28	-	-	-	-	-	-	-
T1-50	8/11/1998	-	-	7.99	-	-	-	-	-	-	-
T1-50	2/18/2001	-	-	7.89	-	-	-	-	-	-	-
T1-50	8/6/2002	-	-	7.79	-	-	-	-	-	-	-
T1-50	2/10/2003	-	-	7.78	-	-	-	-	-	-	-
T1-50	8/8/2000	-	-	7.66	-	-	-	-	-	-	-
T1-50	8/15/2003	-	-	7.61	-	-	-	-	-	-	-
T1-50	2/12/1999	-	-	6.85	-	-	-	-	-	-	-
T5-120	4/11/2006	150	-523	11.44	-	-	-	-	-	-	-
T5-60	4/11/2006	280	-352	8.87	-	-	-	-	-	-	-
T6-25	4/12/2006	0	-250	9.59	-	-	-	-	-	-	-
WMUA-11	8/2/2006	0	-209	9.04	-	-	-	-	-	-	-
WMUA-12	8/2/2006	120	-197	8.67	-	-	-	-	-	-	-
WMUA-12	8/3/2006	0	-202	8.32	-	-	-	-	-	-	-
WMUA-13	8/3/2006	0	-217	8.82	-	-	-	-	-	-	-
WMUA-14	8/8/2006	0	-136	8	-	-	-	-	-	-	-



**SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

		<i>Field</i>	<i>Field</i>	<i>Field</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>	<i>Lab</i>
WMUA-15	8/7/2006	0	-49	9.42	-	-	-	-	-	-	-
WMUA-15	8/7/2006	0	-168	7.6	-	-	-	-	-	-	-
WMUA-18	8/4/2006	0	-194	7.59	-	-	-	-	-	-	-
WMUA-18	8/7/2006	0	-184	7.48	-	-	-	-	-	-	-
WMUA-18	8/7/2006	0	-184	7.48	-	-	-	-	-	-	-
WMUA-18	8/4/2006	0	-170	7.21	-	-	-	-	-	-	-
WMUA-18	8/4/2006	0	-157	6.77	-	-	-	-	-	-	-
WMUA-19	8/3/2006	0	-297	9.08	-	-	-	-	-	-	-
WW-A1R	8/23/2012	890	-369	11.18	-	6070000	-	-	-	1810000	-
WW-A1R	8/24/2012	0	-97	9.14	-	2340000	-	-	-	2620000	-
WW-A1R	8/25/2012	7440	43	8.81	-	403000	-	-	-	2130000	-
WW-A1R	8/25/2012	0	275	8.44	-	795000	-	-	-	2080000	-
WW-A1R	8/23/2012	0	-135	8.15	-	1170000	-	-	-	1250000	-
WW-A1R	8/22/2012	0	-214	7.2	-	1600000	-	-	-	1020000	-
WW-A1R	8/22/2012	0	-144	6.84	-	726000	-	-	-	601000	-

TABLE 4.2

**SUMMARY OF DISSOLVED GASSES  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

Sample Location	Sample Date		Acetylene (ug/L)	Gas		
				Ethane (dissolved) (ug/L)	Ethene (dissolved) (ug/L)	Methane (dissolved) (ug/L)
<b><u>25 ft Zone</u></b>						
44-25	4/21/2006		-	0.255 U	0.235 U	0.105 U
44-25	4/21/2006	(Duplicate)	-	0.255 U	0.235 U	0.105 U
80-25	7/27/2012		1 U	-	-	-
21-25R	4/19/2006		-	0.255 U	57	780
53-25	5/1/2006		-	0.255 U	61	720
14-25R	4/19/2006		-	3.5	310	150
36-25	4/21/2006		-	0.255 U	0.235 U	69
4-25R	4/19/2006		-	0.255 U	18	8.9
<b><u>50 ft Zone</u></b>						
38-55	5/2/2006		-	0.255 U	0.235 U	0.105 U
44-50	4/18/2006		-	0.255 U	0.235 U	0.105 U
53C-50	7/24/2012		11	-	-	-
75-50	8/9/2012		1 U	-	-	-
83C-50	7/25/2012		3.5	-	-	-
90C-50	7/23/2012	(Duplicate)	7.2	-	-	-
WW-A1R	8/21/2012		1 U	-	-	-
WW-A1R	8/21/2012		1 U	-	-	-
721-MW9-50	4/20/2006		-	0.255 U	0.235 U	25000
WW-B2	4/13/2006		-	0.255 U	750	1400
14-50R	4/19/2006		-	3.8	41	1200
53-50	4/27/2006		-	0.255 U	0.235 U	810
11-45	4/25/2006		-	0.255 U	0.235 U	770
45-50	4/18/2006		-	0.255 U	0.235 U	760
721-MW5-50	4/20/2006		-	0.255 U	5	690
4-45R	4/18/2006		-	2.55 U	36	140
WW-D1	4/28/2006		-	0.255 U	96	71
WW-A1	3/16/2006		-	0.255 U	87	39
WW-A2	4/5/2006		-	0.255 U	0.235 U	27
<b><u>75 ft Zone</u></b>						
WW-A1	3/16/2006		-	0.255 U	110	21 J
WW-A2	4/5/2006		-	0.255 U	0.235 U	0.105 U
WW-A3	4/25/2006		-	0.255 U	0.235 U	0.105 U
WW-A1R	8/21/2012		1 U	-	-	-
WW-A2	4/5/2006		-	10.2 U	9.4 U	11000
WW-B1	3/13/2006		-	5.1 U	3200	6000
WW-B1	3/12/2006		-	5.1 U	2400	4500
WW-B1	3/12/2006		-	2.55 U	11000	3800
WW-D1	4/30/2006		-	7.8 J	340	2800
WW-B1	3/10/2006		-	5.1 U	12000	2600
WW-D1	5/1/2006		-	9.9	500	2500
WW-B3	5/9/2006		-	0.255 U	1.4 J	2300
WW-B2	4/17/2006		-	2.55 U	1300	1800
WW-B2	4/17/2006		-	2.55 U	310	510
WW-B2	4/17/2006		-	2.55 U	110	460
WW-D1	4/28/2006		-	0.255 U	830	210
WW-A2	4/5/2006		-	0.255 U	0.235 U	77
WW-A1	3/16/2006		-	0.255 U	160	48
WW-A1	3/16/2006		-	0.255 U	220	24
WW-B4	5/2/2006		-	0.255 U	0.235 U	6.6
WW-A4	4/26/2006		-	0.255 U	0.235 U	2.9
<b><u>100 ft Zone</u></b>						
WW-A3	4/26/2006		-	0.255 U	0.235 U	0.105 U
35-100	4/27/2006		-	0.255 U	0.235 U	40000
WW-A2	4/6/2006		-	10.2 U	690	6500
45-100	4/18/2006		-	1.275 U	1.175 U	2700
74-100	4/26/2006		-	12	370	2600
WW-D1	5/1/2006		-	31	690	2300
WW-B1	3/13/2006		-	5.1 U	4.7 U	1700
1-100R	4/18/2006		-	2.55 U	150	1600
11-100	4/24/2006		-	2.2	140	1000
PZ-SHI-1-100	4/27/2006		-	1.6 J	91	540
WW-A1	3/17/2006		-	5	17	520
WW-B2	4/17/2006		-	2.55 U	160	180
WW-B3	5/10/2006		-	1.8	1.6 J	140
WW-B4	5/2/2006		-	0.255 U	0.235 U	15
WW-A4	4/26/2006		-	0.255 U	0.235 U	9.2
<b><u>130 ft Zone</u></b>						
WW-A2	4/6/2006		-	0.255 U	0.235 U	0.105 U
WW-B2	4/18/2006		-	0.255 U	0.235 U	0.105 U
WW-B3	5/10/2006		-	0.255 U	0.235 U	0.105 U

**SUMMARY OF DISSOLVED GASSES  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

WW-B4	5/3/2006	-	0.255 U	0.235 U	0.105 U
WW-D1	5/15/2006	-	4.4	27	9700
WW-A1	3/17/2006	-	15	230	5000
15-120	5/1/2006	-	0.255 U	0.235 U	2900
74-130	4/26/2006	-	14	150	1900
PZ-SHI-1-126	4/27/2006	-	13	320	1400
4-115R	4/19/2006	-	0.255 U	0.235 U	340
WW-A3	5/9/2006	-	16	7.1	45
WW-B1	3/13/2006	-	0.255 U	0.235 U	27
WW-A4	4/27/2006	-	0.255 U	0.235 U	11
<b><u>160 ft Zone</u></b>					
11-183	4/25/2006	-	0.255 U	0.235 U	0.105 U
WW-A1	3/20/2006	-	0.255 U	0.235 U	0.105 U
WW-A2	4/7/2006	-	0.255 U	0.235 U	0.105 U
WW-A4	4/27/2006	-	2.8	0.235 U	0.105 U
WW-B3	5/10/2006	-	0.255 U	0.235 U	0.105 U
12-160	4/26/2006	-	0.255 U	0.235 U	-
7-181	5/2/2006	-	0.51 U	0.47 U	4700.00
WW-B1	3/13/2006	-	0.255 U	0.235 U	100.00
64-170	4/28/2006	-	0.82 J	0.92 J	70.00
12-160	4/26/2006	(Duplicate)	0.255 U	0.235 U	12.00
WW-B4	5/3/2006	-	0.255 U	0.235 U	5.90
WW-B2	4/19/2006	-	0.255 U	0.235 U	1.60

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

Sample Location	Sample ID	Sample Date	Dups	Total VOCs (ug/L) Lab	PCE (ug/L) Lab	Trichloroethene (ug/L) Lab	cis-1,2-Dichloroethene (ug/L) Lab	VC (ug/L) Lab
1-45	1-45	7/1/1980		43000	14000	29000	500 U	500 U
1-45	1-45	11/12/1988		46291	14000 J	32000 J	120 J	65 J
1-45	1-45	1/23/1989		43200 J	13000	30000	200 J	1000 UJ
1-45	1-45	8/22/1991		42645	11000	31000	320	220
1-45	1-45	5/18/1993		48160	14000	33000	490 J	200 J
1-45	1-45	5/24/1993		49529.1	14000	35000	260	170
1-45	1-45	6/1/1993		51021	14000	36000	380	370
1-45	1-45	11/4/1994		42930	12000	29000	1500	270
1-45	1-45	9/10/1997		46410	14000	30000	1700	270
1-45	1-45	5/28/1998		42470	8600	32000	760 J	940 J
1-45	1-45	2/7/1999		1	1 U	1	-	1 U
1-45	GW-041306-TS-1-45	4/13/2006		607.9 J	5 UJ	5 UJ	7.9 J	480 J
4-45	4-45	11/15/1988		3	1.0 U	3	-	-
4-45	4-45	1/20/1989		3	1	2	-	-
4-45	4-45R	8/29/1991		5.3	5 U	5 U	5.3	10 U
4-45	4-45R	9/6/1991		3.8	5.0 U	5.0 U	3.8	5.0 U
11-45	11-45	11/9/1988		1.0 U	1.0 U	1.0 U	-	-
11-45	11-45	1/17/1989		1.0 U	1.0 U	1.0 U	-	-
11-45	11-45	2/13/1991		19.19	4.1 U	1.9 U	-	10 U
11-45	11-45	8/23/1991	(Duplicate)	5 U	5 U	5 U	-	10 U
11-45	11-45	2/10/1992		5 U	5 U	5 U	5 U	10 U
11-45	11-45	8/6/1992		5 U	5 U	5 U	5 U	10 U
11-45	11-45	8/6/1992	(Duplicate)	5 U	5 U	5 U	5 U	10 U
11-45	11-45	8/16/1993		8.8	5.0 U	5.0 U	5.0 U	5.0 U
11-45	11-45	8/16/1993	(Duplicate)	5 U	5 U	5 U	5 U	5 U
11-45	11-45	2/2/1994		5 U	5 U	5 U	5 U	10 U
11-45	11-45	2/2/1994	(Duplicate)	5 U	5 U	5 U	5 U	5 U
11-45	11-45	8/10/1994		5 U	5 U	5 U	5 U	5 U
11-45	11-45	8/2/1995	(Duplicate)	5 U	5 U	5 U	5 U	5 U
11-45	11-45	2/6/1996	(Duplicate)	1.5	0.066 U	0.50 J	1	0.14 U
11-45	11-45	5/8/1996		9.5	1.0 U	1.0 U	-	-
11-45	11-45	5/8/1996	(Duplicate)	125.44	4.1 U	19.5	-	10 U
11-45	11-45	11/12/1996		151	5 U	63	-	10 U
11-45	11-45	11/12/1996	(Duplicate)	535	5 U	290	230	15
11-45	11-45	2/12/1997	(Duplicate)	380	10 U	170 D	210 D	20 U
11-45	11-45	2/12/1997		506	5 U	260	230	16
11-45	11-45	5/19/1997		248	5 U	88	150	10
11-45	11-45	8/10/1998		202	25 U	42	160	25 U
11-45	11-45	2/2/1999		177	5 U	24	140 J	13
11-45	11-45	8/12/1999		161	5 U	21 J	140 J	10 U
11-45	11-45	2/7/2000		94	5 U	12	82	5 U
11-45	11-45-TR-021301	2/13/2000		62	5 U	5 U	62	5 U
11-45	11-45-TR-080900	8/9/2000		92.4	5 U	5 U	21	66
11-45	11-45-TR-021301	2/13/2001		85.4	5 U	1.4 J	60	24
11-45	11-45-TR-080801	8/8/2001		86	5 U	5 U	20	66
11-45	11-45-TR-012702	1/27/2002		82.1	5 U	5 U	66	13
11-45	11-45-TR-080702	8/7/2002		77	5 U	5 U	61	16
11-45	11-45-0203	2/11/2003		115	5 U	5 U	89	23
11-45	11-45-0803	8/18/2003		88.8	5 U	5 U	70	15
11-45	FD4-0803	8/18/2003	(Duplicate)	0.119 J	0.015 U	0.02 U	0.015 U	0.025 U
11-45	11-45-0204	2/12/2004		74.5	5 U	5 U	66	5 U
11-45	GW-042506-TV-11-45	4/25/2006		35.7 J	1.5 U	1.6 U	1.6 U	2.3 U
11-45	GW-121013-KW-11-45-29	12/10/2013		0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
12-45	12-45	11/14/1988		5 U	5 U	5 U	5 U	5 U
12-45	12-45	2/14/1991		1.05	0.066 U	0.10 J	0.95 J	0.14 U
12-45	12-45	8/22/1991		5 U	5 U	5 U	-	10 U
12-45	12-45	2/9/1995		0.58	0.20 J	0.14 J	0.062 U	0.14 U
12-45	12-45	2/29/1996		5 U	5 U	5 U	-	10 U
12-45	12-45	2/13/1997		3.1	1.0 U	1.3	-	-
12-45	12-45	5/22/1997		3 U	1 U	1 U	-	1 U
12-45	12-45	11/4/1997		25.29 J	0.26 U	1.3	-	0.19 U
12-45	12-45	2/11/1998		5.49	0.50 U	0.10 J	0.96	0.48 J
12-45	12-45	5/20/1998		1.0 U	1.0 U	1.0 U	-	-
12-45	12-45	8/6/1998		1.0 U	1.0 U	1.0 U	-	-
12-45	12-45	11/17/1998		3 U	1 U	1 U	-	1 U
12-45	12-45	5/12/2000		3 U	1 U	1 U	-	1 U
12-45	12-45-TR-080700	8/7/2000		147800	1300 U	600 J	130000	16000

TABLE 4.3  
 SUMMARY OF VOCs  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

12-45	12-45	5/5/2002	173	98	75	-	10 U
12-45	12-45-DC-110802	11/8/2002	230	90	140	-	5 U
12-45	FD5-0803	8/19/2003 (Duplicate)	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
12-45	FD2-1103	11/17/2003 (Duplicate)	2.5	1.50 U	1.60 U	1.60 U	2.5 J
12-45	12-45-1103	11/17/2003	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
12-45	12-45-0204	2/13/2004	1 U	-	-	-	1 U
12-45	FD-11-0204	2/13/2004 (Duplicate)	3348 J	3.00 U	3.20 U	3000	290
12-45	12-45-0504	5/11/2004	1.44	0.50 U	0.50 U	0.48 J	0.52
12-45	12-45-0505	5/11/2005	3 U	1 U	1 U	-	1 U
12-45	GW-040606-TS-12-45	4/6/2006	7696	25 U	25 U	3300	3900
12-45	GW-071806-ILM-12-45	7/18/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
2-50	2-50	11/11/1988 (Duplicate)	50400	46000	4400	-	5000 U
2-50	2-50	1/16/1989	234640	24000 D	120000 D	2900 D	2100
2-50	2-50	2/15/1991	124500	34000	65000	2500 U	2500 U
2-50	2-50	2/15/1991 (Duplicate)	137700	34000	71000	3000	2700
2-50	2-50	2/11/1992	136000	27000	66000	8400	8000
2-50	2-50	5/14/1993 (Duplicate)	71600	23000	33000	3100	2500
2-50	2-50	5/17/1993	155400	59000	82000	2600	2500 U
2-50	2-50	5/25/1993	143100	50000	78000	2600	2500 U
2-50	2-50	6/2/1993	166000	110000	56000	2500 U	2500 U
2-50	2-50	2/8/1994 (Duplicate)	70000	33000	37000	2500 U	2500 U
2-50	2-50	2/8/1994	177000	120000	57000	2500 U	2500 U
2-50	2-50	10/31/1994	77700	31000	42000	1000	1000 U
2-50	2-50	2/14/1995	56000	26000	30000	2500 U	2500 U
2-50	2-50	5/18/1995	53000	21000	29000	820	500 U
2-50	2-50	5/28/1998	53420	21000	30000	820	500 U
2-50	2-50	8/5/2000	51980	24000	26000	530	500 U
2-50	2-50-TR-022401	2/24/2001	5 U	5 U	5 U	5 U	5 U
2-50	GW-042406-LH-2-50	4/24/2006	40680	4500	14000	20000	1600
3-50	3-50	1/1/1987	43200	21000	21000	550	500 U
3-50	SP-07842-110802-DC-083	11/8/2002	366.7	0.66 U	82	210	71
3-50	GW-042206-LH-3-50	4/22/2006	70600	9700	32000	25000	1100
3-50	GW-072706-ILM-3-50	7/27/2006	1493.2	88.4	1200	180	11.2
3-50	GW-021709-TG-MW3-GW	2/16/2009	363.7 Y	50	91	72	2.8
3-50	GW-021709-TG-FD1-GW	2/17/2009 (Duplicate)	107	0.15 U	0.16 U	19	88
3-50	GW-070609-TG-MW3-GW	7/6/2009	0.181 UJ	0.144 U	0.126 U	0.154 UJ	0.162 UJ
5-50	5-50	5/14/1993	231900	28000	160000	31000	2500 U
5-50	5-50	5/18/1993	59200	23000	32000	1100	500 U
5-50	5-50	2/8/1994	79300	30000	44000	1700	500 U
5-50	5-50	2/14/1995	39000	22000	17000	1000 U	1000 U
5-50	5-50	5/17/1995	27958.9	13000 J	12000 J	490 J	60 J
5-50	5-50	2/9/1996	45700	16000	25000	1100	1000 U
5-50	5-50	5/13/1996	71300	15000	47000	1900	1000 U
5-50	5-50	2/6/1997	52570	8000	30000	2700	5500
5-50	5-50	5/13/1997	42000 J	11000 J	25000 J	880 J	370 J
5-50	5-50	8/13/1997	38010	10000	23000	670	270
5-50	5-50	2/25/1998	37880	13000	22000	590	250 U
5-50	5-50	2/25/1998 (Duplicate)	27590 J	15000	12000	440	250 U
5-50	5-50	3/1/1998	27022.2	15000 J	11000 J	400	91
5-50	5-50	4/1/1998	47440	16000	26000	4200	910
5-50	5-50	5/13/1998	26708	8400	8600	3700	5800
5-50	5-50	8/16/1998	447000	37000	230000	-	25000 U
5-50	5-50	10/1/1998	293420	24000 DJ	170000 DJ	41000 DJ	3400 DJ
5-50	5-50	11/14/1998	247400	26000	142900	36250	25000 U
5-50	5-50	12/1/1998	255300	28000	150000	37000	5500
5-50	5-50	1/1/1999	287000	32000	170000	41000	5700
5-50	5-50	2/1/1999	261200	29000	150000	46000	8700
5-50	5-50	5/1/1999	242900	29000	140000	40000	5100
5-50	5-50	5/22/1999	228900	27000	140000	35000	3300
5-50	5-50	8/1/1999	216500	27000	140000	30000	3500
5-50	5-50	8/19/1999	209900	23000	130000	32000	3700
5-50	DUP-2	11/4/1999 (Duplicate)	2.94	0.29 J	1.4	0.98 J	0.14 U
5-50	5-50	11/4/1999	191500	23000	120000	28000	3500
5-50	5-50	2/4/2000	209100	25000	130000	35000	3100
5-50	5-50-TR-021501	2/15/2001	5 U	5 U	5 U	5 U	5 U
5-50	5-50	8/10/2001	196000	25000	130000	25000	2500
5-50	5-50-TR-081001	8/10/2001	5 U	5 U	5 U	5 U	5 U
5-50	FD1-TR-012402	1/24/2002 (Duplicate)	17123	93 J	2400	10000	3400
5-50	5-50-TR-043002	4/30/2002	2.9	5 U	2.9 J	5 U	5 U
5-50	5-50-TR-073102	7/31/2002	5 U	5 U	5 U	5 U	5 U
5-50	5-50-DC-110602	11/6/2002	5 U	5 U	5 U	5 U	5 U



**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

3-1	15393	8/11/2004	55000	18000 D	37000 D	80 U	80 U
3-1	15394	8/11/2004	57000	18000	39000 J	80 U	80 U
3-25	SP-07842-110802-DC-086	11/8/2002	0.14	0.066 U	0.055 U	0.14 J	0.14 U
3-25	GW-3-25-0604	6/2/2004	28767.82	0.015 U	0.02 U	16400	11700
4-2	14556	8/10/2004	79530	10200	48000	10000	1950
4-25	4-25	1/20/1989	191300	14000	150000	11000	2500 U
5-15	5-15	2/11/1992	204300	16000	160000	15000	2500 U
5-15	5-15	2/9/1993	226100	18000 J	180000 J	15000 J	2500 U
5-15	5-15	2/14/1995	193500	18000	150000	14000	7200
5-15	5-15	5/17/1995	193700	18000	150000	14000	7300
5-15	5-15	2/9/1996	279560	13000 D	240000 J	13000	160
5-15	5-15	5/13/1996	331750	18000	290000 J	12000	120
5-15	5-15	8/15/1996	183200	14000	150000	12000	5000 U
5-15	5-15	11/8/1996	183800	15000	150000	12000	5000 U
5-15	5-15	8/27/1997	217100 J	17000 J	180000 J	14000 J	1000 UJ
5-15	5-15	11/20/1997	171470	15000	140000	12000	2500 U
5-15	5-15	3/1/1998	193709	16000	160000	14000	1290 J
5-15	5-15	5/13/1998	194070	16000	160000	13000	870 J
5-15	5-15	6/1/1998	188760	16000	150000	15000	1000
5-15	5-15	7/1/1998	210800	20000	170000	14000	1800
5-15	5-15	8/16/1998	210800	21000	170000	15000	1900
5-15	5-15	9/1/1998	177200	20000	140000	15000	2200 J
5-15	5-15	12/1/1998	515	41	225	-	10 U
5-15	5-15	2/1/1999	260	61	140	59	25 U
5-15	5-15	5/1/1999	172	9	85	78	5 U
5-15	5-15	8/1/1999	185	8	90	87	5 U
5-15	5-15	2/4/2000	260	5 U	120 J	140 J	5 U
5-25	5-25	2/14/1991	275	5 J	130 J	140 J	5 U
5-25	5-25	2/11/1992	221	5	110	100	5 U
5-25	5-25	2/9/1993	196	5	100	91	5 U
5-25	5-25	2/9/1993 (Duplicate)	235	5	120	110	5 U
5-25	5-25	5/14/1993	5 U	5 U	5 U	5 U	5 U
5-25	5-25	5/18/1993	270	5 U	140	130	5 U
5-25	5-25	5/26/1993	387	7 J	180 J	200 J	5 U
5-25	5-25	2/14/1995	274	8	130	130	6
5-25	5-25	5/13/1996	132	5 U	72	60	5 U
5-25	5-25	2/25/1998	229	5 U	99	130	5 U
5-25	5-25	5/13/1998	91	5 U	46	45	5 U
5-25	5-25	7/1/1998	580	25 U	290	290	25 U
5-25	5-25	8/16/1998	32	16 U	32	16 U	16 U
5-25	5-25	9/1/1998	67	5 U	30	37	5 U
5-25	5-25	10/1/1998	78	6	34	38	5 U
5-25	5-25	12/1/1998	78	6	34	38	5 U
5-25	5-25	2/1/1999	83.6	4.4 J	28	32	3.2 J
5-25	5-25	2/6/1999	82.4	4.5 J	27	33	2.9 J
5-25	5-25	5/1/1999	500 UJ	500 UJ	500 UJ	500 UJ	500 UJ
5-25	5-25	5/22/1999	109.5	6.1	43	51	2.6 J
5-25	5-25	8/1/1999	72.6	1.9 J	25	43	1.6 J
5-25	5-25	8/19/1999	60.4	4.1 J	15	33	8.3
5-25	5-25	11/4/1999	98.97	6.9	24	63	4.6 J
5-25	5-25	5/12/2000	5 U	5 U	5 U	-	10 U
5-25	5-25-TR-080300	8/3/2000	63	12	28	5 U	23
5-25	5-25	11/13/2000	11.3	5.4	5.9	5.0 U	5.0 U
5-25	5-25-TR	11/13/2000	5 U	5 U	5 U	5 U	5 U
5-25	5-25-TR-021501	2/15/2001	19.2	3.2 J	5 U	5 U	5 U
5-25	5-25-TR-081001	8/10/2001	62	5 U	5 U	5 U	62
5-25	5-25	8/10/2001	5 U	5 U	5 U	5 U	5 U
5-25	5-25	1/24/2002	5 U	5 U	5 U	5 U	5 U
5-25	5-25-TR-012402	1/24/2002	5 U	5 U	5 U	5 U	5 U
5-25	5-25-TR-043002	4/30/2002	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
5-25	5-25	4/30/2002	5 U	5 U	5 U	5 U	5 U
5-25	5-25-TR-073102	7/31/2002	0.19	2.0 U	2.0 U	2.0 U	2.0 U
5-25	5-25-RW-110602	11/6/2002	5 U	5 U	5 U	5 U	5 U
5-25	5-25-0503	5/12/2003	5 U	5 U	5 U	5 U	5 U
5-25	5-25-1103	11/13/2003	5 U	5 U	5 U	5 U	5 U
5-25	5-25-0204	2/5/2004	5	5 U	5 U	5 U	5
5-25	5-25-0504	5/11/2004	6	5 U	5 U	5 U	6
5-25	5-25-0804	8/16/2004	5 U	5 U	5 U	5 U	5 U
5-25	5-25-1104	11/9/2004	5 U	5 U	5 U	5 U	5 U
5-25	5-25-0205	2/17/2005	7	5 U	5 U	5 U	7
5-25	GW-040706-TS-5-25	4/7/2006	34130	125 U	240 J	4600	29000

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

5-25	GW-071006-TR-5-25	7/10/2006	0.42	0.0578 U	0.185 J	0.235 J	0.0604 U
5-25	GW-021208-MM-5-25	12/2/2008	9.5 U	0.75 U	0.80 U	0.80 U	1.2 U
5-25	GW-051208-MM-5-25	12/5/2008	0.14	0.066 U	0.055 U	0.14 J	0.14 U
5-25	GW-021109-TG-5-25-GW	2/11/2009	520	1.5 U	1.6 U	1.6 U	2.3 U
5-25	GW-070609-TG-5-25-GW	7/6/2009	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5-25	WG-080812-LP-5-25-004	8/8/2012	23.25	0.27 J	0.68 J	3.3	19
6-3	14564	8/10/2004	4585 J	21 J	28 J	15 J	4500
7-1	14586	8/10/2004 (Duplicate)	34000	13000	21000	500 U	500 U
7-3	14567	8/10/2004	78300	31000	42000	-	5300
7-25	7-25	1/19/1989	5 U	5 U	5 U	5 U	5 U
7-25	7-25	5/4/1993	5 U	5 U	5 U	5 U	5 U
7-25	7-25	5/14/1993	26	12	14	5 U	5 U
7-25	7-25	5/17/1993	5 U	5 U	5 U	5 U	5 U
7-25	7-25	5/24/1993	6	5 U	6	5 U	5 U
7-25	7-25	6/1/1993	761	190	370	110	8
8-1	14584	8/10/2004	26000	11000	15000	500 U	500 U
8-23	8-23	11/4/1988	25	11	14	5 U	5 U
8-23	8-23	5/28/1998	541	58	450	33	25 U
8-23	8-23	8/12/1998	10	10 U	10	10 U	10 U
8-23	8-23-TR-022401	2/24/2001	5 U	5 U	5 U	5 U	5 U
8-23	8-23	5/5/2002	18	6	12	5 U	5 U
8-23	8-23-TR-050502	5/5/2002	5 U	5 U	5 U	5 U	5 U
8-23	8-23-TR-080602	8/6/2002	5 U	5 U	5 U	5 U	5 U
8-23	8-23-RW-110602	11/6/2002	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0203	2/5/2003	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0503	5/6/2003	5 U	5 U	5 U	5 U	5 U
8-23	FD6-0803	8/19/2003 (Duplicate)	1306.2	0.15 U	0.16 U	3.8 J	1300
8-23	8-23-0803	8/19/2003	5 U	5 U	5 U	5 U	5 U
8-23	8-23-1103	11/17/2003	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0204	2/17/2004	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0504	5/11/2004	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0804	8/19/2004	5 U	5 U	5 U	5 U	5 U
8-23	8-23-1104	11/12/2004	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0205	2/16/2005	5 U	5 U	5 U	5 U	5 U
8-23	8-23-0505	5/19/2005	5 U	5 U	5 U	5 U	5 U
8-23	GW-041406-TR-8-23	4/14/2006	183.42	0.066 U	0.15 J	12	150
8-23	GW-071506-TR-8-23	7/15/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
8-23	GW-021208-TG-8-23	12/2/2008	379.7	32	24	210	90
8-23	WG-081112-JN-8-23-014	8/11/2012	56511.7	17000	33000	5300	870
9-2	14587	8/10/2004 (Duplicate)	43000	18000 J	25000	500 U	500 U
9-3	14588	8/10/2004 (Duplicate)	46000	20000 J	26000	500 U	500 U
9-25	9-25	10/31/1988	18	5 U	18	5 U	5 U
9-25	9-25-0304	3/16/2004	153	5 U	5 U	9	84
9-25	GW-041406-TS-9-25	4/14/2006	13900 J	500 U	500 U	1900	12000
9-25	GW-071506-TR-9-25	7/15/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
9-25	GW-120111-AK-9-25	12/1/2011	0.858	0.015 U	0.117 J	0.498 J	0.243
10-1	14574	8/10/2004	62500	8500	54000	1000 U	1000 U
10-2	14575	8/10/2004	30100	9100	21000	1000 U	1000 U
10-3	14576	8/10/2004	45000	13000	32000	500 U	500 U
10-4	14577	8/10/2004	43000	15000	28000	500 U	500 U
10-5	14578	8/10/2004	35000	12000	23000	500 U	500 U
10-24	10-24	11/8/1988	31	5 U	23	8	5 U
11-25	GW-070706-TR-11-25	7/7/2006	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
11-25	GW-031208-MM-11-25	12/3/2008	13.7	1.5 U	1.6 U	1.6 U	5.5 J
11-25	GW-121013-KW-11-25-27	12/10/2013	1.5	0.15 U	0.16 U	1.5 J	0.23 U
12-25	12-25	2/29/1996	32	5 U	25	7	5 U
12-25	12-25	5/20/1996	10 U	10 U	10 U	10 U	10 U
12-25	12-25	8/21/1996	34	5 U	19	15	5 U
12-25	12-25	2/13/1997	55.2	3.2	36	16	5 U
12-25	12-25	5/22/1997	36	5 U	24	12	5 U
12-25	12-25	11/4/1997	35.2	5 U	18	8.8	5 U
12-25	12-25	2/11/1998 (Duplicate)	29	5 U	19	10	5 U
12-25	12-25	2/11/1998	82.9	33	39	10	5 U
12-25	12-25	5/20/1998	13.327	0.39 J	5	6	1.3
12-25	12-25	2/4/1999	29	11	4	-	1 U
12-25	12-25	5/19/1999	11	6	5	5 U	10 U
12-25	12-25	8/16/1999	25	5	11	5 U	10 U
12-25	12-25	8/16/1999 (Duplicate)	25	5 U	5 U	5 U	10 U
12-25	12-25	11/11/1999	33.5	5.5	5.0 U	5.0 U	5.0 U
12-25	12-25	2/7/2000	17	12	5	5 U	5 U
12-25	12-25	5/12/2000	13	13 J	5 U	5 U	5 U



**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

12-25	12-25-TR-080700	8/7/2000	43.4	21	9.2	5 U	9.1
12-25	12-25	11/15/2000	18	11	5 U	5 U	5 U
12-25	12-25-TR-051601	5/15/2001	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
12-25	12-25-TR-051601	5/16/2001	6	3	3	-	1 U
12-25	12-25	8/20/2001	19	10	5 U	5 U	5 U
12-25	12-25	1/30/2002	14	9	5	5 U	5 U
12-25	12-25	5/5/2002	11	11	5 U	5 U	5 U
12-25	12-25-TR-080502	8/5/2002	3 U	1 U	1 U	-	-
12-25	12-25-DC-110802	11/8/2002	0.13	0.066 U	0.13 J	0.062 U	0.14 U
12-25	12-25-0203	2/6/2003	6.8	5 U	5 U	5 U	6.8
12-25	FD2-0503	5/7/2003 (Duplicate)	121.1	0.15 U	4.8 J	75	40
12-25	12-25-0503	5/7/2003	5 U	5 U	5 U	5 U	5 U
12-25	12-25-0803	8/19/2003	5 U	5 U	5 U	5 U	5 U
12-25	12-25-1103	11/17/2003	5 U	5 U	5 U	5 U	5 U
12-25	12-25-0204	2/13/2004	5 U	5 U	5 U	5 U	5 U
12-25	12-25-0504	5/11/2004	6.5	5 U	3.8 J	2.7 J	5 U
12-25	12-25-0804	8/16/2004	13	5 U	5 U	5 U	5 U
12-25	12-25-1104	11/15/2004	3.6	1.3 J	2.3	2 U	2 U
12-25	12-25-0205	2/8/2005	8.7 J	5 UJ	2.2 J	6.5 J	5 UJ
12-25	12-25-0505	5/11/2005	5 U	5 U	5 U	5 U	5 U
12-25	GW-040606-TS-12-25	4/6/2006	7171.3	5.2	29	2700	4200
10-100	10-100	8/11/1998	24	2	3	-	1 U
10-100	10-100	2/14/1999	21	5 U	5 U	5 U	10 U
10-100	10-100	2/11/2000	16	5 U	7	5 U	10 U
10-100	10-100	8/10/2000	5 U	5 U	5 U	5 U	10 U
10-100	10-100	11/15/2000	5 U	5 U	5 U	5 U	10 U
1-100	1-100	11/12/1988	8.3	5.0 U	5.0 U	5.0 U	5.0 U
1-100	1-100	11/12/1988 (Duplicate)	23	7 J	5 U	5 U	10 U
1-100	1-100	1/23/1989	27	8	5 U	5 U	5 U
1-100	1-100	5/13/1993	5	5	5 U	5 U	5 U
1-100	1-100	5/18/1993	14	8	5 U	5 U	5 U
1-100	1-100	5/24/1993	7	7	5 U	5 U	5 U
1-100	1-100	6/1/1993	7	7	5 U	5 U	5 U
1-100	1-100	9/10/1997	8	8	5 U	5 U	5 U
1-100	1-100	3/5/1998	7	7	5 U	5 U	5 U
1-100R	1-100R	6/3/1998	9	9	5 U	5 U	5 U
1-100R	1-100R	8/16/1998	17	7	5 U	5 U	5 U
1-100R	1-100R	5/20/1999	20	10	5 U	5 U	5 U
1-100R	DUP-9	2/14/2000 (Duplicate)	124625	150 J	16000	90000 J	10000 J
1-100R	FD7-TR-080900	8/9/2000 (Duplicate)	31892.6	1.6 J	48	27000	4600 J
1-100R	FD8-TR-022401	2/24/2001 (Duplicate)	15.43 J	0.15 U	0.73 J	8.2	6.5
1-100R	1-100R	8/16/2001	7	7	5 U	5 U	5 U
1-100R	1-100R-TR-081601	8/16/2001	7	7	5 U	5 U	5 U
1-100R	1-100R-TR-012602	1/26/2002	6	6	5 U	5 U	5 U
1-100R	1-100R-TR-080402	8/4/2002	6	6	5 U	5 U	5 U
1-100R	1-100R-0203	2/12/2003	9	9	5 U	5 U	5 U
1-100R	FD7-0203	2/12/2003 (Duplicate)	273507.58	0.58 J	7	160000	110000
1-100R	1-100-0803	8/16/2003	9	9	5 U	5 U	5 U
1-100R	FD-9-0204	2/10/2004 (Duplicate)	30.053	0.141 J	3.4	15.8	2.57
1-100R	GW-041806-TS-1-100R	4/18/2006	37.2 J	1.5 U	1.6 U	3.1 J	2.3 U
11-100	11-100	8/6/1992	7	7	5 U	5 U	5 U
11-100	11-100	11/11/1992 (Duplicate)	12	12 J	5 U	5 U	5 U
11-100	11-100	2/2/1993	10	10	5 U	5 U	5 U
11-100	11-100	5/13/1993	2.74	1.3	0.69	0.55	0.50 U
11-100	11-100	5/13/1993 (Duplicate)	180	1 U	1 U	-	1 U
11-100	11-100	5/17/1993	10.7	7.6	3.1 J	5 U	5 U
11-100	11-100	6/1/1993	8	8	5 U	5 U	5 U
11-100	11-100	8/16/1993	8.3	8.3	5 U	5 U	5 U
11-100	11-100	2/2/1994	6.1	6.1	5 U	5 U	5 U
11-100	11-100	8/10/1994	6	6	5 U	5 U	5 U
11-100	11-100	5/12/1995	10.1	6.4	3.7 J	5 U	5 U
11-100	11-100	2/6/1996	6.6	4.3 J	2.3 J	5 U	5 U
11-100	11-100	5/8/1996	4.1	4.1 J	5 U	5 U	5 U
11-100	11-100	8/21/1996	134.2	3.1 J	2.9 J	110	12
11-100	11-100	11/12/1996	133.7	3.7 J	2.5 J	120	7.5
11-100	11-100	2/12/1997	41.2	4.2 J	5 U	37	5 U
11-100	11-100	5/19/1997 (Duplicate)	14.9	2.9 J	5 U	12	5 U
11-100	11-100	5/19/1997	22.3	2.0 J	3.0 J	16.2	1.1 J
11-100	11-100	8/19/1997	5 U	5 U	5 U	5 U	5 U
11-100	11-100	11/4/1997	17.5	5 U	9.3	4.2 J	5 U
11-100	11-100	2/10/1998	8.5	5 U	5.3	3.2 J	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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**TACOMA, WASHINGTON**

11-100	11-100	5/19/1998	21.1	5 U	3.6 J	2.5 J	5 U
11-100	11-100	8/10/1998	8.4	2.7 J	2.8 J	2.9 J	5 U
11-100	11-100	2/8/1999	43.3	2.1	2.5	2 U	2 U
11-100	11-100	8/12/1999	7.45	3.1	3.1	0.39 J	0.14 U
11-100	FD-3-TR	11/15/2000 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
11-100	11-100-TR-021301	2/13/2001	145	25 U	25 U	25	25 U
11-100	11-100-TR-080801	8/8/2001	156	5 U	5 U	26 J	10 U
11-100	FD7-TR-012702	1/27/2002 (Duplicate)	80510.7	0.70 J	540	60000	19000
11-100	11-100-TR-080702	8/7/2002	158	26	22 J	25 U	25 U
11-100	11-100-0203	2/11/2003	44	5 U	5 U	9	10
11-100	11-100-0803	8/18/2003	64	5 U	5 U	18	11
11-100	11-100-0204	2/12/2004	26	5 U	5 U	8	10 U
11-100	FD-10-0204	2/12/2004 (Duplicate)	302305.2	0.15 U	5.2	200000	100000
11-100	GW-031208-MM-11-100	12/3/2008	26.4 J	1.5 U	1.6 U	3.2 J	2.3 U
11-100	GW-121013-BP-11-100-30	12/10/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
11-183	11-183	1/17/1989	67	5 U	5 U	13	10
11-183	11-183	2/13/1991	164	5 U	5 U	22	12
11-183	11-183	2/13/1991 (Duplicate)	451	5 U	5 U	48	23
11-183	11-183	8/30/1991	443	5 U	5 U	62	31
11-183	11-183	2/10/1992	350	5 U	5 U	34	16
11-183	11-183	8/6/1992	134	5 U	5 U	40	22
11-183	11-183	11/14/1992	299	5 U	5 U	47	22
11-183	11-183	11/14/1992 (Duplicate)	608	5 U	5 U	81	17
11-183	11-183	2/2/1993	439	5 U	5 U	85	24
11-183	11-183	5/13/1993	112	5 U	5 U	80	17
11-183	11-183	5/17/1993	475	5 U	5 U	70 J	15 J
11-183	11-183	5/26/1993	431	5 U	5 U	5	16
11-183	11-183	2/2/1994	612	5 U	5 U	69	13
11-183	11-183	5/15/1995	423	10 U	10 U	88	25
11-183	11-183	8/2/1995	469	10 U	10 U	96	23
11-183	11-183	8/21/1996	430	10 U	10 U	74	16
11-183	11-183	8/19/1997	488	10 U	10 U	68	10
11-183	11-183	2/11/1998	387	25 U	25 U	77	25 U
11-183	11-183	8/4/1998	246	10 U	10 U	82	14
11-183	11-183	2/8/1999	172	5 U	5 U	100	16
11-183	11-183	8/12/1999	174	5 U	5 U	100	18
11-183	11-183	2/3/2000	197	5 U	5 U	85 J	17 J
11-183	11-183-TR-080300	8/3/2000	442.7 J	5 UJ	2.7 J	110 J	5 UJ
11-183	11-183	2/13/2001	233	5 U	5 U	97	21
11-183	11-183-TR-021301	2/13/2001	380 J	5 UJ	5 UJ	100 J	5 UJ
11-183	11-183-TR-080801	8/8/2001	135	5 U	5 U	75	11
11-183	11-183	8/8/2001	256.1	1.1 J	5 U	96	19
11-183	11-183-0203	2/11/2003	235	5 U	5 U	99	16
11-183	11-183-0803	8/14/2003	169	5 U	5 U	81	9
11-183	11-183-0204	2/12/2004	228.9	5 U	5 U	81	7.9
11-183	WG-080712-JN-11-183-022	8/7/2012	5912	6.6 U	69 J	960	4800
1-175	1-175	11/8/1988	78	5 U	5 U	14	64
1-175	1-175	5/13/1993	72.8	2 U	2.3	5.5	36
1-175	1-175	5/18/1993	85	5 U	5 U	11	74
1-175	1-175	5/24/1993	80.5	5 U	5 U	7.5	54
1-175	1-175	6/1/1993	59.3	5 U	5 U	5.3	54
12-100	GW-042606-TV-12-100	4/26/2006	22920	610	2400	16000	3300
12-100	GW-041208-MM-FD3	12/4/2008 (Duplicate)	1690	100 U	100 U	850	500
12-100	GW-041208-MM-12-100	12/4/2008	3880	100 U	100 U	3200	260
12-160	12-160	11/15/1988	96.57	0.066 U	0.17 J	7.4	88
12-160	12-160	5/8/1991 (Duplicate)	65	2.5 U	2.5 U	20	45
12-160	12-160	8/28/1991 (Duplicate)	3.54	0.50 U	0.50 U	0.50 U	0.50 U
12-160	12-160	8/28/1991	3.66	0.50 U	0.50 U	0.070 J	0.50 U
12-160	12-160	11/13/1991	3 U	1 U	1 U	-	1 U
12-160	12-160	2/10/1992	5 U	5 U	5 U	5 U	10 U
12-160	12-160	5/29/1992	5 U	5 U	5 U	5 U	10 U
12-160	12-160	8/7/1992	24	5 U	5 U	7	10 U
12-160	12-160	11/12/1992	5 U	5 U	5 U	5 U	10 U
12-160	12-160	2/3/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
12-160	12-160	5/16/1994	5 U	5 U	5 U	5 U	10 U
12-160	12-160	8/10/1994	5 U	5 U	5 U	5 U	5 U
12-160	12-160	11/2/1994	5 U	5 U	5 U	5 U	5 U
12-160	12-160	2/9/1995	5 U	5 U	5 U	5 U	5 U
12-160	12-160	5/12/1995	5 U	5 U	5 U	5 U	5 U
12-160	12-160	8/8/1995	5 U	5 U	5 U	5 U	5 U
12-160	12-160	2/29/1996	5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

12-160	12-160	5/22/1996	5 U	5 U	5 U	5 U	5 U
12-160	12-160	8/23/1996	5 U	5 U	5 U	5 U	5 U
12-160	12-160	9/26/1996	5 U	5 U	5 U	5 U	5 U
12-160	12-160	11/18/1996	5 U	5 U	5 U	5 U	5 U
12-160	12-160	8/25/1997	5 U	5 U	5 U	5 U	5 U
12-160	12-160	11/4/1997	5 U	5 U	5 U	5 U	5 U
12-160	12-160	5/21/1998 (Duplicate)	5 U	5 U	5 U	5 U	5 U
12-160	12-160	2/3/1999	5 U	5 U	5 U	5 U	5 U
12-160	12-160	5/19/1999	5 U	5 U	5 U	5 U	5 U
12-160	12-160	5/12/2000	5 U	5 U	5 U	5 U	5 U
12-160	12-160-TR-080700	8/7/2000	5 U	5 U	5 U	5 U	5 U
12-160	12-160-TR-021401	2/14/2001	5 U	5 U	5 U	5 U	5 U
12-160	12-160-TR-051601	5/16/2001	5 U	5 U	5 U	5 U	5 U
12-160	12-160	8/20/2001	5 U	5 U	5 U	5 U	5 U
12-160	12-160-TR-082001	8/20/2001	5 U	5 U	5 U	5 U	5 U
12-160	12-160	5/5/2002	5 U	5 U	5 U	5 U	5 U
12-160	12-160-TR-080502	8/5/2002	5 U	5 U	5 U	5 U	5 U
12-160	12-160-DC-110802	11/8/2002	5 U	5 U	5 U	5 U	5 U
12-160	12-160-0203	2/6/2003	5 U	5 U	5 U	5 U	5 U
12-160	12-160-0503	5/7/2003	5 U	5 U	5 U	5 U	5 U
12-160	12-160-1103	11/17/2003	5 U	5 U	5 U	5 U	5 U
12-160	12-160-0804	8/16/2004	5 U	5 U	5 U	5 U	5 U
12-160	12-160-1104	11/15/2004	5 U	5 U	5 U	5 U	5 U
12-160	12-160-0205	2/8/2005	5 U	5 U	5 U	5 U	5 U
12-160	12-160-0505	5/11/2005	5 U	5 U	5 U	5 U	5 U
12-160	GW-042606-TV-FD	4/26/2006 (Duplicate)	3053	25 U	25 U	1300	1700
12-160	GW-071806-ILM-12-160	7/18/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
12-160	GW-062713-LP-12-160-12	6/27/2013	138600	8000	72000	37000	4400
12-160	GW-062713-LP-12-160-13	6/27/2013 (Duplicate)	153900	8700	82000	38000	5100
12A-25	12A-25	9/26/1996	146	2 U	16	-	5 U
12A-25	GW-041208-MM-12A-25	12/4/2008	9920	100 U	120	7500	1100
12A-50	12A-50	9/26/1996	132200	500 U	10500	98200 J	20400
12A-50	12A-50	5/30/1997	5 U	-	-	-	10 U
12A-50	GW-041208-MM-12A-50	12/4/2008	7350	100 U	100 U	5200	1200
14-25	14-25	11/11/1988	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
14-25	14-25	1/24/1989	0.3	0.50 U	0.50 U	0.30 J	0.50 U
14-25	14-25	5/25/1993	5 U	5 U	5 U	-	10 U
14-25R	14-25R	11/8/1998	3	5 U	5 U	5 U	5 U
14-25R	14-25	11/8/1998	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
14-25R	14-25	2/4/1999	3 U	1 U	1 U	-	1 U
14-25R	14-25R	2/4/1999	5 UJ	5 U	5 U	5 U	5 U
14-25R	14-25R	5/21/1999	3.9	1.2 J	1.4 J	0.4 J	5 U
14-25R	14-25	8/18/1999	5 U	5 U	5 U	5 U	5 U
14-25R	DUP-1	2/3/2000 (Duplicate)	415.8	0.66 U	3.0 J	98	310
14-25R	14-25R-TR	8/3/2000	194	1 U	1 U	-	1 U
14-25R	FD2-TR-080300	8/3/2000 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
14-25R	FD6-TR-022301	2/23/2001 (Duplicate)	391106.8	0.15 U	6.8	320000	66000
14-25R	FD4	8/13/2001 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
14-25R	14-25	8/13/2001	5 U	5 U	5 U	5 U	5 U
14-25R	14-25R	1/29/2002	2.1	0.9 J	0.4 J	5 U	5 U
14-25R	14-25R	5/4/2002	8.3	5 U	5 U	4.5 J	3.8 J
14-25R	14-25R-TR-050402	5/4/2002	5 U	5 U	5 U	5 U	5 U
14-25R	14-25R-TR-081302	8/13/2002	17.1	5 U	5 U	5 U	3.1 J
14-25R	14-25R-DC-110702	11/7/2002	1.02	0.50 U	0.11 J	0.32 J	0.50 U
14-25R	FD1-0203	2/4/2003 (Duplicate)	263367.1	0.15 U	7.1	32000	230000
14-25R	14-25R-0203	2/4/2003	5 U	5 U	5 U	5 U	5 U
14-25R	14-25R-0503	5/6/2003	9.3	5 U	5 U	5 U	5 U
14-25R	14-25-03	8/15/2003	5 U	5 U	5 U	5 U	5 U
14-25R	14-25-083	8/15/2003	5 U	5 U	5 U	5 U	5 U
14-25R	14-25R-0204	2/10/2004	4.1	5 U	5 U	5 U	5 U
14-25R	14-25R-0504	5/12/2004	15	5 U	5 U	5 U	5 U
14-25R	GW-14-25R-0604	6/1/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
14-25R	14-25R-0804	8/17/2004	0.149	0.082 J	0.067 J	0.062 U	0.14 U
14-25R	14-25R-1104	11/12/2004	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
14-25R	14-25R-0205	2/8/2005	5 U	5 U	5 U	5 U	5 U
14-25R	14-25R-0505	5/11/2005	19.5	2 U	2 U	2 U	2 U
14-25R	GW-112105-14-25R-001	11/21/2005	138740	0.15 U	890	100000	25000
14-25R	GW-071106-TR-14-25R	7/11/2006	9.1	0.144 U	0.126 U	6.69	2.41
14-50	14-50	1/1/1987	5 U	5 U	5 U	5 U	5 U
14-50	14-50	11/11/1988	32	5 U	5 U	5 U	5 U
14-50	14-50	1/23/1989	36.5	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

14-50	14-50	1/24/1989	34	5 U	5 U	5 U	5 U
14-50	14-50	5/14/1993	33.8	5 U	13	5.5	5 U
14-50	14-50	5/18/1993	24 J	5 U	5 U	5 U	5 U
14-50	14-50	5/25/1993	155.7	18	60	28	14
14-50	14-50	6/2/1993	22	5 U	5 U	5 U	5 U
14-50	14-50	11/23/1997	5.6	5 U	5.6	5 U	5 U
14-50	14-50	2/3/1998	24.5	5 U	6.6	2.6 J	5 U
14-50	14-50	5/7/1998	27	5 U	17	10	5 U
14-50R	14-50	8/20/1998	14.6	3.4 J	5.7	5 U	5 U
14-50R	14-50R	11/8/1998	14.43	0.066 U	0.40 J	0.39 J	0.64 J
14-50R	14-50R	5/1/1999	5.8	2.0 U	2.0 U	2.0 U	2.0 U
14-50R	14-50R	5/21/1999	3 U	1 U	1 U	-	1 U
14-50R	14-50R-TR	8/10/2000	8	5 U	5 U	5 U	5 U
14-50R	FD8-TR-081000	8/10/2000 (Duplicate)	720.292	0.06 U	0.08 U	10.4	707
14-50R	14-50R	10/8/2000	5 U	5 U	5 U	5 U	5 U
14-50R	14-50R-TR-022301	2/23/2001	16	5 U	5 U	5 U	5 U
14-50R	14-50R-TR-081301	8/13/2001	0.073	0.066 U	0.073 J	0.062 U	0.14 U
14-50R	FD3	8/13/2001 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
14-50R	14-50R-TR-012902	1/29/2002	8.1	5 U	5 U	5 U	5 U
14-50R	FD2-TR-050402	5/4/2002 (Duplicate)	1.1985	0.0775 J	0.02 U	0.234 J	0.887
14-50R	14-50R-TR-050402	5/4/2002	6.9	2 U	2.6	2.1	2 U
14-50R	14-50R	5/4/2002	5 U	5 U	5 U	5 U	5 U
14-50R	FD2-DC-110702	11/7/2002 (Duplicate)	3.50 U	1.50 U	1.60 U	1.60 U	2.30 U
14-50R	14-50R-DC-110702	11/7/2002	5 U	5 U	5 U	5 U	5 U
14-50R	14-50R-0203	2/4/2003	5 U	5 U	5 U	5 U	5 U
14-50R	14-50R-0503	5/6/2003	10.2	5 U	6.5	5 U	5 U
14-50R	14-50-0803	8/15/2003	19.7	1.7 J	6.9	1.8 J	2 U
14-50R	14-50R-1103	11/19/2003	74.2	13	53	8.2	5 U
14-50R	14-50R-0204	2/10/2004	5.8	5 U	5 U	5 U	5 U
14-50R	14-50R-0504	5/12/2004	5 UJ	5 U	5 U	5 U	5 U
14-50R	GW-14-50R-0604	6/1/2004	508	0.15 U	0.16 U	28	480
14-50R	14-50R-0804	8/17/2004	5 U	5 U	5 U	5 U	5 U
14-50R	14-50R-1104	11/12/2004	4.8	5 U	5 U	5 U	5 U
14-50R	14-50R-0505	5/11/2005	1.4	5 U	1.0 J	5 U	5 U
14-50R	GW-112105-14-50R-002	11/21/2005	1290.3	0.15 U	8.7	880	300
14-50R	GW-112105-14-50R-001	11/21/2005	53559	0.15 U	210	31000	18000
14-50R	GW-071106-TR-14-50R	7/11/2006	9.29	0.144 U	0.126 U	6.81	2.48
15-120	15-120	9/9/1997	3 U	1 U	1 U	-	1 U
15-120	15-120	11/25/1997	84	5 U	5 U	53	31
15-120	15-120	11/16/1998	1.63	0.50 U	0.50 U	0.35 J	1.2
15-120	15-120	2/4/1999	3 U	1 U	1 U	-	1 U
15-120	15-120	5/21/1999	5 U	5 U	5 U	5 U	5 U
15-120	15-120	2/11/2000	1.29	0.50 U	0.50 U	0.50 U	1.2
15-120	15-120-TR-081901	8/19/2001	57600	2500 U	2500 U	1600 J	51000
15-120	15-120	8/19/2001	3 U	1 U	1 U	-	1 U
15-120	15-120-0503	5/13/2003	1.19	0.50 U	0.20 J	0.30 J	0.27 J
15-120	15-120-0803	8/20/2003	1203450	110000	790000	-	150
15-120	FD8-0803	8/20/2003 (Duplicate)	15.56 J	1.5 J	0.86 J	7.4	5.8
15-120	15-120-1103	11/19/2003	127	18	53	-	5 U
15-120	GW-020304-TR-15-120	2/3/2004	1371	13 U	13 U	3.0 J	13 U
15-120	15-120-0504	5/13/2004	44107	30000	14000	-	1 U
15-120	15-120-0804	8/19/2004	300.2	10 U	10 U	14	280
15-120	15-120-0505	5/11/2005	177700	170000	5600	2500 U	2500 U
15-120	GW-050106-TR-15-120R	5/1/2006	41.7	2 U	3	29	4.2
15-120	WG-081512-TS-15-120-032	8/15/2012	0.3	0.50 U	0.50 U	0.50 U	0.50 U
15-25	15-25	1/1/1987	13057	33 U	28 U	57 J	13000
15-25	15-25	1/24/1989	1277.5	25 U	8.5 J	140	1100
15-25	15-25	5/14/1993	13357	5	160	150	13000 DJ
15-25	15-25	6/2/1993	6060	100 U	100 U	-	5800
15-25	15-25	9/9/1997	100 U	100 U	100 U	100 U	-
15-25	15-25	11/23/1997	120	5 U	5 U	5 U	120
15-25	15-25	2/3/1998	120	5 U	5 U	5 U	120
15-25	15-25	5/7/1998	20	5 U	5 U	20	6700 U
15-25R	15-25	8/13/1998	17230	5 U	60	100	17000 DJ
15-25R	15-25	11/16/1998	14012.5	5 U	5 U	6.8	14000 D
15-25R	15-25R	11/16/1998	40032.6	5.0 U	5.0 U	25	40000 DJ
15-25R	15-25	2/4/1999	13024	5 U	5 U	24	13000 D
15-25R	15-25R	2/4/1999	20031.6	5.0 U	5.0 U	24	20000 DJ
15-25R	15-25R	5/21/1999	24007.9	5.0 U	5.0 U	5.0 U	24000 D
15-25R	15-25R	2/3/2000	26007.3	5.0 U	5.0 U	5.0 U	26000 D
15-25R	15-25R-TR-080300	8/3/2000	4000	50 U	50 U	50 U	4000

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

15-25R	15-25R-TR-022301	2/23/2001	5540	50 U	50 U	140 J	5400
15-25R	15-25R-TR-081401	8/14/2001	3700	50 U	50 U	50 U	3700
15-25R	FD5	8/14/2001	(Duplicate) 0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
15-25R	15-25R-TR-012902	1/29/2002	5800	500 U	500 U	500 U	5800
15-25R	15-25R-TR-050402	5/4/2002	6370	250 U	250 U	570 J	5800 J
15-25R	15-25R-TR-081302	8/13/2002	4100	250 U	250 U	250 U	4100
15-25R	15-25R-DC-110702	11/7/2002	6490	190	50 U	50 U	6300
15-25R	15-25R-0203	2/4/2003	7415	5 U	5 U	5 U	7400 J
15-25R	15-25R-0503	5/6/2003	12007	5 U	5 U	5 U	12000
15-25R	15-25R-1103	11/19/2003	12000	50 U	50 U	50 U	12000
15-25R	GW-020304-TR-15-25	2/3/2004	606.3	13 U	13 U	5.8 J	27
15-25R	15-25R-0204	2/3/2004	8114	5 U	5 U	5 U	8100 J
15-25R	15-25R	2/3/2004	8214	5.0 U	5.0 U	5.0 U	8200
15-25R	FD2-0504~15-25R	5/12/2004	(Duplicate) 43.8	1.50 U	2.8 J	22	19 J
15-25R	FD2-0504	5/12/2004	(Duplicate) 1660.1	1.7 J	59	970	610
15-25R	15-25R-0504	5/12/2004	13007	5 U	5 U	5 U	13000
15-25R	15-25R-0804	8/17/2004	15000	500 U	500 U	500 U	15000
15-25R	15-25R-1104	11/12/2004	12000	500 U	500 U	500 U	12000
15-25R	15-25R-0205	2/9/2005	8212	5 U	5 U	5 U	8200 J
15-25R	FD2-0505	5/12/2005	(Duplicate) 252	1.50 U	12 J	130	110
15-25R	15-25R-0505	5/12/2005	15000	500 U	500 U	500 U	15000
15-25R	GW-041106-TR-15-25R	4/11/2006	250	2 U	2 U	2 U	250
15-25R	GW-071106-TR-15-25R	7/11/2006	16086	28.8 U	25.2 U	15800	32.4 U
15-50	15-50	1/1/1987	3200	50 U	50 U	50 U	3200
15-50	15-50	1/25/1989	3981	50 U	270	54	3600
15-50	15-50	5/18/1993	3795	95	700	100	2900
15-50	15-50	5/25/1993	3680	110	850	120	2600
15-50	15-50	6/2/1993	2100	50 U	50 U	50 U	2100
15-50	15-50	9/9/1997	1500	50 U	50 U	50 U	1500
15-50	15-50	11/23/1997	850	50 U	50 U	50 U	850
15-50	15-50	2/6/1998	420	50 U	50 U	50 U	420
15-50	15-50	5/8/1998	152	10 U	10 U	10 U	140
15-50R	15-50	8/13/1998	45.2	5 U	5 U	5 U	44
15-50R	15-50R	11/16/1998	12	5 U	5 U	5 U	5 U
15-50R	15-50	2/4/1999	12	5 U	5 U	5 U	12
15-50R	15-50R	2/4/1999	5 U	5 U	5 U	5 U	5 U
15-50R	15-50R	5/21/1999	6.88	2.0 J	4.2 J	0.33 J	0.23 U
15-50R	15-50	5/21/1999	5 U	5 U	5 U	5 U	5 U
15-50R	15-50	8/18/1999	(Duplicate) 5 U	5 U	5 U	5 U	5 U
15-50R	15-50	8/14/2001	5 U	5 U	5 U	5 U	5 U
15-50R	15-50R-TR-081401	8/14/2001	552000 D	23000 D	240000 D	29000 D	10000 U,D
15-50R	15-50R-DC-110702	11/7/2002	588000 D	35000 D	250000 D	40000 D	2500 U,D
15-50R	15-50R-0203	2/4/2003	122.75	2.5 U	0.80 J	82	26
15-50R	FD1-0503	5/6/2003	(Duplicate) 323007.6	0.15 U	7.6	170000	150000
15-50R	15-50-0803	8/16/2003	5 U	5 U	5 U	5 U	5 U
15-50R	15-50-083	8/16/2003	5 U	5 U	5 U	5 U	5 U
15-50R	15-50R-1103	11/19/2003	222000 D	14000 D	94000 D	15000 D	10000 U,D
15-50R	GW-020304-TR-15-50	2/3/2004	-	20 U	20 U	-	20 U
15-50R	15-50R-0504	5/12/2004	7046	130 U	28 J	1700	5200
15-50R	15-50R-0804	8/17/2004	553000	36000 DJ	210000 DJ	37000 DJ	20000 U,DJ
15-50R	15-50R-1104	11/12/2004	236000 D	17000 D	100000 D	19000 D	10000 U,D
15-50R	15-50R-0205	2/9/2005	122.85	2.5 U	0.75 J	82	26
15-50R	GW-041106-TR-15-50R	4/11/2006	130.49	0.066 U	0.055 U	0.33 J	130
15-50R	GW-071106-TR-15-50R	7/11/2006	29.855	0.144 U	1.69	27.7	0.162 U
16-25	16-25	1/1/1987	581000	42000	250000	34000	19000
16-25	16-25	11/3/1988	386000 J	40000 J	220000	31000	6000
16-25	16-25	5/14/1993	268460	40000	130000	25000	9000
16-25	16-25	5/14/1993	(Duplicate) 462000	35000 J	210000 J	28000 J	5000 U
16-25	16-25	5/19/1993	464000	37000 J	214000 J	29000 J	5000 U
16-25	16-25	5/25/1993	466000	41000	200000	25000	10000 U
16-25	16-25	6/2/1993	491000	43000	200000	21000	37000 J
16-25	16-25	2/23/1996	449000	36000 J	210000 J	25000 J	5000 U
16-25	16-25	5/13/1996	(Duplicate) 351000	37000	160000	24000	5000 U
16-25	16-25	5/13/1996	483000	45000	230000	28000	5000 U
16-25	16-25	6/18/1996	359000	41000	160000	18000	5000 U
16-25	16-25	7/19/1996	413300	45000	190000	21000	5000 U
16-25	16-25	8/14/1996	407900	42000	190000	17000	5000 U
16-25	16-25	9/24/1996	412700	39000	190000	15000	5000 U
16-25	16-25	11/5/1996	(Duplicate) 294400	38000	130000	17000	6100
16-25	16-25	11/5/1996	322600	42000	130000	15000	5000 U
16-25	16-25	2/5/1997	310900	42000	140000	19000	5700

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

16-25	16-25	5/12/1997	314200	48000	140000	17000	7100
16-25	16-25	8/26/1997	268400	28000	120000	16000	5700
16-25	16-25	11/19/1997	276600	38000	130000	18000	5000
16-25	16-25	2/15/1998	282200	44000	140000	17000 J	6100
16-25	16-25	5/14/1998	285100	41000 J	130000	22000	8700
16-25	16-25	2/5/1999	257200	43000	120000	20000	7200
16-25	16-25	5/17/1999	254100	41000	120000	19000	7100
16-25	16-25	2/1/2000	278300	41000	130000	24000	9300
16-25	16-25-TR-080100	8/1/2000	36	5 U	18	7	11
16-25	16-25-TR-021501	2/15/2001	5 U	5 U	5 U	-	10 U
16-25	16-25-TR-081201	8/12/2001	18	5 U	18	5 U	15 U
16-25	16-25	8/12/2001	266200	42000	130000	23000	7200
16-25	16-25-TR-043002	4/30/2002	22	5 U	16	6	10 U
16-25	16-25-TR-073102	7/31/2002	28	5 U	17	11	10 U
16-25	16-25-DC-110602	11/6/2002	187880	3200	55000	82000	43000
16-25	16-25-0203	2/7/2003	283200	37000	140000	26000	8900
16-25	16-25-0503	5/12/2003	254920	32000	130000	22000	6700
16-25	FD6-0503	5/12/2003 (Duplicate)	0.858 J	0.142 J	0.438 J	0.278 J	0.025 UJ
16-25	16-25-0803	8/14/2003	285200	42000	140000	27000	8800
16-25	FD-4-1103	11/19/2003 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
16-25	FD-01-0204	2/4/2004 (Duplicate)	164307	0.15 U	7	67000	94000
16-25	16-25-0204	2/4/2004	239300	37000	120000	22000	7300
16-25	16-25-0504	5/13/2004	261870	38000	130000	23000	5100
16-25	GW-16-25-TR-0704	7/5/2004	20053.69	0.15 U	0.16 U	53	20000
16-25	16-25-0804	8/14/2004	241020	25000	140000	27000	6300
16-25	16-25-0205	2/10/2005	262770	34000	130000	25000	6200
16-25	16-25-0505	5/10/2005	269100	39000	130000	27000	6900
16-25	GW-040406-TR-16-25	4/4/2006	1300	25 U	25 U	25 U	1300
16-50	16-50	1/1/1987	337	18 J	130 J	51 J	13 J
16-50	16-50	2/1/1987	39.2	5 U	17	9.2	13
16-50	16-50	11/3/1988	40.2	5 U	17	9.2	14
16-50	16-50	5/14/1993	44	5 U	17 J	5 J	22 J
16-50	16-50	5/19/1993	29.3	5 U	5 U	5	9.3
16-50	16-50	6/18/1996	39.3	5.0 U	21	6.3	12
16-50	16-50	7/19/1996	28.9	5.0 U	15	6.6	7.3
16-50	16-50	8/14/1996	45	5.0 U	21	10	14
16-50	16-50	9/24/1996	22	5 U	14 J	8 J	10 U
16-50	16-50	11/5/1996	35	5 U	20	9	6
16-50	16-50	2/5/1997	46	5 U	22	7	17
16-50	16-50	5/12/1997	32	5 U	18	7	7
16-50	16-50	8/12/1997	40	5 U	19	9	12
16-50	16-50	11/19/1997	34	5 U	16	10	8
16-50	16-50	2/15/1998	36	5 U	18	11	7
16-50	16-50	5/14/1998	37	5 U	19	11	7
16-50	16-50	8/17/1998	40	5 U	22	9	9
16-50	16-50	11/7/1998	32	5 U	16	8	8
16-50	16-50	2/5/1999	31	5 U	15	10	6
16-50	16-50	5/17/1999	41	5 U	19	11	11
16-50	16-50	8/17/1999	30	5 U	16	7	7
16-50	16-50	2/1/2000	33	5 U	13	9	11
16-50	16-50-TR-080100	8/1/2000	14.4	5 U	11	5 U	3.4 J
16-50	16-50	8/12/2001	8	5 U	8	5 U	5 U
16-50	16-50-TR-081201	8/12/2001	26.3	5 U	11	5 U	8.3
16-50	16-50	1/23/2002	32	5 U	14	5	13
16-50	16-50-TR-073102	7/31/2002	17.5	5 U	9.7	4.3 J	3.5 J
16-50	16-50-0803	8/14/2003	9	5 U	9	5 U	5 U
16-50	16-50-0204	2/4/2004	9	5 U	7.6	5 U	1.4 J
16-50	GW-16-50-TR-0704	7/5/2004	199.1	0.15 U	0.16 U	9.1	190
16-50	16-50-0804	8/14/2004	10	5 U	10	5 U	5 U
16-50	GW-040406-TR-16-50	4/4/2006	1500	25 U	25 U	25 U	1500
17-24	17-24	1/1/1987	29.9	1.8 J	12 J	3.1 J	13 J
17-24	17-24	1/1/1987 (Duplicate)	35	5 U	13	5 U	22
17-24	17-24	2/1/1987	29.42	3.1 J	15	8.4	1.9 J
17-24	17-24	5/13/1996	20.18	0.50 U	0.20 J	5.5	10
17-24	17-24	8/14/1996	5 U	5 U	5 U	5 U	5 U
17-24	17-24	11/22/1996	5 U	5 U	5 U	5 U	5 U
17-24	17-24	2/7/1997	5 U	5 U	5 U	5 U	5 U
17-24	17-24	8/26/1997	5 U	5 U	5 U	5 U	5 U
17-24	17-24	11/19/1997	5 U	5 U	5 U	5 U	5 U
17-24	17-24	3/2/1998	5 U	5 U	5 U	5 U	5 U
17-24	17-24	5/23/1998	5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

17-24	17-24	8/8/1998	5 U	5 U	5 U	5 U	5 U
17-24	17-24	8/8/1998	(Duplicate) 5 U	5 U	5 U	5 U	5 U
17-24	17-24	11/7/1998	5 U	5 U	5 U	5 U	5 U
17-24	17-24	2/5/1999	5 U	5 U	5 U	5 U	5 U
17-24	17-24	5/17/1999	5 U	5 U	5 U	5 U	5 U
17-24	17-24	8/17/1999	5 U	5 U	5 U	5 U	5 U
17-24	17-24	11/6/1999	5 U	5 U	5 U	5 U	5 U
17-24	17-24	2/5/2000	5 U	5 U	5 U	5 U	5 U
17-24	17-24	5/12/2000	5 U	5 U	5 U	5 U	5 U
17-24	17-24-TR-080100	8/1/2000	5 U	5 U	5 U	5 U	5 U
17-24	17-24	11/13/2000	5 U	5 U	5 U	5 U	5 U
17-24	17-24-TR	11/13/2000	5 U	5 U	5 U	5 U	5 U
17-24	17-24-TR-021801	2/18/2001	10	5 U	5 U	5 U	10
17-24	17-24	8/13/2001	5 U	5 U	5 U	5 U	5 U
17-24	17-24-TR-081301	8/13/2001	5 U	5 U	5 U	5 U	5 U
17-24	17-24-TR-012302	1/23/2002	10	5 U	5 U	5 U	10
17-24	17-24	2/1/2003	12	5 U	5 U	5 U	12
17-24	GW-020304-TR-17-24	2/3/2004	4210	20 U	20 U	-	20 U
17-24	GW-17-24-TR-0704	7/20/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
17-50	17-50	1/1/1987	5 U	5 U	5 U	5 U	5 U
17-50	17-50	2/23/1996	5 UJ	5 U	5 U	5 U	5 U
17-50	17-50	8/14/1996	5 U	5 U	5 U	5 U	5 U
17-50	17-50	2/7/1997	5 UJ	5 U	5 U	5 U	5 U
17-50	17-50	5/14/1997	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
17-50	17-50	8/27/1997	19	5 U	5 U	5 U	5 U
17-50	17-50	11/23/1997	104.9	31	69	5 U	5 U
17-50	17-50	2/3/1998	5 U	5 U	5 U	5 U	5 U
17-50	17-50	5/8/1998	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
17-50	GW-070609-TG-MW17-50-GW	7/6/2009	0.1991	0.0578 U	0.109 J	0.0901 J	0.0604 U
17-50R	17-50R	8/19/1998	5 U	5 U	5 U	5 U	5 U
17-50R	17-50R	11/7/1998	5 U	5 U	5 U	5 U	5 U
17-50R	17-50R	2/5/1999	5 U	5 U	5 U	5 U	5 U
17-50R	17-50R	5/17/1999	5 U	5 U	5 U	5 U	5 U
17-50R	17-50R	8/17/1999	5 U	5 U	5 U	5 U	5 U
17-50R	17-50R	11/6/1999	7.7	5 U	5 U	5 U	5 U
17-50R	17-50R	2/5/2000	5 U	5 U	5 U	5 U	5 U
17-50R	17-50R	5/12/2000	2.5	2 U	2 U	2 U	2 U
17-50R	17-50R-TR-080100	8/1/2000	5 U	5 U	5 U	5 U	10 U
17-50R	17-50R	11/13/2000	0.26	0.066 U	0.055 U	0.26 J	0.14 U
17-50R	17-50R-TR	11/13/2000	0.69	0.50 U	0.50 U	0.69	0.50 U
17-50R	17-50R-TR-021801	2/18/2001	22	5 U	5 U	-	22
17-50R	17-50R-TR-051901	5/19/2001	5 U	5 U	5 U	5 U	10 U
17-50R	17-50R-TR-081301	8/13/2001	5 U	5 U	5 U	5 U	10 U
17-50R	17-50R	2/1/2003	0.52	2.0 U	2.0 U	0.52 J	2.0 U
17-50R	GW-020304-TR-17-50	2/3/2004	-	20 U	20 U	-	20 U
17-50R	GW-17-50R-0604	6/1/2004	122.34	0.015 U	0.02 U	1.15	121
17-50R	GW-17-50R-TR-0704	7/5/2004	0.245 J	0.015 U	0.02 U	0.015 U	0.245
17-50R	GW-040406-TR-17-50R	4/4/2006	3200	50 U	50 U	50 U	3200
17C-25	WG-080612-AMK-FD02-299	8/6/2012	(Duplicate) 0.95	2.5 U	2.5 U	2.5 U	2.5 U
17C-25	WG-080612-AMK-17C-25-033	8/6/2012	132.7	0.33 U	0.28 U	2.7 J	130
18-25	18-25	11/1/1988	10	5 U	5 U	5 U	10
18-25	18-25	2/26/1996	5 U	5 U	5 U	5 U	10 U
18-25	18-25	5/14/1996	5 U	5 U	5 U	5 U	10 U
18-25	18-25	8/15/1996	6	5 U	5 U	6	10 U
18-25	18-25	11/22/1996	5 U	5 U	5 U	5 U	10 U
18-25	18-25	2/18/1997	5 U	5 U	5 U	5 U	10 U
18-25	18-25	5/20/1997	5.0 U	5 U	5 U	5 U	5.0 U
18-25	18-25	8/26/1997	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
18-25	18-25	11/19/1997	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
18-25	18-25	2/26/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
18-25	18-25	5/15/1998	3.1	5.0 U	5.0 U	5.0 U	5.0 U
18-25	18-25	8/17/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
18-25	18-25	11/8/1998	5 U	5 U	5 U	5 U	5 U
18-25	18-25	2/5/1999	5 U	5 U	5 U	5 U	10 U
18-25	18-25	2/6/1999	5 U	5 U	5 U	5 U	5 U
18-25	18-25	2/6/1999	(Duplicate) 5 U	5 U	5 U	5 U	5 U
18-25	18-25	5/21/1999	5 U	5 U	5 U	5 U	5 U
18-25	18-25	8/17/1999	5 U	5 U	5 U	5 U	5 U
18-25	18-25	11/4/1999	5 U	5 U	5 U	5 U	5 U
18-25	18-25	2/5/2000	5 U	5 U	5 U	5 U	5 U
18-25	18-25-TR-080200	8/2/2000	8	5 U	5 U	5 U	8

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

18-25	18-25	11/11/2000	5 U	5 U	5 U	5 U	5 U
18-25	18-25-TR	11/11/2000	5 U	5 U	5 U	5 U	5 U
18-25	18-25-TR-021801	2/18/2001	5 U	5 U	5 U	5 U	5 U
18-25	18-25-TR-051701	5/17/2001	5 U	5 U	5 U	5 U	5 U
18-25	18-25-TR-081301	8/13/2001	8	5 U	5 U	5 U	8
18-25	18-25	8/13/2001	5 U	5 U	5 U	5 U	5 U
18-25	18-25	1/23/2002	5 U	5 U	5 U	5 U	5 U
18-25	18-25-TR-012302	1/23/2002	5 U	5 U	5 U	5 U	5 U
18-25	18-25	2/1/2003	5 U	5 U	5 U	5 U	5 U
18-25	GW-041706-TR-18-25	4/17/2006	5.00 U	1.00 U	1.00 U	1.00 U	1.00 U
18-25	GW-021208-MM-FD1	12/2/2008 (Duplicate)	12.23	0.50 U	0.50 U	0.50 U	0.50 U
18-25	GW-021208-MM-18-25	12/2/2008	50 U	1.0 U	1.0 U	1.0 U	1.0 U
18-25	GW-120111-AK-18-25	12/1/2011	19.44 J	0.15 U	0.54 J	6.9	12
18-25	WG-081312-JN-18-25-039	8/13/2012	3.28	0.68	0.72	1.8	0.50 U
18-50	18-50	11/1/1988	8	5 U	5 U	5 U	8
18-50	18-50	2/26/1996	5 U	5 U	5 U	5 U	5 U
18-50	18-50	5/15/1996	5 U	5 U	5 U	5 U	5 U
18-50	18-50	8/27/1996	5 U	5 U	5 U	5 U	5 U
18-50	18-50	11/25/1996	5 U	5 U	5 U	5 U	5 U
18-50	18-50	2/18/1997	5 U	5 U	5 U	5 U	5 U
18-50	18-50	5/22/1997	5 U	5 U	5 U	5 U	5 U
18-50	18-50	8/26/1997	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	11/19/1997	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	8/17/1998	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	11/8/1998 (Duplicate)	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	2/6/1999	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
18-50R	18-50R	5/21/1999	18	5 U	5 U	5 U	5 U
18-50R	18-50R	8/17/1999	23.5	7.4	13	5 U	5 U
18-50R	18-50R	11/4/1999	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	2/5/2000	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	5/12/2000	11	5 U	5 U	5 U	5 U
18-50R	18-50R-TR-080200	8/2/2000	6385	250 U	250 U	250 U	6200
18-50R	18-50R-TR	11/11/2000	15.11	0.50 U	0.50 U	0.50 U	13
18-50R	18-50R	11/11/2000	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	8/13/2001	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R-TR-012302	1/23/2002	7974	6.6 U	5.5 U	2600	5300
18-50R	18-50R	1/23/2002	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R	4/30/2002	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R-DC-110602	11/6/2002	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
18-50R	18-50R-0203	2/7/2003	4.2	5 U	5 U	5 U	5 U
18-50R	18-50-0503	5/12/2003	5 U	5 U	5 U	5 U	5 U
18-50R	18-50-0803	8/14/2003	5 U	5 U	5 U	5 U	5 U
18-50R	FD1-1103	11/14/2003 (Duplicate)	74.3	0.15 U	1.1 J	60	3.4
18-50R	18-50R-0204	2/4/2004	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R-0504	5/13/2004	5 U	5 U	5 U	5 U	5 U
18-50R	18-50R-0804	8/14/2004	0.18	0.066 U	0.055 U	0.062 U	0.18 J
18-50R	18-50R-1104	11/9/2004	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
18-50R	18-50R-0205	2/10/2005	6.4	5 U	5 U	5 U	5 U
18-50R	18-50R-0505	5/11/2005	2 U	2 U	2 U	2 U	2 U
18-50R	WG-081512-TS-18-50R-040	8/15/2012	20	0.50 U	0.50 U	0.50 U	0.50 U
19-25	19-25	11/4/1988	5 U	5 U	5 U	-	10 U
19-25	19-25	5/14/1993	5 U	5 U	5 U	5 U	5 U
19-25	19-25	5/19/1993	5 U	5 U	5 U	5 U	10 U
19-25	19-25	5/25/1993	5 U	5 U	5 U	5 U	10 U
19-25	19-25	6/2/1993	5 U	5 U	5 U	5 U	10 U
19-25	19-25	2/26/1996	5 U	5 U	5 U	5 U	10 U
19-25	19-25	2/26/1996 (Duplicate)	5 U	5 U	5 U	5 U	10 U
19-25	19-25	5/15/1996	5 U	5 U	5 U	5 U	10 U
19-25	19-25	8/15/1996	5 U	5 U	5 U	5 U	10 U
19-25	19-25	11/8/1996	5 U	5 U	5 U	-	10 U
19-25	19-25	2/6/1997	66	5 U	48	7	10 U
19-25	19-25	5/13/1997	5 U	5 U	5 U	5 U	10 U
19-25	19-25	5/13/1997 (Duplicate)	5 U	5 U	5 U	5 U	10 U
19-25	19-25	8/27/1997	5.0 U	5 U	5 U	5 U	5.0 U
19-25	19-25	8/27/1997 (Duplicate)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
19-25	19-25	11/19/1997	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
19-25	19-25	11/19/1997 (Duplicate)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
19-25	19-25	3/2/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
19-25	19-25	5/15/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
19-25	19-25	8/17/1998	5 U	5 U	5 U	5 U	5 U
19-25	19-25	2/5/1999	5 U	5 U	5 U	5 U	10 U



**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

19-25	19-25	2/5/1999	(Duplicate)	5 U	5 U	5 U	5 U	5 U
19-25	19-25	8/17/1999		5 U	5 U	5 U	5 U	5 U
19-25	19-25	2/1/2000		5 U	5 U	5 U	5 U	5 U
19-25	19-25-TR-080100	8/1/2000		5 U	5 U	5 U	5 U	5 U
19-25	19-25-TR-021501	2/15/2001		5 U	5 U	5 U	5 U	5 U
19-25	19-25	8/12/2001		5 U	5 U	5 U	5 U	5 U
19-25	19-25-TR-081201	8/12/2001		5 U	5 U	5 U	5 U	5 U
19-25	19-25	1/23/2002		5 U	5 U	5 U	5 U	5 U
19-25	19-25-TR-012302	1/23/2002		5 U	5 U	5 U	5 U	5 U
19-25	19-25-TR-073102	7/31/2002		5 U	5 U	5 U	5 U	5 U
19-25	19-25-0203	2/7/2003		5 U	5 U	5 U	5 U	5 U
19-25	19-25-0803	8/14/2003		5 U	5 U	5 U	5 U	5 U
19-25	19-25-0204	2/4/2004		5 U	5 U	5 U	5 U	5 U
19-25	19-25-0804	8/13/2004		5 U	5 U	5 U	5 U	5 U
19-25	19-25-0205	2/9/2005		5 U	5 U	5 U	5 U	5 U
19-25	GW-040606-TR-19-25	4/6/2006		9800	50 U	50 U	2000	7800
19-25	GW-071006-TR-19-25	7/10/2006		0.446	0.0578 U	0.2 J	0.246 J	0.0604 U
19-25	GW-051208-MM-19-25	12/5/2008		13 J	5 U	5 U	5 U	5 U
19-25	GW-072710-CM-FD-010	7/27/2010	(Duplicate)	305.125 J	31.4	7.86	242 J	19.8 J
19-25	GW-072710-CM-19-25	7/27/2010		3776.176 J	349 J	40.4 J	550 J	2830 J
19-50	19-50	11/4/1988		5 U	5 U	5 U	5 U	5 U
19-50	19-50	5/14/1993		5 U	5 U	5 U	5 U	5 U
19-50	19-50	5/14/1993	(Duplicate)	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
19-50	19-50	5/18/1993		5 U	5 U	5 U	5 U	5 U
19-50	19-50	5/25/1993		5 U	5 U	5 U	5 U	5 U
19-50	19-50	6/2/1993		5 U	5 U	5 U	5 U	5 U
19-50	19-50	2/26/1996		5 U	5 U	5 U	5 U	5 U
19-50	19-50	5/15/1996		5 U	5 U	5 U	5 U	5 U
19-50	19-50	8/15/1996		5 U	5 U	5 U	5 U	5 U
19-50	19-50	2/6/1997		5 U	5 U	5 U	5 U	5 U
19-50	19-50	5/14/1997		5 U	5 U	5 U	5 U	5 U
19-50	19-50	8/27/1997		5 U	5 U	5 U	5 U	5 U
19-50	19-50	5/8/1998		5 U	5 U	5 U	5 U	5 U
19-50	GW-021209-TG-MW19-GW	2/12/2009		25	1.0 U	1.0 U	1.0 U	1.0 U
19-50	GW-070609-TG-MW19-GW	7/6/2009		2.64 J	14.4 UJ	0.126 UJ	1.14 J	1.5 J
19-50R	19-50R	8/19/1998		15.8	3.0 J	6.1	5 U	5 U
19-50R	19-50R	8/19/1998	(Duplicate)	5 UJ	5 U	5 U	5 U	5 U
19-50R	19-50R	2/5/1999		5 U	5 U	5 U	5 U	5 U
19-50R	19-50R	2/1/2000		5 U	5 U	5 U	5 U	5 U
19-50R	19-50R-TR-080100	8/1/2000		2.734	0.97 J	1.6	0.079 J	0.14 U
19-50R	19-50R-TR-021501	2/15/2001		1.8	2 U	2 U	2 U	2 U
19-50R	19-50R	8/12/2001		5 U	5 U	5 U	5 U	5 U
19-50R	19-50R	1/23/2002		3.7	5 U	5 U	5 U	5 U
19-50R	19-50R-TR-012302	1/23/2002		5 U	5 U	5 U	5 U	5 U
19-50R	19-50R-TR-073102	7/31/2002		2.421	0.85 J	1.5	0.062 U	0.14 U
19-50R	19-50R-0203	2/7/2003		5 U	5 U	5 U	5 U	5 U
19-50R	19-50R-0803	8/14/2003		16	5 U	5 U	5 U	5 U
19-50R	19-50R-0204	2/4/2004		6.4	5 U	5 U	5 U	5 U
19-50R	GW-071006-TR-19-50R	7/10/2006		0.835	0.0578 U	0.336 J	0.499 J	0.0604 U
20-25	20-25	11/14/1988		0.12	0.50 U	0.50 U	0.50 U	0.50 U
20-25	20-25	2/3/1997		83.1	0.066 U	0.055 U	1.1	82
20-25	20-25	11/18/1997		9.71	0.50 U	0.50 U	0.54	9.1
20-50	20-50	5/10/1996		0.17	0.066 U	0.055 U	0.062 U	0.17 J
20-50	20-50	7/18/1996		11.46	11	0.40 J	0.50 U	0.50 U
20-50	20-50	8/12/1996		155	120	32	-	2 U
20-50	20-50	2/3/1997		15700	1200	11000	-	1000 U
2-100	2-100	5/25/1993		18082	33 U	28 U	82 J	18000
2-100	2-100	6/2/1993		10050	8900	1100	-	-
2-100	2-100	8/12/1998		10900	710	8900	-	500 U
2-100	2-100-TR-022401	2/24/2001		15580	3100	3300	5700	3300
2-100	2-100-0204	2/10/2004		9300	1800	1200	4300	2000
2-100	GW-042406-LH-2-100	4/24/2006		31610	3900	12000	14000	1200
2-100	GW-071706-ZF-2-100	7/17/2006		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
21-25	21-25	11/14/1988		4700	680	2400	120	1500
21-25	21-25	1/24/1989		6420	400	120	2100	3800
21-25	21-25	2/16/1996		5540	50 U	140	1300	4100
21-25	21-25	8/16/1996		1070	50 U	50 U	210	860
21-25	21-25	2/4/1997		1180	50 U	50	210	920
21-25	21-25	5/9/1997		2210	50 U	50 U	510	1700
21-25	21-25	11/18/1997		3510	50 U	50 U	410	3100
21-25	21-25	2/4/1998		3620	50 U	50 U	420	3200

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

21-25	21-25	3/1/1998	3920	50 U	50 U	320 J	3600 J
21-25	21-25	4/1/1998	3720	50 U	50 U	320 J	3400 J
21-25	21-25	5/7/1998	5180	32 U	20 U	480	4700
21-25R	21-25	7/1/1998	6110	32 U	20 U	610	5500
21-25R	21-25R	8/19/1998	3266.4	5 U	6.8	240	3000
21-25R	21-25R	8/19/1998	4895.2	3.2 J	12	860	4000
21-25R	21-25	9/1/1998	5200	50 U	50 U	1000	4200
21-25R	21-25	10/1/1998	5200	500 U	500 U	1000	4200
21-25R	21-25	11/10/1998	5200 J	100 U	100 U	1700	3500
21-25R	21-25	1/1/1999	5090	100 U	100 U	1600	3300
21-25R	21-25R	2/5/1999	3253.2	5 U	5.3	230	3000
21-25R	21-25	5/1/1999	3895.8	3.8 J	16	260	3600
21-25R	21-25R	8/17/1999	1668.8	12.5 U	12.5 U	160	1500
21-25R	21-25	2/1/2000	2857.1	5 U	5.1	340 J	2500
21-25R	21-25R	2/4/2000	4615.6	4.8 J	8	390	4200 J
21-25R	FD1-TR-080300	8/3/2000	38.1	0.15 U	0.16 U	12	18
21-25R	21-25R-TR-08030	8/3/2000	72.8	5 U	5 U	3.8 J	50
21-25R	21-25-TR-021501	2/15/2001	41.2	2 U	2 U	9.5	30
21-25R	FD2-TR-021501	2/15/2001	242	1.50 U	20	140	80
21-25R	21-25R-TR-081401	8/14/2001	34	5 U	5 U	5 U	34
21-25R	21-25R-TR-012202	1/22/2002	143.9 J	0.26 U	2	-	140
21-25R	21-25R	1/22/2002	1467 J	50 UJ	50 UJ	67 J	1400 J
21-25R	FD1-TR-073102	7/31/2002	149.5	0.15 U	8.5	69	61
21-25R	21-25R-TR-073102	7/31/2002	620.6	5 U	2.8 J	92	510
21-25R	21-25R	2/1/2003	670	25 U	25 U	25 U	670
21-25R	21-25R-0203	2/9/2003	135.6	5 U	5 U	12	120
21-25R	FD5-0203	2/9/2003	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
21-25R	21-25-0803	8/14/2003	8834	15 J	19 J	1300	7500
21-25R	21-25R-0204	2/5/2004	133.46 J	0.26 U	1.4	-	130
21-25R	GW-041906-TS-21-25R	4/19/2006	1.48 J	0.066 U	0.055 UJ	0.18 J	1.3
21-25R	GW-071506-TR-21-25R	7/15/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
21-48	21-48	1/24/1989	831.948 J	0.348 J	6.2 J	183 J	637 J
21-48	21-48	2/22/1996	785.3	1.3 U	1.7 J	110	670
21-48	21-48	8/16/1996	1420	25 U	25 U	310	1100
21-48	21-48	11/11/1996	6201	1400	4300	-	-
21-48	21-48	5/9/1997	28320	2100	8600	-	500 U
21-48	21-48	8/28/1997	200 U	-	-	-	-
21-48	21-48	5/14/1998	21450	250 U	4200	17000	250 U
21-48	21-48	6/1/1998	7570	250 U	870	6700	250 U
21-48	21-48	7/1/1998	23460	100 U	2900	20000	200
21-48	21-48	8/13/1998	30090	1000	9500	19000	310
21-48	21-48	9/1/1998	30090	790	10000	19000	300
21-48	21-48	10/1/1998	29700	330	9000	20000	370
21-48	21-48	11/10/1998	4030	330	1500	2200	250 U
21-48	21-48	1/1/1999	20060	250 U	4800	15000	260
21-48	21-48	2/1/1999	19106	76	5300 J	13000 J	330
21-48	21-48	2/6/1999	26290	250 U	3000	23000	290
21-48	21-48	5/20/1999	17500	250 U	2500	15000	250 U
21-48	21-48	2/4/2000	30300	160 U	1100	29000	200
21-48	21-48-TR-081501	8/15/2001	17598.8	8.8	88	17000	290
21-48	21-48	8/15/2001	27000	160 U	1000	26000	160 U
21-48	21-48-TR-012202	1/22/2002	6900	250 U	250 U	6900	250 U
21-48	21-48-TR-080402	8/4/2002	12567	50 U	91 J	12000 J	320 J
21-48	21-48-0803	8/16/2003	6600	250 U	250 U	6600	250 U
21-48	21-48-0204	2/17/2004	7730	250 U	330	7400	250 U
21-48	GW-071106-TR-21-48	7/11/2006	14.432	0.144 U	1.21	13	0.162 U
2-166	2-166	11/11/1988	17429.3	9.3	91	17000	260
2-166	2-166	1/17/1989	4800	250 U	250 U	4800	250 U
2-166	2-166	5/14/1993	5049	50 U	64	4700	250
2-166	2-166	5/14/1993	9929	50 U	26 J	9500	250
2-166	2-166	5/17/1993	5597	50 U	71	5200	290
2-166	2-166	5/25/1993	14349	25 U	37	14000	190
2-166	2-166	6/2/1993	13246	12.5 U	35	13000 J	120
21C-130	GW-062113-LP-21C-130-02	6/21/2013	3400	1000 U	3400	1000 U	1000 U
22-25	22-25	11/14/1988	10099 J	125 UJ	125 UJ	9800 J	230 J
22-25	22-25	1/24/1989	12468	100 U	100 U	12000	210
22-25	22-25	5/14/1993	15569	50 U	29 J	13000	120
22-25	22-25	5/18/1993	11296	10 U	28	11000	170
22-25	22-25	5/26/1993	475 J	13 U	28 J	-	170
22-25	22-25	6/2/1993	11421	100 U	100 U	11000	250
22-25R	22-25R	2/27/1996	8095.5 J	64 J	88.3 J	7730 J	151 J

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

22-25R	22-25R	5/10/1996	8386.5 J	66.8 J	86.5 J	8010 J	160 J
22-25R	22-25R	8/16/1996	5574	74 J	28 U	5500	69 U
22-25R	22-25R	2/5/1997	8681	130 U	130 U	7400	1200
22-25R	22-25R	5/12/1997	145	69	34	-	-
22-25R	22-25R	2/10/1998	5 U	5 U	5 U	-	10 U
22-25R	22-25R	2/5/2000	5 U	5 U	5 U	5 U	5 U
22-25R	22-25-TR-021501	2/15/2001	120	5 U	5 U	9 J	100 J
22-25R	22-25-DC-021501	2/15/2001	2060.4	3.0 J	20	2000	14
22-25R	22-25R-TR-081401	8/14/2001	106	5 U	5 U	12	78
22-25R	22-25R	8/14/2001	5 U	5 U	5 U	5 U	5 U
22-25R	22-25R	1/28/2002	5 U	5 U	5 U	5 U	5 U
22-25R	22-25R-TR-080102	8/1/2002	107	5 U	5 U	11	79
22-25R	22-25R-0203	2/8/2003	153	5 U	5	21	100
22-25R	22-25-0803	8/14/2003	15207	100 U	100 U	15000	150
22-25R	22-25R-0204	2/5/2004	125	5 U	6	18	85
22-25R	22-25R-0804	8/14/2004	121	5 U	5 U	15	85
22-25R	GW-041306-TS-22-25R	4/13/2006	1176.3	12.5 U	12.5 U	6.3 J	960 J
22-50	22-50	11/14/1988	144.4	5 U	2.9 J	7.5	120
22-50	22-50	1/24/1989	92.8	5 U	5 U	9.8	72
22-50	22-50	5/14/1993	88.7	5 U	5 U	5.7	73
22-50	22-50	5/14/1993 (Duplicate)	105	5 U	5 U	10	81
22-50	22-50	5/26/1993	108	5 U	5 U	10	83
22-50	22-50	6/2/1993	142.9	5 U	2.3 J	8.6	120
22-50R	22-50R	2/27/1996	100.1	5 U	5 U	7.8	83
22-50	22-50R	8/16/1996	82.8	5 U	5 U	6.9	53
22-50	22-50R	2/5/1997	89.5	5 U	5 U	2.5 J	74
22-50	22-50R	5/12/1997	124.4	5 U	5 U	8.4	87
22-50	22-50R	8/12/1997	84.2	5 U	5 U	6.3	69
22-50	22-50R	11/22/1997	75.7	1.9 J	2.5	6.4	55
22-50	22-50R	2/10/1998	76.9	1.5 J	2.4	7.6	55
22-50	22-50R	5/14/1998	77.19	0.10 J	2.3	9.2	56
22-50	22-50R	2/5/1999	2.5	1.3	1.0 U	-	-
22-50	22-50	2/5/1999	110	5 U	5 U	5 U	110
22-50	22-50R	8/20/1999	5 U	5 U	5 U	-	10 U
22-50	DUP-3	2/5/2000 (Duplicate)	1.1	0.15 U	0.16 U	1.1	0.23 U
22-50	22-50	2/5/2000	99.2	5 U	5 U	9.2	78
22-50	FD4-TR-080700	8/7/2000 (Duplicate)	0.109	0.015 U	0.02 U	0.015 U	0.025 U
22-50	22-50	8/15/2001	72	5 U	5 U	5.5	57
22-50	22-50-TR-081501	8/15/2001	5 U	5 U	5 U	5 U	5 U
22-50	22-50	1/28/2002	79.3	5 U	5 U	5 U	67
22-50	22-50-0203	2/11/2003	24.6 J	5 UJ	5.3 J	14 J	5 UJ
22-50	FD3-0803	8/16/2003 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
22-50	22-50-0204	2/17/2004	99.7	5 U	5 U	5.7	84
22-50	WG-081712-TS-22-50-048	8/17/2012	48.79	0.50 U	0.50 U	30	0.46 J
22-70	22-70	2/27/1996	5	5 U	5	5 U	5 U
22-70	22-70	5/10/1996	17	5 U	11	6	5 U
22-70	22-70	8/12/1996	5	5 U	5 J	5 U	5 U
22-70	22-70	11/4/1996	5 U	5 U	5 U	5 U	5 U
22-70	22-70	5/12/1997	7	5 U	5 U	7 J	5 U
22-70	22-70	11/22/1997	5 U	5 U	5 U	5 U	5 U
22-70	22-70	2/10/1998	5 U	5 U	5 U	5 U	5 U
22-70	22-70	8/8/1998	5 U	5 U	5 U	5 U	5 U
22-70	22-70	2/5/1999	5 U	16 U	10 U	16 U	16 U
22-70	22-70	8/20/1999	5 U	5 U	5 U	5 U	5 U
22-70	22-70	2/5/2000	5 U	5 U	5 U	5 U	5 U
22-70	22-70-TR-080400	8/4/2000	5 U	5 U	5 U	5 U	5 U
22-70	22-70-TR-022601	2/26/2001	15	5 U	5 U	5 U	5 U
22-70	22-70-TR-081401	8/14/2001	4.3	5 U	5 U	1.3 J	2.4 J
22-70	22-70-TR-012802	1/28/2002	5 U	5 U	5 U	5 U	5 U
22-70	22-70-TR-080102	8/1/2002	5 U	5 U	5 U	5 U	5 U
22-70	22-70-0203	2/8/2003	13	5 U	5 U	5 U	5 U
22-70	FD1-0803	8/14/2003 (Duplicate)	4602	7.50 U	830	3700	11.50 U
22-70	22-70-0803	8/14/2003	5 U	5 U	5 U	5 U	5 U
22-70	22-70-0204	2/5/2004	5	5 U	5 U	5.0 J	5 U
23-25	23-25	2/27/1996	2.7 J	5 UJ	5 UJ	5 UJ	2.7 J
23-25	23-25	5/14/1996	3	5 U	5 U	5 U	3.0 J
23-25	23-25	8/14/1996	2.8	5 U	5 U	5 U	2.8 J
23-25	23-25	8/16/1996	10.4	5 U	5 U	7.4	3.0 J
23-25	23-25	11/5/1996	22.2	5 U	5 U	5 U	3.2 J
23-25	23-25	2/5/1997	14.9	5 U	5 U	5 U	2.9 J
23-25	23-25	5/12/1997	6.1	2 U	2 U	2 U	1.5 J

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

23-25	23-25	8/27/1997	2.22	0.066 U	0.055 U	0.56 J	1.4
23-25	23-25	2/4/1998	2.9	5.0 U	5.0 U	5.0 U	1.2 J
23-25R	23-25R	8/17/1998	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R	11/8/1998	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R	2/5/1999	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R	5/21/1999	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R	8/17/1999	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R	11/4/1999	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R	2/15/2000	35	5 U	9 J	26 J	5 U
23-25R	23-25R	5/11/2000	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R-TR	11/11/2000	5 U	5 U	5 U	5 U	5 U
23-25R	23-25R-TR-021801	2/18/2001	5 U	5 U	5 U	5 U	5 U
23-25R	23-25-TR-051501	5/15/2001	6.2	5 U	3.1 J	3.1 J	5 U
23-25R	23-25R-TR-081301	8/13/2001	15	5 U	5 U	5 U	5 U
23-25R	23-25R	8/13/2001	5 U	5 U	5 U	5 U	5 U
23-25R	23-25-TR-012302	1/23/2002	13	25 U	13 J	25 U	25 U
23-25R	23-25R	1/23/2002	5 U	16 U	10 U	16 U	16 U
23-25R	GW-041006-TS-FD	4/10/2006 (Duplicate)	3410 J	50 U	50 U	110	3300
23-25R	GW-021109-TG-MW23-25R-S	2/11/2009	132.9	5.0 U	5.0 U	5.0 U	5.0 U
23-25R	GW-070609-TG-MW23-25R-S	7/6/2009	1.66 J	1.44 UJ	1.26 UJ	0.154 UJ	1.66 J
23-25R	WG-081712-TS-23-25R-049	8/17/2012	132650	2500 U	12000	100000	17000
23-50	23-50	10/31/1988	5 U	5 U	5 U	5 U	5 U
23-50	23-50	5/13/1993	4.6	5 U	5 U	5 U	5 U
23-50	23-50	5/13/1993 (Duplicate)	34 J	17 J	17 J	5 UJ	5 UJ
23-50	23-50	5/14/1996	8.1	3.7 J	4.4 J	5 U	5 U
23-50	23-50	11/5/1996	5.5 J	5 UJ	5.5 J	5 UJ	5 UJ
23-50	23-50	5/12/1997 (Duplicate)	16.6	3.6 J	13	5 U	5 U
23-50	23-50	5/12/1997	26.5	6.5	20	5 U	5 U
23-50	23-50	8/27/1997 (Duplicate)	21	5 U	5 U	5 U	5 U
23-50	23-50	8/27/1997	25.3	4.0 J	17	4.3 J	5 U
23-50	23-50	11/19/1997	5.4	5 U	5.4	5 U	5 U
23-50	23-50	11/19/1997 (Duplicate)	9.4	2 U	3.6	2 U	2 U
23-50	23-50	2/26/1998	25.7	1.5	9.0 J	11	4.1
23-50	23-50	5/18/1998 (Duplicate)	4.4	5.0 U	3.6 J	5.0 U	5.0 U
23-50	23-50	8/19/1998	7.7	1.0 U	4.9	-	-
23-50	23-50	11/8/1998	41	1 U	1 U	-	1 U
23-50	23-50	5/11/2000	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-080100	8/1/2000	5 U	5 U	5 U	5 U	5 U
23-50	23-50	11/11/2000	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR	11/11/2000	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-021801	2/18/2001	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-051501	5/15/2001	5 U	5 U	5 U	5 U	5 U
23-50	23-50	8/13/2001	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-081301	8/13/2001	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-012302	1/23/2002	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-043002	4/30/2002	5 U	5 U	5 U	5 U	5 U
23-50	23-50-TR-073102	7/31/2002	7	7 J	5 U	5 U	5 U
23-50	23-50-RW-110602	11/6/2002	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0203	2/7/2003	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0503	5/12/2003	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0803	8/14/2003	5 U	5 U	5 U	5 U	5 U
23-50	23-50-1103	11/14/2003	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0204	2/4/2004	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0504	5/12/2004	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0804	8/20/2004	5 U	5 U	5 U	5 U	5 U
23-50	23-50-1104	11/12/2004	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0205	2/18/2005	5 U	5 U	5 U	5 U	5 U
23-50	23-50-0505	5/17/2005	5 U	5 U	5 U	5 U	5 U
24-35	24-35	11/10/1988	5 U	5 U	5 U	5 U	5 U
24-35	24-35	1/18/1989	5 U	5 U	5 U	5 U	5 U
24-35	WG-081512-AMK-24-35-501	8/15/2012	2.77	0.50 U	0.11 J	0.26 J	0.50 U
24-50	WG-081512-AMK-24-50-500	8/15/2012	27.12	0.50 U	0.50 U	0.12 J	0.50 U
25-25	25-25	11/10/1988	5 U	5 U	5 U	5 U	5 U
25-25	25-25	1/18/1989	5 U	5 U	5 U	5 U	5 U
25-25	25-25	2/12/1991	5 U	5 U	5 U	5 U	5 U
25-25	25-25	2/5/1992	5.9	5 U	5 U	5 U	5 U
25-25	25-25	2/5/1993	3	5 U	5 U	3.0 J	5 U
25-25	25-25	2/7/1994	5 U	5 U	5 U	5 U	5 U
25-25	25-25	2/8/1995	2.6	5 U	1.1 J	1.5 J	5 U
25-25	25-25	5/11/1995	5 U	5 U	5 U	5 U	5 U
25-25	25-25	2/13/1996	5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

25-25	25-25	5/17/1996	57	5 U	5 U	5 U	5 U
25-25	25-25	8/22/1996	5 U	5 U	5 U	5 U	5 U
25-25	25-25	8/22/1996 (Duplicate)	5 U	5 U	5 U	5 U	5 U
25-25	25-25	9/26/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
25-25	25-25	11/14/1996	5 U	5 U	5 U	5 U	5 U
25-25	25-25	2/12/1997	17	5 U	5 U	5 U	5 U
25-25	25-25	5/15/1997	5 U	5 U	5 U	5 U	5 U
25-25	25-25	8/26/1997	42	2 U	5.3	2.7	2 U
25-25	25-25	11/5/1997	1.38	0.12 J	0.48 J	0.78 J	0.14 U
25-25	25-25	2/15/1998	5 U	5 U	5 U	-	-
25-25	25-25	8/6/1998	3 U	1 U	1 U	-	1 U
25-25	25-25	11/10/1999	5 U	5 U	5 U	5 U	5 U
25-25	25-25	2/16/2000	5 U	5 U	5 U	5 U	5 U
25-25	25-25	5/13/2000	5 U	5 U	5 U	5 U	5 U
25-25	25-25	5/15/2000	5 U	5 U	5 U	5 U	5 U
25-25	25-25-TR-080600	8/6/2000	5 U	5 U	5 U	5 U	5 U
25-25	25-25	11/14/2000	5 U	5 U	5 U	5 U	5 U
25-25	25-25-TR	11/14/2000	5 U	5 U	5 U	5 U	5 U
25-25	25-25-TR-022501	2/25/2001	5 U	5 U	5 U	5 U	5 U
25-25	25-25-TR-081101	8/11/2001	2.5	5 U	5 U	5 U	5 U
25-25	25-25	8/11/2001	5 U	5 U	5 U	5 U	5 U
25-25	25-25	1/26/2002	5 U	5 U	5 U	5 U	5 U
25-25	25-25-TR-012602	1/26/2002	5 U	5 U	5 U	5 U	5 U
25-25	25-25	5/4/2002	5 U	5 U	5 U	5 U	5 U
25-25	25-25-TR-080402	8/5/2002	5 U	5 U	5 U	5 U	5 U
25-25	25-25-DC-110802	11/8/2002	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0203	2/10/2003	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0503	5/7/2003	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0803	8/17/2003	5 U	5 U	5 U	5 U	5 U
25-25	25-25-1103	11/18/2003	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0204	2/14/2004	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0504	5/13/2004	5 U	5 U	5 U	5 U	5 U
25-25	FD6-0804	8/20/2004 (Duplicate)	1106	0.15 U	0.16 U	3.6 J	1100
25-25	25-25-0804	8/20/2004	5 U	5 U	5 U	5 U	5 U
25-25	25-25-1104	11/13/2004	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0205	2/17/2005	5 U	5 U	5 U	5 U	5 U
25-25	25-25-0505	5/18/2005	5 U	5 U	5 U	5 U	5 U
25-25	GW-041306-TR-FD	4/13/2006 (Duplicate)	420	25 U	25 U	25 U	310
25-25	GW-041306-TR-25-25	4/13/2006	1860	10 U	10 U	920	670
25-50	25-50	11/10/1988	5 U	5 U	5 U	5 U	5 U
25-50	25-50	1/18/1989	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/12/1991	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
25-50	25-50	2/5/1992	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/5/1993	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/7/1994	0.302	0.066 U	0.082 J	0.22 J	0.14 U
25-50	25-50	2/7/1994 (Duplicate)	12.4	1.0 U	6.7	-	-
25-50	25-50	2/8/1996	4	1 U	1 U	-	1 U
25-50	25-50	5/17/1996	5 U	5 U	5 U	5 U	5 U
25-50	25-50	8/26/1996	5 U	5 U	5 U	5 U	5 U
25-50	25-50	9/26/1996	5 U	5 U	5 U	5 U	5 U
25-50	25-50	11/14/1996	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/12/1997	5 U	5 U	5 U	5 U	5 U
25-50	25-50	5/15/1997	5 U	5 U	5 U	5 U	5 U
25-50	25-50	8/26/1997	5 U	5 U	5 U	5 U	5 U
25-50	25-50	11/5/1997	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/15/1998	5 U	5 U	5 U	5 U	5 U
25-50	25-50	5/22/1998	5 U	5 U	5 U	5 U	5 U
25-50	25-50	8/6/1998	5 U	5 U	5 U	5 U	5 U
25-50	25-50	11/14/1998	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/11/1999	5 U	5 U	5 U	5 U	5 U
25-50	25-50	5/20/1999	5 U	5 U	5 U	5 U	5 U
25-50	25-50	8/14/1999	5 U	5 U	5 U	5 U	5 U
25-50	25-50	8/14/1999 (Duplicate)	5 U	5 U	5 U	5 U	5 U
25-50	25-50	11/10/1999	5 U	5 U	5 U	5 U	5 U
25-50	25-50	2/16/2000	5 U	5 U	5 U	5 U	5 U
25-50	25-50	5/13/2000	5 U	5 U	5 U	5 U	5 U
25-50	25-50	5/15/2000	5 U	5 U	5 U	5 U	5 U
25-50	25-50-TR-080600	8/6/2000	5 U	5 U	5 U	5 U	5 U
25-50	FD-2-TR	11/14/2000 (Duplicate)	3.50 U	1.50 U	1.60 U	1.60 U	2.30 U
25-50	25-50-TR	11/14/2000	5 U	5 U	5 U	5 U	5 U
25-50	25-50-TR-022501	2/25/2001	5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

25-50	FD4-TR-051901	5/19/2001	(Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
25-50	25-50-TR-051901	5/19/2001		5 U	5 U	5 U	5 U	5 U
25-50	25-50	8/11/2001		5 U	5 U	5 U	5 U	5 U
25-50	25-50-TR-081101	8/11/2001		5 U	5 U	5 U	5 U	5 U
25-50	25-50	1/26/2002		5 U	5 U	5 U	5 U	5 U
25-50	25-50-TR-012602	1/26/2002		5 U	5 U	5 U	5 U	5 U
25-50	25-50	5/4/2002		5 U	5 U	5 U	5 U	5 U
25-50	25-50-TR-050402	5/4/2002		5 U	5 U	5 U	5 U	5 U
25-50	25-50-TR-080402	8/5/2002		5 U	5 U	5 U	5 U	5 U
25-50	25-50-DC-110802	11/8/2002		5 U	5 U	5 U	5 U	5 U
25-50	25-50-0203	2/10/2003		5 U	5 U	5 U	5 U	5 U
25-50	25-50-0803	8/17/2003		3.2	0.44 J	0.45 J	0.76 J	0.15 J
25-50	25-50-1103	11/18/2003		3 U	1 U	1 U	-	1 U
25-50	25-50-0804	8/20/2004		1.1	1.0 U	1.0 U	-	-
25-50	FD2-1104	11/13/2004	(Duplicate)	2.5	1.50 U	1.60 U	1.60 U	2.5 J
25-50	25-50-1104	11/13/2004		5 U	5 U	5 U	5 U	5 U
25-50	FD-6-0205	2/17/2005	(Duplicate)	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
25-50	25-50-0205	2/17/2005		5 U	5 U	5 U	5 U	5 U
25-50	25-50-0505	5/18/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
25-50	GW-041306-TR-25-50	4/13/2006		1700	10 U	10 U	850 J	580 J
25-50	GW-021309-TG-MW25-GW	2/13/2009		0.35	0.50 U	0.50 U	0.50 U	0.50 U
25-50	GW-070609-TG-MW25-GW	7/6/2009		4.302 J	0.144 UJ	0.132 J	4.17 J	0.162 UJ
25A-25	25A-25	9/26/1996		5 U	5 U	5 U	5 U	5 U
25A-25	25A-25	2/24/1997		6	6	5 U	5 U	5 U
25A-25	25A-25	5/30/1997		5 U	5 U	5 U	5 U	5 U
25A-25	25A-25	8/15/1997		5 U	5 U	5 U	5 U	5 U
25A-25	25A-25	11/26/1997		5 U	5 U	5 U	5 U	5 U
25A-25	25A-25	2/13/1998		5 U	5 U	5 U	5 U	5 U
25A-25	25A-25	5/28/1998		5 U	5 U	5 U	5 U	5 U
25A-25	25A-25	8/19/1998		5 U	5 U	5 U	5 U	5 U
25A-25	GW-041006-TR-25A-25	4/10/2006		1877.8	3.3 U	11 J	260	1600
25A-50	25A-50	9/26/1996		5 U	5 U	5 U	5 U	5 U
25A-50	25A-50	2/24/1997		5 U	5 U	5 U	5 U	5 U
25A-50	25A-50	8/15/1997		5 U	5 U	5 U	5 U	5 U
25A-50	25A-50	11/26/1997		5 U	5 U	5 U	5 U	5 U
25A-50	25A-50	2/13/1998		5 U	5 U	5 U	5 U	5 U
25A-50	25A-50	5/28/1998		5 U	5 U	5 U	5 U	5 U
26-25	26-25	11/7/1988		5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
27-100	27-100	5/13/1993		3.1 U	0.66 U	0.55 U	0.62 U	1.4 U
27-100	27-100	5/24/1993		79 J	0.26 U	0.16 U	-	0.19 U
27-100	27-100	6/1/1993		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
27-25R	27-25R	5/13/1993		2.01	0.14 J	0.64	0.58	0.11 J
27-25R	27-25R	6/1/1993		2.51	0.19 J	0.75	0.68	0.12 J
27-50	27-50	11/7/1988		2.55	0.50 U	0.50 U	0.50 U	0.50 U
27-50R	27-50R	5/13/1993		3.63	0.50 U	0.50 U	0.50 U	0.50 U
27-50R	27-50R	5/17/1993		1.46	0.50 U	0.50 U	0.50 U	0.50 U
27-50R	27-50R	5/24/1993		0.92	0.50 U	0.50 U	0.50 U	0.50 U
27-50R	27-50R	6/1/1993		8.2	5.0 U	5.0 U	5.0 U	5.0 U
28-15	28-15	10/31/1988		3 U	1 U	1 U	-	1 U
28-15	W-1002-120595-JW-005	12/5/1995		96000	8600	49000	31000	3400
28-15	28-15-0304	3/23/2004		500 U	500 U	500 U	500 U	500 U
29-14	29-14	11/1/1988		500 U	500 U	500 U	500 U	500 U
29-14	W-1002-120595-JW-006	12/5/1995		113100	13000 J	62000 J	33000 J	5100 J
29-14	29-14-0304	3/23/2004		500 U	500 U	500 U	500 U	500 U
30-15	30-15	11/1/1988		500 U	500 U	500 U	500 U	500 U
30-15	W-1002-120695-JW-007	12/6/1995		101200	13000	61000	24000	3200
30-15	30-15-0304	3/17/2004		5 U	5 U	5 U	5 U	5 U
3-100	3-100	11/2/1988		5 U	5 U	5 U	5 U	5 U
3-100	GW-042206-LH-3-100	4/22/2006		106600	13000	57000	34000	1000 U
3-100	GW-071706-ZF-3-100	7/17/2006		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
31-25	31-25	11/9/1988		5 U	5 U	5 U	5 U	5 U
31-25	31-25	1/17/1989		5 U	5 U	5 U	5 U	5 U
31-50B	31-50	11/9/1988		5 U	5 U	5 U	5 U	5 U
31-50B	31-50	1/17/1989		5 U	5 U	5 U	5 U	5 U
31-50B	31-50B	1/17/1989		5 U	5 U	5 U	5 U	5 U
3-175	3-175	11/18/1988		5 U	5 U	5 U	5 U	5 U
3-175	GW-071706-ZF-3-175	7/17/2006		3.6	0.15 U	0.16 U	1.6 J	2.0 J
32-100	32-100	2/11/1991		5 U	5 U	5 U	5 U	5 U
32-100	32-100	5/7/1991		5 U	5 U	5 U	5 U	5 U
32-100	32-100	8/22/1991		5 U	5 U	5 U	5 U	5 U
32-100	32-100	11/12/1991		5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

32-100	32-100	2/6/1992	5 U	5 U	5 U	5 U	5 U
32-100	32-100	5/28/1992	5 U	5 U	5 U	5 U	5 U
32-100	32-100	8/5/1992	5 U	5 U	5 U	5 U	5 U
32-100	32-100	11/11/1992	5 U	5 U	5 U	5 U	5 U
32-100	32-100	5/10/1993	5 U	5 U	5 U	5 U	5 U
32-100	32-100	5/10/1993 (Duplicate)	5 U	5 U	5 U	5 U	5 U
32-100	32-100	8/11/1993	5 U	5 U	5 U	5 U	5 U
32-100	32-100	11/5/1993	5 U	5 U	5 U	5 U	5 U
32-100	32-100	8/12/1994	5 U	5 U	5 U	5 U	5 U
32-100	32-100	2/6/1995 (Duplicate)	0.7	2.0 U	2.0 U	0.70 J	2.0 U
32-100	32-100	2/6/1995	1	0.066 U	0.055 U	1	0.14 U
32-100	32-100	5/8/1995	0.69	2.0 U	2.0 U	0.69 J	2.0 U
32-100	32-100	2/13/1998	5.3	2.5 U	2.5 U	0.60 J	2.5 U
32-100	32-100	5/27/1998	1 U	1 U	1 U	-	1 U
32-100	32-100	8/5/1998	5 U	5 U	5 U	5 U	5 U
32-100	32-100-TR-021701	2/17/2001	5 U	5 U	5 U	5 U	5 U
32-100	32-100-0203	2/12/2003	5 U	5 U	5 U	5 U	5 U
32-100	GW-070706-TR-32-100	7/7/2006	2.375	0.144 U	0.126 U	1.84	0.535 J
32-100	GW-041208-MM-32-100	12/4/2008	3460	100 U	100 U	2000	930
32-25	32-25	11/9/1988	5 U	5 U	5 U	5 U	5 U
32-25	32-25	1/17/1989	7	5 U	5 U	7	5 U
32-25	32-25	2/11/1991	5 U	5 U	5 U	5 U	5 U
32-25	32-25	5/7/1991	5 U	5 U	5 U	5 U	5 U
32-25	32-25	8/23/1991	5 U	5 U	5 U	5 U	5 U
32-25	32-25	11/12/1991	5 U	5 U	5 U	5 U	5 U
32-25	32-25	2/6/1992	5 U	5 U	5 U	5 U	5 U
32-25	32-25	5/28/1992	11	5 U	6	5	5 U
32-25	32-25	8/4/1992	5 U	5 U	5 U	5 U	5 U
32-25	32-25	11/11/1992	5 U	5 U	5 U	5 U	5 U
32-25	32-25	2/4/1993	5 U	5 U	5 U	5 U	5 U
32-25	32-25	5/10/1993	5 U	5 U	5 U	5 U	5 U
32-25	32-25	8/11/1993	5 U	5 U	5 U	5 U	5 U
32-25	32-25	8/11/1993 (Duplicate)	5 U	5 U	5 U	5 U	5 U
32-25	32-25	11/5/1993	5 U	5 U	5 U	5 U	5 U
32-25	32-25	2/3/1994	5 U	5 U	5 U	5 U	5 U
32-25	32-25	5/13/1994	5 U	5 U	5 U	5 U	5 U
32-25	32-25	8/12/1994	5 U	5 U	5 U	5 U	5 U
32-25	32-25	11/1/1994	5 U	5 U	5 U	5 U	5 U
32-25	32-25	2/6/1995	5 U	5 U	5 U	5 U	5 U
32-25	32-25	5/8/1995	5 U	5 U	5 U	5 U	5 U
32-50	32-50	1/17/1989	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
32-50	32-50	5/7/1991	5 U	5 U	5 U	5 U	5 U
32-50	32-50	8/22/1991	5 U	5 U	5 U	5 U	5 U
32-50	32-50	11/12/1991	5 U	5 U	5 U	5 U	5 U
32-50	32-50	2/6/1992	61.2	4.5 J	8.7	44	5 U
32-50	32-50	8/5/1992	5 U	5 U	5 U	5 U	5 U
32-50	32-50	11/11/1992	1.3	5 U	5 U	1.3 J	5 U
32-50	32-50	2/4/1993	5 U	5 U	5 U	5 U	5 U
32-50	32-50	5/10/1993	5 U	5 U	5 U	5 U	5 U
32-50	32-50	8/11/1993	54	5 U	5 U	5 U	5 U
32-50	32-50	11/5/1993	5 U	5 U	5 U	5 U	5 U
32-50	32-50	2/3/1994	5 U	5 U	5 U	5 U	5 U
32-50	32-50	5/13/1994	19	5 U	5 U	5 U	5 U
32-50	32-50	8/12/1994	5 U	5 U	5 U	5 U	5 U
32-50	32-50	11/1/1994	34.3	2 U	2 U	1.3 J	2 U
32-50	32-50	2/6/1995	2.3	5.0 U	5.0 U	1.5 J	0.80 J
32-50	32-50	5/8/1995	58	26	6	-	1 U
32-50	32-50	8/26/1996 (Duplicate)	19	19	5 U	5 U	5 U
32-50	32-50	8/26/1996	25	25	5 U	5 U	5 U
32-50	32-50	11/21/1996	21	21	5 U	5 U	5 U
32-50	32-50	2/11/1997	22	22	5 U	5 U	5 U
32-50	32-50	5/28/1997	21	21	5 U	5 U	5 U
32-50	32-50	11/4/1997	24	24	5 U	5 U	5 U
32-50	32-50	2/13/1998	20	20	5 U	5 U	5 U
32-50R	32-50R	6/4/1998	18	18	5 U	5 U	5 U
32-50R	32-50R	8/5/1998	20	20	5 U	5 U	5 U
32-50R	32-50R	11/6/1998	33	25	5 U	5 U	5 U
32-50R	32-50R	2/1/1999	31	23	5 U	5 U	5 U
32-50R	32-50R	5/18/1999	25	19	5 U	5 U	5 U
32-50R	32-50R	8/12/1999	23	18	5 U	5 U	5 U
32-50R	32-50R	2/11/2000	40	27	8	5 U	5 U

TABLE 4.3

SUMMARY OF VOCs  
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32-50R	FD3-TR-021701	2/17/2001	(Duplicate)	0.247	0.015 U	0.123 J	0.124 J	0.025 U
32-50R	32-50R-TR-021701	2/17/2001		11	11	5 U	5 U	5 U
32-50R	32-50R-TR-080801	8/8/2001		10.5	8.2	5 U	5 U	5 U
32-50R	32-50R	8/8/2001		13	13	5 U	5 U	5 U
32-50R	FD3-TR-012602	1/26/2002	(Duplicate)	0.399	0.015 U	0.22 J	0.179 J	0.025 U
32-50R	32-50R	1/26/2002		12	12	5 U	5 U	5 U
32-50R	32-50R-TR-012602	1/26/2002		13	13	5 U	5 U	5 U
32-50R	32-50R-RW-110902	11/9/2002		11.4	10	1.4 J	5 U	5 U
32-50R	32-50R-0203	2/12/2003		13	13 J	5 U	5 U	5 U
32-50R	FD-11-0203	2/12/2003	(Duplicate)	27950	7.50 U	8.00 U	23000	4400
32-50R	32-50-0803	8/18/2003		22	22	5 U	5 U	5 U
32-50R	32-50R-0204	2/14/2004		30	30 J	5 U	5 U	5 U
32-50R	FD-12-0204	2/14/2004	(Duplicate)	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
32-50R	GW-040506-TR-32-50R	4/5/2006		6770	100 U	100 U	170	6600
32-50R	GW-071206-TR-32-50R	7/12/2006		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
32-50R	GW-041208-MM-32-50R	12/4/2008		3270	100 U	100 U	1900	870
33-25	33-25	11/8/1988		8	8	5 U	5 U	5 U
34-100	34-100	2/12/1991		6.3	6.3	5 U	5 U	5 U
34-100	34-100	8/22/1991		20.8	7	2.5 J	1.2 J	2.7 J
34-100	34-100	2/6/1992		9.8	7.1	5 U	5 U	5 U
34-100	34-100	8/7/1992		8.3	8.3	5 U	5 U	5 U
34-100	34-100	2/4/1993		9.2	5.5	5 U	5 U	5 U
34-100	34-100	8/10/1993		7.21	5.2	0.71 J	0.062 U	0.14 U
34-100	34-100	8/11/1994		14.98	2.8	0.68 J	2.0 U	2.0 U
34-100	34-100	8/3/1995		854	2	130	-	60
34-100	GW-071206-TR-34-100	7/12/2006		22.8732	0.0578 U	0.111 J	20.1	2.6
34-100	GW-051208-MM-34-100	12/5/2008		11.4	2 U	2 U	1.5 J	5
34-25	34-25	8/7/1992		1950	25 U	25 U	1300	310
34-25	34-25	8/7/1992	(Duplicate)	2314	5	11	1500	420
34-25	34-25	2/4/1993		1291	5 U	11	780	200
34-25	34-25	8/9/1993		920	25 U	25 U	570	170
34-25	34-25	2/4/1994		664	25 U	25 U	450	74
34-25	34-25	8/11/1994		1049	5 U	19	610	210
34-25	34-25	11/1/1994		820	50 U	50 U	520	120
34-25	34-25	5/9/1995		1450	50 U	50 U	920	350
34-25	34-25	8/3/1995		1770	25 U	25 U	1100	430
34-25	GW-071206-TR-34-25	7/12/2006		1323.14	2.89 U	3.21 U	1310	9.64 J
34-25R	WG-082012-AMK-34-25R-052	8/20/2012		144100	2500 U	1600 J	100000	38000
34-50	34-50	2/12/1991		2040	25 U	25 U	1400	440
34-50	34-50	8/22/1991		2070	25 U	25 U	1400	470
34-50	34-50	2/6/1992		1740	25 U	25 U	1200	370
34-50	34-50	8/7/1992		1801	37	44	1100	440
34-50	34-50	11/11/1992		3001	25 U	25 U	2400	510
34-50	34-50	2/4/1993		3101	25 U	25 U	2200 J	840 J
34-50	34-50	8/10/1993		2908	25 U	25 U	2200 J	670 J
34-50	34-50	2/4/1994	(Duplicate)	2670	100 U	100 U	2000	670
34-50	34-50	2/4/1994		2932.6	5 U	9.6 J	2000 J	910 D
34-50	34-50	8/11/1994		2280	50 U	50 U	1800	480
34-50	34-50	8/3/1995		1968.6	12.5 U	8.6 J	1400 J	560 J
34-50	34-50	2/7/1996		1261	25 U	25 U	920	341
34-50	34-50	5/9/1996		1290	125 U	125 U	860	430
34-50	34-50	8/23/1996		1274.7	12.5 U	4.7 J	780	490
34-50	34-50	11/18/1996	(Duplicate)	723.3	1.3 U	3.3 J	540	180
34-50	34-50	11/18/1996		1051.8	5 U	4.8 J	620	370
34-50	34-50	2/13/1998		316.7	156	140	-	10 U
34-50	34-50-TR-081000	8/10/2000		35900	1400	20000	-	1000 U
34-50	34-50-TR-012202	1/22/2002		242	180	62	5 U	5 U
34-50	GW-071206-TR-34-50	7/12/2006		357.979	0.578 U	0.641 U	357	0.604 U
34-50R	WG-082012-AMK-34-50R-053	8/20/2012		137100	2500 U	1200 J	100000	32000
34-75	WG-082012-AMK-34-75-054	8/20/2012		64840	1000 U	25000	34000	4200
34C-130	WG-082012-AMK-34C-130-056	8/20/2012		3458	50 U	630	2300	430
34C-130	GW-080113-CH-34C-130-25	8/1/2013	(Duplicate)	1079	420	560	75	24
34C-160	WG-082012-AMK-34C-160-057	8/20/2012		1298	5.5 J	210	820	200
34C-160	GW-080113-CH-34C-160-26	8/1/2013		1493	57 J	46 J	1200	190 J
35-100	35-100	9/24/1996		127400	9700	81000	21000	3400
35-100	35-100	11/1/1997		13020	10000	2100	-	500 U
35-100	35-100	3/6/1998		63320	56000	5800	250 U	310
35-100	35-100	8/5/1998		37780	32000	4300	250 U	600
35-100	35-100	11/12/1998		111900	100000	10000	250 U	440
35-100	35-100	2/12/1999		20040	13000	4000	2400 J	640 J
35-100	35-100	5/18/1999		19010	13000	4200	1300	510



TABLE 4.3

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35-100	35-100	8/13/1999	16620	11000	4100	950	570
35-100	35-100	2/11/2000	3324	1700	1200	230	140
35-100	35-100R	8/10/2001	42240	14000	20000	5700	570
35-100	35-100	1/26/2002	8709	4700	3000	560	230
35-100	35-100-TR-012602	1/26/2002	37910	12000	18000	5600	540
35-100	35-100-0203	2/6/2003	9950	4600	4000	910	250
35-100	35-100-0803	8/18/2003	14960	8000	5000	1300	280
35-100R	WG-081512-JN-35-100R-059	8/15/2012	7.3	0.50 U	0.50 U	0.50 U	0.50 U
35-25	35-25	2/7/1992	36870	18000	12000	4100	500 U
35-25	35-25	2/10/1993	31450	15000	11000	4200	630 J
35-25	35-25	8/10/1993	20030	11000 J	6000 J	2400 J	500 U
35-25	35-25	2/7/1994	15476	7000 J	5800 J	1700 J	170 J
35-25	35-25	8/11/1994	16144	7400 J	6000 J	1700 J	200 J
35-25	35-25	2/7/1995	9400	4700	3000	1700	500 U
35-25	35-25	5/10/1995	9200	4400	2900	1900	500 U
35-25	35-25	8/4/1995	9100	4300	3700	1100	250 U
35-25	35-25	2/24/1997	8217	4500	2400	710	49
35-25	35-25	5/28/1997	10638	5400	3800	1000	78
35-25	35-25	8/14/1997	10754.6	5400	3800	1100	72 J
35-25	35-25	8/5/1998	11887	7900	3300	170	97
35-25	35-25-TR-021701	2/17/2001	11092	3000	2700	3100	1400
35-25	35-25	5/4/2002	11615	7900	3100	170	84
35-25	35-25-TR-050402	5/4/2002	12854	2900	3300	3700	1700
35-25	35-25-TR-080602	8/6/2002	14660	3100	3900	4700	1800
35-25	35-25-DC-110802	11/8/2002	4060	320	940	1600	1200
35-25	FD3-0203	2/6/2003 (Duplicate)	16.019	0.015 U	0.163 J	15.3	0.338
35-25	35-25-0203	2/6/2003	16152.9	8200 J	6000 J	960	200
35-25	35-25-0803	8/18/2003	19440	1300	6500	7200	3700
35-25	35-25-1103	11/18/2003	5630	250	1200	2600	1300
35-25	35-25-0204	2/9/2004	69750	49000	19000	340 J	860
35-25	35-25-0504	5/12/2004	51700	9150	29500	-	2000 U
35-25	35-25-0804	8/18/2004	13350	1400	4200	5000	2100
35-25	35-25-1104	11/13/2004	4600	300	1000	2200	1100
35-25	35-25-0205	2/18/2005	139000	100000	39000	620 U	1400 U
35-25	35-25-0505	5/18/2005	24090	1800 J	9500 J	7900 J	4200 J
35-25	GW-041406-TR-35-25	4/14/2006	1531.8	13	75	160	1100
35-25	WG-081512-JN-FD04-301	8/15/2012 (Duplicate)	0.32	0.50 U	0.50 U	0.50 U	0.50 U
35-50	35-50	2/7/1992	11000	2600	3200	3500	900
35-50	35-50	8/10/1993	12100	2400	3000	3800	2400
35-50	35-50	2/24/1997	7740	1100	2500	2600	1200
35-50	35-50	8/14/1997	8630	810	2800	3000	1600
35-50	35-50	11/1/1997	8640	690 J	4100 J	1800 J	1400 J
35-50	35-50	2/13/1998	8752	580 J	4200 J	1900 J	1500 J
35-50	35-50	8/5/1998	11303.2	720 D	6700 D	1600 D	1700 D
35-50	35-50-TR-050402	5/4/2002	164.06	4.4	25	56	70
35-50	35-50	5/4/2002	7280	310	4100	1300	1100
35-50	35-50-TR-080602	8/6/2002	53.28	2.6	7.2	6	31
35-50	35-50-DC-110802	11/8/2002	15.49	0.066 U	2.7	1.4	7.1
35-50	35-50-0203	2/6/2003	5650	170	3400	1000	640
35-50	35-50-0503	5/7/2003	4819	59 J	2400	1100	930
35-50	35-50-0803	8/18/2003	5712 J	340 J	2200 J	2100 J	670 J
35-50	35-50-0504	5/12/2004	11105	40	4800	4400	1000
35-50	35-50-0804	8/18/2004	2368	44	890	590	700
35-50	35-50-1104	11/13/2004	16.07	0.066 U	3	1.4	7.5
35-50	35-50-0205	2/18/2005	4856	87	2800	940	700
35-50	35-50-0505	5/18/2005	13844	530	5100	6000	1100
35-50	GW-041706-TR-35-50	4/17/2006	38370	7.50 U	90 J	25000	12000
35-50	GW-151208-MM-35-50	12/15/2008	16877	0.15 U	0.16 U	1800	15000
36-100	36-100	2/12/1991	56.5	2.6	7.4	6.1	34
36-100	36-100	5/9/1991	40.33	0.50 U	0.31 J	0.41 J	38
36-100	36-100	8/22/1991	18.8	5.0 U	5.0 U	4.0 J	2.3 J
36-100	36-100	11/12/1991	7.59	0.19 J	0.81	0.94	1.1
36-100	36-100	5/28/1992	7.49	0.50 U	0.23 J	0.58	0.89
36-100	36-100	8/4/1992	2920	1100	1500	-	200 U
36-100	36-100	11/2/1993	698	360	280	21	10 U
36-100	36-100	2/7/1994	1165	610 J	450 J	31 J	25 U
36-100	36-100	5/4/1994	1879	920	760	65	25 U
36-100	36-100	8/10/1994	300	150	150	25 U	25 U
36-100	36-100	11/4/1994	280	140	140	25 U	25 U
36-100	36-100	2/8/1995	461	190	210	25 J	8
36-100	36-100	5/11/1995	114	29	62	16	7

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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36-100	36-100	8/9/1995	159	34	91	28	6
36-100	36-100	9/10/1997	230	56	140	34	5 U
36-100	36-100	2/10/1998	340	110	190	35	5 U
36-100R	36-100R	8/31/1998	23	5 U	14	9	5 U
36-100R	36-100R	11/6/1998	9	5 U	18 U	9	5 U
36-100R	36-100R	2/4/1999	9	5 U	9	5 U	5 U
36-100R	36-100	2/4/1999	37	5 U	24	13	5 U
36-100R	36-100R	5/19/1999	43	5 U	32	11	5 U
36-100R	36-100R	8/16/1999	11.3	5 U	9.4	1.9 J	5 U
36-100R	36-100R	11/10/1999	6.5	5 U	6.5	5 U	5 U
36-100R	DUP-3	5/15/2000 (Duplicate)	3.4	0.50 U	0.50 U	0.50 U	0.50 U
36-100R	36-100R	5/15/2000	6	5 U	6	5 U	5 U
36-100R	36-100R-TR-080600	8/6/2000	13710	3000	6900	2900	800
36-100R	36-100R-TR-021401	2/14/2001	17260	3500	9900	2600	1100
36-100R	FD1-TR-051501	5/15/2001 (Duplicate)	644.9	0.15 U	2.4 J	43	590
36-100R	36-100R-TR-051501	5/15/2001	16050	3200	7800	3600	1300
36-100R	36-100R-TR-081101	8/11/2001	14130	3000	7300	2800 J	920
36-100R	36-100R	1/26/2002	6.5	5 U	2.6 J	5 U	5 U
36-100R	36-100R	5/4/2002	7.4	3.3 J	4.1 J	5 U	5 U
36-100R	36-100R-TR-050402	5/4/2002	20462	4000	9300	5000	2000
36-100R	36-100R-TR-080502	8/5/2002	14790	3300	7800	2700	880
36-100R	36-100R-0203	2/10/2003	15	2.5 J	3.7 J	4.0 J	4.8 J
36-100R	36-100R-0503	5/13/2003	15	5 U	5 U	5 U	15
36-100R	FD8-0503	5/13/2003 (Duplicate)	3.84 J	0.15 U	0.84 J	3.0 J	0.23 U
36-100R	36-100R-0204	2/12/2004	4.6	5 U	1.7 J	5 U	2.9 J
36-100R	36-100R-0504	5/12/2004	10	5 U	5 U	5 U	10
36-100R	36-100R-0804	8/17/2004	23120	4800	15000	-	1000 U
36-100R	36-100R-0205	2/9/2005	5 U	5 U	5 U	5 U	5 U
36-100R	GW-040606-TR-36-100R	4/6/2006	8455	50 U	50 U	2600	5800
36-25	36-25	2/12/1991	16480	4000	8700	2900	760
36-25	36-25	5/7/1991	13680	3500	8200	1400	460
36-25	36-25	8/21/1991	14180	3800	7800	2000	470
36-25	36-25	11/12/1991	13070	2500 J	6700 J	2800 J	970 J
36-25	36-25	2/5/1992	14920	3700	8000	2600	620
36-25	36-25	8/4/1992	14060	2900	7100	3300	760
36-25	36-25	11/10/1992	18250	4400	9900	3000	950
36-25	36-25	2/5/1993	18200	5200	9000	2700	1300
36-25	36-25	5/11/1993	16900	4100	9100	2600	1100
36-25	36-25	5/11/1993 (Duplicate)	22549	6000 D	13000 D	2500 D	970 D
36-25	36-25	8/10/1993 (Duplicate)	15900	4400	8500	2200	800
36-25	36-25	8/10/1993	25378.2	6400 D	15000 D	2800 D	1100 D
36-25	36-25	11/2/1993	16960	4600	9900	1900	560
36-25	36-25	8/10/1994	15624 J	4200 J	8500 J	2000 J	900 J
36-25	36-25	11/4/1994	6240	1800	3300	810	330
36-25	36-25	2/7/1995	14345	3800	8900	1400	245
36-25	36-25	5/11/1995	15690	4700	9000	1400	300
36-25	36-25	8/8/1995	17070 J	5600 J	10000 J	1200 J	270 J
36-25	36-25	11/1/1997	17790 J	5500 J	12000 J	50 UJ	290 J
36-25	36-25	2/10/1998	14510	4800	8200	1200	310
36-25	36-25	5/21/1998	4360	1200	2600	460	100
36-25	36-25	8/4/1998	7726	2100	4700	800	58 J
36-25	36-25	11/6/1998	170	5 U	26	64	22
36-25	36-25	2/4/1999	218	9	40	87	34
36-25	36-25	5/19/1999	326	12	110	110	23
36-25	36-25	8/16/1999	310	6	51	150	37
36-25	36-25	11/10/1999	334	7	68	150	29
36-25	36-25	2/9/2000	335	5 U	60	170	23 J
36-25	36-25	5/11/2000	331	5 U	68	140	34
36-25	36-25-TR-080400	8/4/2000	5 U	5 U	5 U	5 U	5 U
36-25	36-25	11/8/2000	326	12	110	110	23
36-25	36-25-TR	11/8/2000	156.3 J	1.0 J	13 J	10 J	130 J
36-25	36-25-TR-021401	2/14/2001	8.9	5 U	5 U	5 U	4.6 J
36-25	36-25-TR-051501	5/15/2001	3 U	1 U	1 U	-	1 U
36-25	36-25	8/11/2001	812	69	520	150	28
36-25	36-25-TR-012202	1/22/2002	162.8	4.6 J	15	11	130
36-25	36-25	1/22/2002	677	37	390	130	120
36-25	36-25	4/30/2002	477	31	280	140	21
36-25	36-25-TR-043002	4/30/2002	100.3 J	1.0 J	6.3	1.9 J	90
36-25	36-25-TR-080402	8/5/2002	5 U	5 U	5 U	5 U	5 U
36-25	36-25-DC-111102	11/11/2002	5 U	5 U	5 U	5 U	5 U
36-25	36-25-0203	2/9/2003	613	51	490	65	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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36-25	36-25-0503	5/13/2003		51	5 U	27	12	6
36-25	FD7-0503	5/13/2003	(Duplicate)	156912	0.15 U	42	67000	88000
36-25	36-25-0803	8/17/2003		1080	180	680	70	150
36-25	36-25-1103	11/14/2003		885.8	12	500	130	220
36-25	36-25-0204	2/7/2004		87	10 U	41	28	18
36-25	36-25-0504	5/12/2004		234.6	1.9 J	58	12	160
36-25	36-25-1104	11/9/2004		113	19	37	16	41
36-25	36-25-0205	2/9/2005		41	10 U	17	14	10
36-25	36-25-0505	5/10/2005		835	210	450	75 J	100
36-50	36-50	2/12/1991		5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/7/1991		5 U	5 U	5 U	5 U	5 U
36-50	36-50	8/21/1991		5 U	5 U	5 U	5 U	5 U
36-50	36-50	11/12/1991		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/5/1992		5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/28/1992		5 U	5 U	5 U	5 U	5 U
36-50	36-50	8/4/1992		5 U	5 U	5 U	5 U	5 U
36-50	36-50	11/10/1992		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/5/1993		5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/11/1993		5 U	5 U	5 U	5 U	5 U
36-50	36-50	8/10/1993		5 U	5 U	5 U	5 U	5 U
36-50	36-50	11/2/1993		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/7/1994		5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/4/1994		5 U	5 U	5 U	5 U	5 U
36-50	36-50	8/10/1994		5 U	5 U	5 U	5 U	5 U
36-50	36-50	11/4/1994		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/7/1995		5 U	5 U	5 U	5 U	5 U
36-50	36-50	8/9/1995		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/8/1996		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/8/1996	(Duplicate)	5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/17/1996		5 U	5 U	5 U	5 U	5 U
36-50	36-50	2/14/1997		5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/15/1997		1.357	0.066 U	0.057 J	1.3	0.14 U
36-50	36-50	8/19/1997		1.2	0.066 U	0.055 U	1.2	0.14 U
36-50	36-50	5/21/1998		2.6	2.5 U	2.5 U	1.1 J	2.5 U
36-50	36-50	8/10/1998		3 U	1 U	1 U	-	1 U
36-50	36-50	11/6/1998		5.0 U	5 U	5 U	5 U	5.0 U
36-50	36-50	2/4/1999		5.0 U	5 U	5 U	5 U	5.0 U
36-50	36-50	5/19/1999		5 U	5 U	5 U	5 U	5 U
36-50	36-50	8/16/1999		5 U	5 U	5 U	5 U	5 U
36-50	36-50	11/10/1999		5 U	5 U	5 U	5 U	5 U
36-50	DUP-5	2/9/2000	(Duplicate)	381.6 J	0.15 UJ	0.20 J	1.4 J	380
36-50	36-50	2/9/2000		5 U	5 U	5 U	5 U	5 U
36-50	36-50	5/15/2000		5 U	5 U	5 U	5 U	5 U
36-50	36-50-TR-080600	8/6/2000		5 U	5 U	5 U	5 U	5 U
36-50	36-50	11/8/2000		5 U	5 U	5 U	5 U	5 U
36-50	36-50-TR	11/8/2000		5 U	5 U	5 U	5 U	5 U
36-50	36-50-TR-021401	2/14/2001		6	5 U	5 U	5 U	6
36-50	FD1-TR-021401	2/14/2001	(Duplicate)	16215 J	95 J	2500	9700	3700
36-50	36-50-TR-051501	5/15/2001		9	5 U	5 U	5 U	9
36-50	36-50	8/11/2001		5 U	5 U	5 U	5 U	5 U
36-50	36-50-TR-081101	8/11/2001		5 U	5 U	5 U	5 U	5 U
36-50	36-50	1/22/2002		5 U	5 U	5 U	5 U	5 U
36-50	36-50-TR-012202	1/22/2002		5 U	5 U	5 U	5 U	5 U
36-50	FD1-TR-050402	5/4/2002	(Duplicate)	2309	0.75 U	57	1700	530
36-50	36-50	5/4/2002		5 U	5 U	5 U	5 U	5 U
36-50	FD3-TR-080502	8/5/2002	(Duplicate)	1.264	0.126 J	0.478 J	0.464 J	0.196
36-50	36-50-TR-080402	8/5/2002		5.4	5 U	5 U	5 U	5.4
36-50	36-50-DC-111102	11/11/2002		8	5 U	5 U	5 U	8
36-50	FD3-DC-111102	11/11/2002	(Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
36-50	36-50-0203	2/10/2003		5 U	5 U	5 U	5 U	5 U
36-50	36-50-0503	5/13/2003		5 U	5 U	5 U	5 U	5 U
36-50	36-50-0803	8/17/2003		5	5 U	5 U	5 U	5
36-50	36-50-1103	11/18/2003		10	5 U	5 U	5 U	10
36-50	36-50-0204	2/12/2004		5 U	5 U	5 U	5 U	5 U
36-50	FD1-0504~36-50	5/12/2004	(Duplicate)	132200	-	20000	88000	22000
36-50	FD1-0504	5/12/2004	(Duplicate)	242928	0.15 U	28	130000	110000
36-50	36-50-0504	5/12/2004		5 U	5 U	5 U	5 U	5 U
36-50	36-50-0804	8/17/2004		8	5 U	5 U	5 U	8
36-50	FD2-0804	8/17/2004	(Duplicate)	10	1.50 U	1.60 U	5.4 J	4.6 J
36-50	36-50-1104	11/13/2004		9	5 U	5 U	5 U	9 J
36-50	FD1-0205	2/9/2005	(Duplicate)	31291.5	0.15 U	1.5 J	14000	17000

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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36-50	36-50-0205	2/9/2005	5 U	5 U	5 U	5 U	5 U
36-50	36-50-0505	5/12/2005	5 U	5 U	5 U	5 U	5 U
37-100	37-100	5/13/1993	9.5	5 U	3.6 J	3.3 J	2.6 J
37-100	37-100	5/24/1993	3.4	5 U	5 U	5 U	3.4 J
37-100	37-100	6/1/1993	9.9	5 U	4.0 J	2.5 J	3.4 J
37-170	37-170	5/13/1993	30.6	5 U	14	9.5	7.1
37-170	37-170	5/17/1993	5 U	5 U	5 U	5 U	5 U
37-170	37-170	5/24/1993	32.9	5 U	18	11	3.9 J
37-170	37-170	6/1/1993	22.3	5 U	14	8.3	5 U
37-25	37-25	5/13/1993	83.8	5 U	24	11	2.8 J
37-25	37-25	5/17/1993	37.3	5 U	18	14	5.3
37-25	37-25	5/24/1993	116	5 U	20	14	5 U
37-25	37-25	6/1/1993	65	5 U	37	15	5 U
37-50	37-50	5/13/1993	16.7	0.35 J	11	1.4	3.7
37-50	37-50	5/17/1993	60.1	5 U	29	11	5.1
37-50	37-50	5/24/1993	21.8	5 U	11	3.6 J	7.2
37-50	37-50	6/1/1993	34.6	2	17	9.9	4.6
38-55	38-55-0304	3/17/2004	39.65	4.9	7.3	9.7	17
40-100	40-100	11/13/1992	323000	36000	260000	-	25000 U
40-100	40-100	2/3/1993	3871	50 U	50 U	3400	410
40-100	40-100	2/1/1994	204000	6250 U	24000	-	12500 U
40-100	40-100	8/9/1994	52530	380 J	2400	45000	3300
40-100	40-100	8/1/1995	5 U	5 U	5 U	-	10 U
40-100	40-100	3/1/1996 (Duplicate)	6	5 U	5 U	5 U	10 U
40-100	40-100	3/1/1996	5 U	5 U	5 U	5 U	10 U
40-100	40-100	5/16/1996	5 U	5 U	5 U	5 U	10 U
40-100	40-100	8/20/1996	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
40-100	40-100	9/26/1996	5 U	5 U	5 U	5 U	10 U
40-100	40-100	11/15/1996	5 U	5 U	5 U	5 U	5 U
40-100	40-100	2/14/1997	5 U	5 U	5 U	5 U	5 U
40-100	40-100	2/14/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
40-100	40-100	5/21/1997	5 U	5 U	5 U	5 U	5 U
40-100	40-100	5/21/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
40-100	40-100	8/22/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
40-100	40-100	11/2/1997	5 U	5 U	5 U	5 U	5 U
40-100	40-100	11/2/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
40-100	40-100	3/4/1998	5 U	5 U	5 U	5 U	5 U
40-100	40-100	5/26/1998	5 U	5 U	5 U	5 U	5 U
40-100	40-100	8/4/1998	5 U	5 U	5 U	5 U	5 U
40-100	40-100	11/13/1998	5 U	5 U	5 U	5 U	5 U
40-100	40-100	2/11/1999	5 U	5 U	5 U	5 U	5 U
40-100	40-100	5/19/1999	5 U	5 U	5 U	5 U	5 U
40-100	40-100	8/10/1999	5 U	5 U	5 U	5 U	5 U
40-100	40-100	8/10/1999 (Duplicate)	5 U	5 U	5 U	5 U	5 U
40-100	40-100	11/6/1999	5 U	5 U	5 U	5 U	5 U
40-100	40-100	2/8/2000	5 U	5 U	5 U	5 U	5 U
40-100	40-100	5/13/2000	5 U	5 U	5 U	5 U	5 U
40-100	40-100-TR-081100	8/11/2000	60	5 U	5 U	5 U	5 U
40-100	40-100-TR	11/14/2000	28	5 U	5 U	5 U	5 U
40-100	FD-4-TR	11/14/2000 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
40-100	40-100	11/16/2000	5 U	5 U	5 U	5 U	5 U
40-100R	40-100R-DC-030301	3/3/2001	16	5 U	5 U	5 U	5 U
40-100R	FD3-TR-051801	5/18/2001 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
40-100R	40-100R-TR-051801	5/18/2001	5 U	5 U	5 U	5 U	5 U
40-100R	FD1	8/8/2001 (Duplicate)	312208.4	0.15 U	8.4	250000	58000
40-100R	40-100R-TR-080801	8/8/2001	5 U	5 U	5 U	5 U	5 U
40-100R	FD6-TR-012702	1/27/2002 (Duplicate)	81550	0.15 U	0.16 U	27000	53000
40-100R	40-100R-TR-012702	1/27/2002	5 U	5 U	5 U	5 U	5 U
40-100R	40-100R-TR-050502	5/5/2002	1.4	5 U	5 U	1.4 J	5 U
40-100R	FD3-TR-050502	5/5/2002 (Duplicate)	1.462	0.015 U	0.378 J	0.973	0.111
40-100R	40-100R	5/5/2002	5 U	5 U	5 U	5 U	5 U
40-100R	40-100R-TR-080802	8/8/2002	5.7	5 U	5 U	5 U	5 U
40-100R	FD8-TR-080802	8/8/2002 (Duplicate)	677.476	0.06 U	0.08 U	10.9	664
40-100R	40-100R-DC-111102	11/11/2002	5 U	5 U	5 U	5 U	5 U
40-100R	40-100R-0203	2/6/2003	5 UJ	5 U	5 UJ	5 U	5 U
40-100R	40-100-0803	8/18/2003	5 U	5 U	5 U	5 U	5 U
40-100R	40-100R-1103	11/17/2003	2.8	5 U	5 U	2.8 J	5 U
40-100R	40-100R-0204	2/16/2004	5 U	5 U	5 U	5 U	5 U
40-100R	40-100R-1104	11/15/2004	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
40-100R	40-100R-0205	2/15/2005	5 U	5 U	5 U	5 U	5 U
40-100R	FD5-0505	5/18/2005 (Duplicate)	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
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40-100R	40-100R-0505	5/18/2005	5 U	5 U	5 U	5 U	5 U
40-100R	GW-120513-BP-40-100R-18	12/5/2013	31956.01	0.41 J	1000	22000	7400
40-25	40-25	3/1/1996	17	5 U	5 U	5 U	5 U
40-25	40-25	5/16/1996	5 U	5 U	5 U	5 U	5 U
40-25	40-25	8/20/1996	2.3	2 U	2 U	2 U	2 U
40-25	40-25	9/26/1996	1.4	0.066 U	0.055 U	1.4	0.14 U
40-25	40-25	11/15/1996	1.3	0.066 U	0.055 U	1.3	0.14 U
40-25	40-25	11/2/1997	5 U	5 U	5 U	-	10 U
40-25	40-25	2/14/1998	5 U	5 U	5 U	5 U	10 U
40-25	40-25	2/14/1998 (Duplicate)	5 U	5 U	5 U	5 U	10 U
40-25	40-25	5/23/1998	5 U	5 U	5 U	5 U	10 U
40-25	40-25	8/4/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
40-25	40-25	11/9/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
40-25	40-25	2/2/1999	5 U	5 U	5 U	5 U	10 U
40-25	40-25	5/19/1999	5 U	5 U	5 U	5 U	5 U
40-25	40-25	8/10/1999	5 U	5 U	5 U	5 U	5 U
40-25	40-25	11/6/1999	5 U	5 U	5 U	5 U	5 U
40-25	40-25	2/8/2000	5 U	5 U	5 U	5 U	5 U
40-25	40-25-TR-080800	8/8/2000	5 U	5 U	5 U	5 U	5 U
40-25	40-25-TR	11/11/2000	5 U	5 U	5 U	5 U	5 U
40-25	40-25	11/15/2000	5 U	5 U	5 U	5 U	5 U
40-25	40-25-DC-030301	3/3/2001	10	10	5 U	5 U	5 U
40-25	40-25-0205	2/15/2005	5	5	5 U	5 U	5 U
40-25	40-25-0505	5/18/2005	44	44	5 U	5 U	5 U
40-25	GW-041706-TR-40-25	4/17/2006	38300	7.50 U	110 J	25000	12000
40-25	GW-120513-MD-40-25-22	12/5/2013	8.9	0.15 U	0.16 U	2.9 J	6
40-50	40-50	8/8/1992	5 U	5 U	5 U	5 U	5 U
40-50	40-50	11/13/1992	5 U	5 U	5 U	5 U	5 U
40-50	40-50	2/3/1993	5 U	5 U	5 U	5 U	5 U
40-50	40-50	2/3/1993 (Duplicate)	5 U	5 U	5 U	5 U	5 U
40-50	40-50	8/12/1993	5 U	5 U	5 U	5 U	5 U
40-50	40-50	2/1/1994	7	7	5 U	5 U	5 U
40-50	40-50	8/9/1994	5 U	5 U	5 U	5 U	5 U
40-50	40-50	11/2/1994	5 U	5 U	5 U	5 U	5 U
40-50	40-50	2/8/1995	5 U	5 U	5 U	5 U	5 U
40-50	40-50	5/11/1995	5 U	5 U	5 U	5 U	5 U
40-50	40-50	3/1/1996	5 U	5 U	5 U	5 U	5 U
40-50	40-50	8/20/1996	5 U	5 U	5 U	5 U	5 U
40-50	40-50	11/15/1996	5 U	5 U	5 U	5 U	5 U
40-50	40-50	2/14/1997	5 U	5 U	5 U	5 U	5 U
40-50	40-50	5/21/1997	5 U	5 U	5 U	5 U	5 U
40-50	40-50	8/22/1997	5 U	5 U	5 U	5 U	5 U
40-50	40-50	11/2/1997	5 U	5 U	5 U	5 U	5 U
40-50	40-50	8/8/1998	5 U	5 U	5 U	5 U	5 U
40-50	40-50	2/2/1999	5 U	5 U	5 U	5 U	5 U
40-50	40-50	5/22/1999 (Duplicate)	18	5 U	5 U	5 U	5 U
40-50	40-50	5/22/1999	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
40-50	40-50	8/10/1999	5.1	5 U	5 U	5 U	5 U
40-50	40-50	11/6/1999	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
40-50	40-50	2/8/2000	2.1	5 U	1.0 J	1.1 J	5 U
40-50	40-50	5/13/2000	5 U	5 U	5 U	5 U	5 U
40-50	40-50	11/14/2000	5 U	5 U	5 U	5 U	5 U
40-50	40-50	8/10/2001	5 U	5 U	5 U	5 U	5 U
40-50	40-50	1/27/2002	5 U	5 U	5 U	5 U	5 U
40-50	40-50	5/5/2002	18	5 U	5 U	5 U	5 U
40-50	40-50-TR-080802	8/8/2002	28.46	0.066 U	3.6	9.6	9.1
40-50	40-50-0203	2/6/2003	17	5 U	5 U	5 U	5 U
40-50	40-50-0503	5/7/2003	4.2	2 U	2 U	4.2	2 U
40-50	FD-13-0204	2/16/2004 (Duplicate)	7.4	0.15 U	2.6	4.8	0.23 U
40-50	40-50-0204	2/16/2004	5 U	5 U	5 U	5 U	5 U
40-50	FD3-0504~40-50	5/13/2004 (Duplicate)	0.175	0.015 U	0.02 U	0.175 J	0.025 U
40-50	FD3-0504	5/13/2004 (Duplicate)	1.35	0.015 U	0.02 U	1.35	0.025 U
40-50	40-50-0504	5/13/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
40-50	40-50-0205	2/15/2005	5 U	5 U	5 U	5 U	5 U
40-50	GW-041306-TR-40-50	4/13/2006	1790	6.4 U	5 U	550	940
40-50	GW-120513-MD-40-50-19	12/5/2013	1.8	0.15 U	0.16 U	1.8 J	0.23 U
40-75	GW-120513-BP-40-75-21	12/5/2013	49325 J	25	7700	25000	15000
40A-100	40A-100	8/10/1999	0.284	0.066 U	0.055 U	0.064 J	0.22 J
40A-100	40A-100	2/9/2000	20510	-	13000	-	1 U
40A-100	40A-100	2/10/2000	402070	50 U	280000	-	970
40A-100	40A-100	5/12/2000	106	4	6	-	75

TABLE 4.3

**SUMMARY OF VOCs  
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40A-100	DUP-1	5/12/2000	(Duplicate)	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
40A-100	FD6-TR-080900	8/9/2000	(Duplicate)	454908.9	0.15 U	8.9	360000	91000
40A-100	40A-100-TR	11/14/2000		16	5 U	5 U	5 U	5 U
40A-100	FD-1-TR	11/14/2000	(Duplicate)	19400	7.50 U	8.00 U	2400	17000
40A-100	40A-100-TR-021901	2/19/2001		4	1 J	5 U	-	10 U
40A-100	FD2-TR-051801	5/18/2001	(Duplicate)	0.425	0.015 U	0.02 U	0.015 U	0.025 U
40A-100	40A-100-TR-051801	5/18/2001		14	8	6	-	1 U
40A-100	40A-100-TR-080801	8/8/2001		13	6	3 J	-	10 U
40A-100	FD2	8/8/2001	(Duplicate)	753.8	0.15 U	0.16 U	730	15
40A-100	40A-100-TR-012702	1/27/2002		17	7	10	-	1 U
40A-100	FD5-TR-012702	1/27/2002	(Duplicate)	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
40A-100	40A-100-TR-050502	5/5/2002		6.3	2.7 J	5 U	5 U	5 U
40A-100	40A-100-TR-080802	8/8/2002		8.9	5	5 U	5 U	5 U
40A-100	40A-100-RW-110902	11/9/2002		8	5	3 J	-	10 U
40A-100	40A-100-0203	2/6/2003		15320	100 U	100 U	-	15000
40A-100	FD4-0804	8/18/2004	(Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
40A-100	40A-100-1104	11/15/2004		7	3	4	-	1 U
40A-100	FD4-1104	11/15/2004	(Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
40A-100	GW-121013-LP-40A-100-28	12/10/2013		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
40A-25	40A-25	9/24/1996		7162	25 U	860	-	920
40A-25	40A-25	8/14/1997		481	5 U	5 U	-	71
40A-25	40A-25	2/12/1998		208000	5000 U	18000	-	10000 U
40A-25	40A-25	5/28/1998		293000	2500 U	2500 U	280000	13000
40A-25	40A-25	8/4/1998		251000	2500 U	2500 U	240000 D	11000
40A-25	40A-25-TR-021901	2/19/2001		247500	2500 U	2500 U	210000 D	36000 DJ
40A-25	40A-25-TR-051801	5/18/2001		179000	5000 U	5000 U	143000	36000
40A-25	40A-25-TR-081001	8/10/2001		170000	5000 U	5000 U	150000	20000
40A-25	40A-25	8/10/2001		48010 D	250 U,D	250 U,D	40000 D	7000 D
40A-25	40A-25-TR-020102	2/1/2002		206000	2500 U	2500 U	180000 D	26000 J
40A-25	40A-25-TR-050602	5/6/2002		187000	5000 U	5000 U	163000	24000
40A-25	FD7-TR-080802	8/8/2002	(Duplicate)	49420.3	8.3	280	0.16 U	49000
40A-25	40A-25-TR-080802	8/8/2002		243000	5000 U	5000 U	210000 J	33000 J
40A-25	40A-25-RW-110902	11/9/2002		84000	5000 U	5000 U	67000	17000
40A-25	40A-25-0203	2/6/2003		400000	2500 U	2500 U	400000 D	31000 U
40A-25	40A-25-0503	5/7/2003		97700 DJ	5000 U,D	5000 U,D	83000 D	9200 DJ
40A-25	40A-25-0803	8/18/2003		158100 D	1000 U,D	1000 U,D	140000 D	17000 D
40A-25	40A-25-1103	11/17/2003		25890.9	5.0 U	32	22000 DJ	3000 DJ
40A-25	40A-25-0204	2/16/2004		135816 J	13 J	260 J	120000 DJ	15000 DJ
40A-25	40A-25-0504	5/13/2004		205000 D	5000 U,D	5000 U,D	190000 D	15000 D
40A-25	40A-25-0804	8/18/2004		111000 DJ	5000 U,D	5000 U,D	95000 DJ	16000 DJ
40A-25	40A-25-1104	11/15/2004		204000 D	5000 U,D	5000 U,D	180000 D	24000 D
40A-25	40A-25-0205	2/16/2005		180720 DJ	1000 U,D	1000 U,D	160000 D	19000 D
40A-25	40A-25-0505	5/18/2005		387000 D	5000 U,D	5000 U,D	370000 D	17000 D
40A-25	GW-041306-TR-40A-25	4/13/2006		777	25 U	25 U	87	520
40A-25	GW-120513-JN-40A-25-20	12/5/2013		30723	0.15 U	61	4400	26000
40A-50	40A-50	9/24/1996		220200	5000 U	5000 U	190000	23000
40A-50	40A-50	5/30/1997		142000	11000	30000	-	21000
40A-50	40A-50	8/14/1997		201800	5000 U	5000	110000	80000
40A-50	40A-50	11/2/1997		109000	5000 U	5000 U	67000	42000
40A-50	40A-50	2/12/1998		100100 D	3000 D	2100 D	55000 D	40000 D
40A-50	40A-50	5/28/1998		124000	5000 U	5000 U	51000	73000
40A-50	40A-50	8/4/1998		108957 J	2100 DJ	560 J	54000 DJ	52000 DJ
40A-50	40A-50-TR-021901	2/19/2001		93590 DJ	2200 D	1200 D	38000 D	52000 D
40A-50	GW-041306-TR-40A-50	4/13/2006		867	25 U	25 U	97	580
40A-50	GW-120513-JN-40A-50-23	12/5/2013		39.63	0.39 J	2.6 J	27	8.9
41-100	41-100	8/7/1992		78000	5000 U	5000 U	35000	43000
41-100	41-100	11/13/1992		82000	5000 U	5000 U	36000 J	46000
41-100	41-100	2/3/1993		79000	5000 U	5000 U	37000 J	42000 J
41-100	41-100	5/10/1993		82000	5000 U	5000 U	38000	44000
41-100	41-100	8/12/1993		57000	5000 U	5000 U	23000	34000
41-100	41-100	11/3/1993		60000	5000 U	5000 U	27000	33000
41-100	41-100	2/2/1994		79140	1600	670	32000	44000
41-100	41-100	5/9/1994		136160	2000	2000	67000	64000
41-100	41-100	8/8/1994		174680	2000	5700	120000	44000
41-100	41-100	11/3/1994		176300	2700	5900	120000	44000
41-100	41-100	2/10/1995		261000	5100	16000	200000	32000
41-100	41-100	5/16/1995		286910	2000	10000	250000	22000
41-100	41-100	8/2/1995		193700	1000 U	12000 J	170000 J	9400 J
41-100	41-100	6/18/1996		185500	2500 U	5500	140000	40000
41-100	41-100	7/19/1996		124000	1000 U	1000 U	98000 J	26000 J
41-100	41-100	8/19/1996		211100	1000 U	1200	160000	48000

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

41-100	41-100	9/25/1996	195000	2500 U	2500 U	150000	45000
41-100	41-100	11/11/1996	139000	2500 U	2500 U	110000	29000
41-100	41-100	2/11/1997	195000	2500 U	2500 U	160000	35000
41-100	41-100	5/16/1997	188000	2500 U	16000	150000	22000
41-100	41-100	8/20/1997	174900	1900	11000	140000	22000
41-100	41-100	11/5/1997	129000	5000 U	5000 U	110000	19000
41-100	41-100	3/3/1998	114000	5000 U	5000 U	98000	16000
41-100	41-100	6/4/1998	97000	2500 U	2500 U	83000	14000
41-100	41-100	2/6/1999	64160	500 U	500 U	50000	13000
41-100	41-100	2/7/1999	66000	2500 U	2500 U	53000	13000
41-100	41-100	5/17/1999	55880	2500 U	2500 U	41000	14000
41-100	41-100	8/14/1999	47070	500 U	260 J	34000	12000
41-100	41-100	2/9/2000	37370 J	250 U	250 U	28000	8800
41-100	41-100-TR-081000	8/10/2000	5 U	5 U	5 U	5 U	10 U
41-100	41-100-TR-022001	2/20/2001	17	5 U	5 U	5 U	17
41-100	41-100-TR-081101	8/11/2001	5	5 U	5 U	5 U	10 U
41-100	41-100	8/11/2001	31150	250 U	250 U	24000	6600
41-100	41-100-TR-012902	1/29/2002	19	5 U	5 U	5 U	19
41-100	41-100	1/29/2002	29150	250 U	250 U	20000	8300
41-100	41-100-TR-080702	8/7/2002	5 U	5 U	5 U	5 U	10 U
41-100	41-100-0203	2/11/2003	27630	250 U	250 U	19000	8000
41-100	41-100-0204	2/13/2004	28340	66 U	55 U	18000	10000
41-100	41-100-0804	8/18/2004	4393	130 U	130 U	760	3500
41-100	GW-072706-ILM-41-100	7/27/2006	244.571 J	44.5	176	20.7 J	1.43 J
41-138	41-138	11/13/1992	5 U	5 U	5 U	5 U	10 U
41-138	41-138	2/3/1993	35	5 U	5 U	21	14
41-138	41-138	5/10/1993	5 U	5 U	5 U	5 U	10 U
41-138	41-138	8/12/1993	5 U	5 U	5 U	5 U	10 U
41-138	41-138	11/3/1993	5.0 U	5 U	5 U	5 U	5.0 U
41-138	41-138	2/2/1994	5.0 U	5 U	5 U	5 U	5.0 U
41-138	41-138	5/9/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-138	41-138	8/8/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-138	41-138	11/3/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-138	41-138	2/10/1995	7.2	5.0 U	5.0 U	7.2	5.0 U
41-138	41-138	5/16/1995	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-138	41-138	8/2/1995	6	5 U	5 U	6	5 U
41-138	41-138	3/8/1996	5 U	5 U	5 U	5 U	10 U
41-138	41-138	5/8/1996	5 U	5 U	5 U	5 U	10 U
41-138	41-138	6/18/1996	5 U	5 U	5 U	5 U	5 U
41-138	41-138	7/19/1996	5 U	5 U	5 U	5 U	5 U
41-138	41-138	11/11/1996 (Duplicate)	500 U	500 U	500 U	500 U	500 U
41-138	41-138	5/16/1997	47.18	0.066 U	0.18 J	1.3	44
41-138	41-138	3/3/1998	4555	1900	2400	-	200
41-138	41-138	3/3/1998 (Duplicate)	42642	220	14000	-	26000
41-138	41-138	5/20/1998	2850	250 U	250 U	2400	500 U
41-138	41-138	8/9/1998	1383	5 U,D	53 D	1000 D	140 D
41-138	41-138	11/16/1998	2040 J	5 UJ	130 J	1700 DJ	170 J
41-138	41-138	2/7/1999	742	25 U	57	560	78 J
41-138	41-138	5/17/1999	528	5 U	60	400 DJ	10 U
41-138	41-138	8/14/1999	2570 D	25 U,D	98 D	2000 D	120 D
41-138	41-138	2/9/2000	658 D	25 U,D	76 D	100 U,D	150 D
41-138	41-138	2/10/2000	3323	25 U	72	2600 D	200
41-138	41-138-TR-081000	8/10/2000	20319 J	5 UJ	5 J	300 J	20000 DJ
41-138	41-138-TR-022001	2/20/2001	26200	500 U	500 U	1200	25000
41-138	41-138	8/11/2001	2210	25 U	30	1800	100
41-138	41-138-TR-081101	8/11/2001	15130	5 U	5 U	90	15000 DJ
41-138	41-138-TR-012902	1/29/2002	1212	25 U	25 U	840	56
41-138	41-138	1/29/2002	2380	25 U	30	1865	120
41-138	41-138-TR-080702	8/7/2002	1918	500 U,D	500 U,D	250 U	1900 D
41-138	41-138-0203	2/11/2003	2010	25 U	40	1600	80
41-138	41-138-0204	2/13/2004	1173	25 U	25 U	940	73
41-138	41-138-0804	8/18/2004	183.3	2.0 U	1.3 J	130	13
41-138	41-138-0205	2/16/2005	51297	66 U	77 J	34000	3800
41-138	GW-042206-TR-41-138	4/22/2006	58600	7600	28000	23000	1000 U
41-138	GW-072706-ILM-41-138	7/27/2006	329.548 J	79.6	160	86.4 J	1.34 J
4-115	4-115	11/16/1988	18144 D	25 U,D	25 U,D	82	18000 D
4-115	4-115	1/21/1989	14119.6	5 U	5 U	58	14000 D
4-115	4-115	1/21/1989 (Duplicate)	15108 D	25 U,D	25 U,D	28 D	15000 D
4-115R	4-115R	5/6/1994	16052	25 U	25 U	25 U	16000 D
4-115R	4-115R	3/5/1996	10130	25 U	25 U	70	10000
4-115R	4-115R	5/7/1996	12910	25 U	25 U	25 U	12860

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

4-115R	4-115R	8/13/1996	10050	25 U	25 U	25 U	10000 J
4-115R	4-115R	9/26/1996	8137	25 U	25 U	25 U	8100
4-115R	4-115R	11/7/1996	12050	50 U	50 U	50 U	12000
4-115R	4-115R	2/3/1997	9600	50 U	50 U	50 U	9600
4-115R	4-115R	5/8/1997	9600	50 U	50 U	50 U	9600
4-115R	4-115R	9/3/1997	12058	50 U	50 U	50 U	12000 J
4-115R	4-115R	11/21/1997	11000	250 U	250 U	250 U	11000
4-115R	4-115R	2/24/1998	12067	50 U	50 U	50 U	12000
4-115R	4-115R	3/1/1998	11180	50 U	50 U	180	11000
4-115R	4-115R	4/1/1998	19730	50 U	50 U	3600	16000
4-115R	4-115R	5/22/1998	14298	50 U	50 U	1200	13000
4-115R	4-115R	6/1/1998	36280	50 U	50 U	5100	31000
4-115R	4-115R	7/1/1998	60500	500 U	500 U	21000	39000
4-115R	4-115R	8/20/1998	49000	500 U	500 U	19000	30000
4-115R	4-115R	9/1/1998	37000	500 U	500 U	18000	19000
4-115R	4-115R	10/1/1998	15400	500 U	500 U	5400	10000
4-115R	4-115R	11/18/1998	11400	500 U	500 U	4000	7400
4-115R	4-115R	12/1/1998	9000	500 U	500 U	4300	4700
4-115R	4-115R	1/1/1999	8290	100 U	100 U	4700 J	3300 J
4-115R	4-115R	2/1/1999	6870	32 U	20 U	3500	3200
4-115R	4-115R	2/13/1999	5180	100 U	100 U	2800	2100
4-115R	4-115R	5/1/1999	4490	100 U	100 U	2200	2000
4-115R	4-115R	2/1/2000	4956	25 U	25 U	1100	3600
4-115R	4-115R	2/12/2000	2950	50 U	50 U	650	2300
4-115R	4-115R-TR-080900	8/9/2000	5 U	5 U	5 U	5 U	10 U
4-115R	4-115R-TR-022201	2/22/2001	353.5	13 U	13 U	23	290
4-115R	4-115R	8/18/2001	2410	50 U	50 U	250	2000
4-115R	FD8	8/18/2001 (Duplicate)	3024.1	3.3 J	100	1600	1300
4-115R	4-115R-TR-081801	8/18/2001	5 U	5 U	5 U	5 U	10 U
4-115R	FD11-TR-012802	1/28/2002 (Duplicate)	64.7	0.15 U	3.4	50	4.9
4-115R	4-115R	1/28/2002	1493.2	5 U	5 U	630	680
4-115R	4-115R-TR-080402	8/4/2002	7.41	0.50 U	0.50 U	0.81	6.3
4-115R	4-115R-0203	2/4/2003	2159.2	12.5 U	12.5 U	790	1100
4-115R	4-115-0803	8/20/2003	16052	25 U	25 U	25 U	16000 D
4-115R	4-115R-0204	2/9/2004	2190	6.6 U	5.5 U	570	1400
41-50	41-50	8/8/1992	5 UJ	5 UJ	5 UJ	5 UJ	10 UJ
41-50	41-50	11/13/1992	5 U	5 U	5 U	5 U	10 U
41-50	41-50	2/3/1993	5 U	5 U	5 U	5 U	10 U
41-50	41-50	8/12/1993	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-50	41-50	2/2/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-50	41-50	8/8/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
41-50	41-50	2/10/1995	5 U	5 U	5 U	5 U	5 U
41-50	41-50	5/16/1995	5	5 U	5 U	5 U	5
41-50	41-50	8/2/1995	5 U	5 U	5 U	5 U	5 U
41-50	41-50	6/18/1996	216.3	0.33 U	0.28 U	6.3	210
41-50	41-50	8/19/1996	9.7	2.0 U	2.0 U	0.71 J	2.0 U
41-50	41-50	9/25/1996	34.11	0.50 U	0.50 U	12	20
41-50	41-50	11/11/1996	20.33	0.50 U	0.50 U	8.4	10
41-50	41-50	8/20/1997	11.86	0.50 U	0.50 U	6.6	3.5
41-50	41-50	3/3/1998	2120	5 U	70	1200	220
41-50	41-50	5/20/1998	1950	5 U	58	1100 D	190
41-50	41-50	8/9/1998	1901	50 U	61 D	1700 D	140 D
41-50	41-50	11/16/1998	665	5 U	25	540 J	21
41-50	41-50	2/7/1999	2280 D	100 U,D	110 D	1400 D	170 D
41-50	41-50	5/17/1999	2470 D	25 U,D	54 D	1500 D	140 D
41-50	41-50	8/14/1999	1700	5 U	53	1400 D	180
41-50	41-50	2/9/2000	962 D	25 U,D	25 U,D	620 D	52 D
41-50	41-50	2/10/2000	2287	25 U	26	1300 D	120
41-50	41-50-TR-081101	8/11/2001	1364	25 U	25 U	940	34
41-50	41-50	8/11/2001	2290	25 U	25 U	1400	120
41-50	41-50	1/29/2002	2388	5 U	18 J	1400 J	120 J
41-50	41-50-0203	2/11/2003	2260	25 U	25 U	1300	110
41-50	41-50-0204	2/13/2004	2107	5 U	7	1300 J	99
41-50	41-50-0205	2/16/2005	2083	5 U	5 U	1300 J	96
41-50	GW-072706-ILM-41-50	7/27/2006	8.2135	3.14	4.61	0.233 J	0.0845 J
4-175	4-175	1/20/1989	702.8	5 U	4.8 J	410	20
4-175R	4-175R	5/6/1994	633.9	5 U	3.7 J	380	11
4-175R	4-175R	2/28/1996	414.4	5 U	3.8 J	260	5.8
4-175R	4-175R	5/7/1996	450	50 U	50 U	280	50 U
4-175R	4-175R	8/13/1996 (Duplicate)	590.4	1.8 J	5.6	340	12
4-175R	4-175R	8/13/1996	714.4	5 U	3.4 J	400	40



**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

4-175R	4-175R	9/26/1996	549.1	5 U	5.1	320	12
4-175R	4-175R	11/6/1996	606.9	5 U	5.1	330	13
4-175R	4-175R	2/3/1997	254.7	5 U	4.8 J	140	5 U
4-175R	4-175R	5/9/1997	102.6	5 U	2.7 J	58	2.5 J
4-175R	4-175R	8/18/1997	420.7	5 U	4.6 J	220	10
4-175R	4-175R	11/21/1997	317.2	5 U	7.2	170	5 U
4-175R	4-175R	2/24/1998 (Duplicate)	439.2	0.33 U	2.3 J	240	11 J
4-175R	4-175R	2/24/1998	460.6	2 U	2.6	260	2 U
4-175R	4-175R	8/20/1998	295.3	2.0 U	1.3 J	160	14
4-175R	4-175R	2/13/1999	367.3	5.0 U	5.0 U	190	23
4-175R	4-175R	8/21/1999	365.8	5.0 U	5.0 U	190	23
4-175R	4-175R	2/12/2000	17	5 U	5 U	10	10 U
4-175R	4-175R-TR-080700	8/7/2000	5 U	5 U	5 U	5 U	5 U
4-175R	4-175R-TR-022201	2/22/2001	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-175R	4-175R-TR-081801	8/18/2001	5	5 U	5 U	5 J	5 U
4-175R	4-175R	8/18/2001	6	5 U	5 U	6	10 U
4-175R	4-175R-TR-012802	1/28/2002	5.2	5.0 U	5.0 U	5.0 U	5.2
4-175R	4-175R	1/28/2002	39 J	6 J	10 J	23 J	10 UJ
4-175R	4-175R-TR-080402	8/4/2002	5 U	5 U	5 U	5 U	10 U
4-175R	4-175R	2/1/2003	6	5 U	5 U	6	10 U
4-175R	4-175R-0203	2/4/2003	5 U	5 U	5 U	5 U	10 U
4-175R	4-175-0803	8/20/2003	658.4	5 U	4.0 J	380	15
4-175R	4-175R-0204	2/9/2004	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-175R	GW-040406-TR-4-175R	4/4/2006	390	50 U	50 U	50 U	390
4-175R	GW-072710-CM-FD-012	7/27/2010 (Duplicate)	27.845	12.1	0.658	12.9	1.97
4-175R	GW-072710-CM-4-175R	7/27/2010	10663.77 J	5650 J	3870 J	480 J	594 J
41C-100	WG-071612-BW-41C-100-500	7/16/2012	119000	14000	72000	28000	2500
41C-25	WG-071612-BW-41C-25-067	7/16/2012	119000	14000	69000	33000 J	3000
41C-50	WG-071612-BW-41C-50-068	7/16/2012	86100	8700	45000	28000	4400
41C-75	WG-071612-BW-41C-75-069	7/16/2012	74100	5700	36000	28000	4400
42-25	42-25	5/9/1995	11.3	5 U	5 U	5.3	6
42-25	42-25	3/5/1996	5 U	5 U	5 U	5 U	5 U
42-25	42-25	5/20/1996	5 U	5 U	5 U	5 U	5 U
42-25	42-25	8/21/1996	49.9	11	26	5 U	5 U
42-25	42-25	11/13/1996	5 U	5 U	5 U	5 U	5 U
42-25	42-25	2/10/1997	12.4	5 U	5 U	7.5	5 U
42-25	42-25	5/20/1997	1.7	5 U	5 U	5 U	1.7 J
42-25	42-25	8/22/1997	5.9	5 U	5 U	5 U	5 U
42-25	42-25	11/2/1997	8.6	5 U	5 U	5 U	3.7 J
42-25	42-25	2/13/1998	7.4	5 U	5 U	2.7 J	4.7 J
42-25	42-25	5/18/1998	18	5 U	5 U	5 U	5 U
42-25	42-25	8/5/1998	5 U	5 U	5 U	5 U	5 U
42-25	42-25	11/12/1998	5.3	2 U	2 U	3.5	1.8 J
42-25	42-25	2/2/1999	0.862	0.066 U	0.062 J	0.21 J	0.59 J
42-25	42-25	8/12/1999	2.5	2.0 U	2.0 U	1.0 J	1.5 J
42-25	42-25	11/9/1999	5 U	5 U	5 U	5 U	10 U
42-25	42-25	2/3/2000	5 U	5 U	5 U	5 U	10 U
42-25	42-25	5/11/2000	5 UJ	5 UJ	5 UJ	5 UJ	10 UJ
42-25	42-25	11/8/2000	5 U	5 U	5 U	5 U	10 U
42-25	42-25-TR	11/8/2000	5 U	5 U	5 U	5 U	5 U
42-25	42-25	2/13/2001	5 U	5 U	5 U	5 U	10 U
42-25	42-25-TR-080801	8/8/2001	5 U	5 U	5 U	5 U	5 U
42-25	42-25	8/8/2001	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
42-25	42-25	1/22/2002	25 U	25 U	25 U	25 U	25 U
42-25	42-25	2/1/2003	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
42-25	42-25-0205	2/21/2005	5 U	5 U	5 U	5 U	10 U
42-25	42-25-0505	5/10/2005	5 U	5 U	5 U	5 U	5 U
42-25	GW-040506-TR-42-25	4/5/2006	3810	100 U	100 U	110	3700
42-25	WG-081012-LP-42-25-074	8/10/2012	1040.42	4	10	16	1000
42-50	42-50	8/8/1992	5 U	5 U	5 U	5 U	5 U
42-50	42-50	11/10/1992	5 U	5 U	5 U	5 U	5 U
42-50	42-50	2/4/1993	5 U	5 U	5 U	5 U	5 U
42-50	42-50	8/9/1993	5 U	5 U	5 U	5 U	5 U
42-50	42-50	2/4/1994	5 U	5 U	5 U	5 U	5 U
42-50	42-50	8/11/1994	5 U	5 U	5 U	5 U	5 U
42-50	42-50	11/1/1994	5 U	5 U	5 U	5 U	5 U
42-50	42-50	5/9/1995	5 UJ	5 U	5 UJ	5 U	5 UJ
42-50	42-50	8/4/1995	5 U	5 U	5 U	5 U	5 U
42-50	42-50	8/21/1996	5 U	5 U	5 U	5 U	5 U
42-50	42-50	11/13/1996	5 U	5 U	5 U	5 U	5 U
42-50	42-50	2/10/1997	5.3	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

42-50	42-50	5/20/1997	5 U	5 U	5 U	5 U	5 U
42-50	42-50	8/22/1997	5 U	5 U	5 U	5 U	5 U
42-50	42-50	11/2/1997	4	5 U	5 U	4.0 J	5 U
42-50	42-50	2/13/1998	5 U	5 U	5 U	5 U	5 U
42-50	42-50	5/18/1998	0.41	0.066 U	0.21 J	0.20 J	0.14 U
42-50	42-50	8/5/1998 (Duplicate)	7.97	0.47 J	3.2	3.9	2.0 U
42-50	42-50	11/12/1998	5.89	2.0 U	2.6	3	2.0 U
42-50	42-50	2/2/1999	0.59	0.50 U	0.50 U	0.10 J	0.50 U
42-50	42-50	5/18/1999	26	5 U	5 U	16	10 U
42-50	42-50	8/12/1999	60	5 U	9	32	10 U
42-50	42-50	11/9/1999	29	5 U	5 U	17	10 U
42-50	42-50	2/4/2000	39	5 U	5 U	15	10 U
42-50	42-50-TR-021301	2/13/2000	63	5.0 U	6	33	5.0 U
42-50	42-50	5/13/2000	34 J	5 UJ	5 UJ	34 J	10 UJ
42-50	42-50	5/15/2000	23	5 U	5	18	10 U
42-50	42-50-TR-080700	8/7/2000	52	5 U	5	26	5 U
42-50	42-50-TR	11/8/2000	41	5.0 U	5.0 U	23	5.0 U
42-50	42-50	11/8/2000	83	7	38	19	10 U
42-50	42-50	2/13/2001	31	5 U	5 U	17	10 U
42-50	42-50-TR-021301	2/13/2001	36	5 U	6	17	5 U
42-50	42-50-TR-051501	5/15/2001	55	5 U	12 J	25 J	10 U
42-50	42-50	8/8/2001	32	5 U	5 U	18	10 U
42-50	42-50-TR-080801	8/8/2001	43	5 U	5 U	25	5 U
42-50	42-50-TR-012202	1/22/2002	32	5.0 U	5.0 U	18	5.0 U
42-50	42-50	1/22/2002	33	5 U	5 U	17	5.0 U
42-50	42-50	2/1/2003	34	5 U	5 U	18	5.0 U
42-50	42-50-0203	2/11/2003	54.8	5.0 U	5.3	24	5.0 U
42-50	42-50-0204	2/14/2004	46.4	5.0 U	5.4	22	5.0 U
42-50	WG-081012-LP-42-50-075	8/10/2012	256000	100000	110000	36000	9300
4-25R	4-25R	2/13/1996	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	5/6/1996	221	5 U	17	120	5 U
4-25R	4-25R	8/12/1996	26	5 U	5 U	17	5 U
4-25R	4-25R	9/26/1996	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	11/6/1996	17	5 U	5 U	11	5 U
4-25R	4-25R	2/3/1997	20	5 U	5 U	14	5 U
4-25R	4-25R	2/3/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	5/8/1997	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	5/8/1997 (Duplicate)	5 UJ	5 UJ	5 U	5 U	5 U
4-25R	4-25R	8/28/1997	6	5 U	5 U	6	5 U
4-25R	4-25R	8/28/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	11/21/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	2/17/1998	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	3/1/1998	173	5 U	5 U	130	5 U
4-25R	4-25R	4/1/1998	10	5 U	5 U	10	5 U
4-25R	4-25R	7/1/1998	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	9/1/1998	76	5 U	5 U	57	5 U
4-25R	4-25R	10/1/1998	133 J	5 UJ	5 UJ	100 J	5 UJ
4-25R	4-25R	11/18/1998	9.3	5 U	5 U	5 U	5 U
4-25R	4-25R	12/1/1998	15 J	5 U	5 U	5 U	5 UJ
4-25R	4-25R	1/1/1999	18.3	5 U	5 U	13	5 U
4-25R	4-25R	2/1/1999	18.1	5 U	5 U	13	5 U
4-25R	4-25R	2/13/1999	31.4	5 U	4.9 J	12	5 U
4-25R	4-25R	5/1/1999	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	8/1/1999	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	8/21/1999	12	5 U	5 U	5 U	5 U
4-25R	4-25R	2/1/2000	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	2/12/2000	92	5 U	5 U	58	5 U
4-25R	4-25R-TR-080700	8/7/2000	190	5 U	5 U	190	10 U
4-25R	4-25R-TR-022201	2/22/2001	180	5 U	5 U	180	10 U
4-25R	4-25R-TR-081801	8/18/2001	350 J	5 UJ	5 UJ	5 UJ	350 DJ
4-25R	4-25R	8/18/2001	5 U	5 U	5 U	5 U	5 U
4-25R	4-25R	1/28/2002	35.2	2 U	2 U	1.2 J	2 U
4-25R	4-25R-TR-012802	1/28/2002	170	5 U	5 U	170	10 U
4-25R	4-25R-TR-080402	8/4/2002	260	5 U	5 U	260 D	10 U
4-25R	4-25R-DC-111102	11/11/2002	11.48	0.50 U	0.14 J	8.6	0.6
4-25R	4-25R	2/1/2003	4.13	0.066 U	0.10 J	3.3	0.14 U
4-25R	4-25-0803	8/20/2003	32	5.0 U	5.0 U	17	5.0 U
4-25R	FD7-0803	8/20/2003 (Duplicate)	101310	140	13000	64000	23000
4-25R	4-25R-0204	2/9/2004	9.35	2.0 U	2.0 U	2.0 U	2.0 U
4-25R	GW-080106-ILM-4-25R	8/1/2006	2.3	0.15 U	0.16 U	2.3 J	0.23 U
43-25	43-25	8/8/1992	180 D	10 U,D	10 U,D	180 D	20 U,D

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

43-25	43-25	11/11/1992		130	5 U	5 U	130	10 U
43-25	43-25	2/5/1993	(Duplicate)	170	5 U	5 U	170	10 U
43-25	43-25	2/5/1993		182	5 U	5 U	170	10 U
43-25	43-25	8/10/1993		144	5 U	5 U	120	24
43-25	43-25	2/4/1994		118	5.0 U	5.0 U	100	18
43-25	43-25	8/11/1994		122	5.0 U	5.0 U	100	22
43-25	43-25	11/2/1994		99	5.0 U	5.0 U	79	20
43-25	43-25	5/9/1995	(Duplicate)	97	5.0 U	5.0 U	77	20
43-25	43-25	5/9/1995		115	5.0 U	5.0 U	90	25
43-25	43-25	8/7/1995		62	5 U	5 U	62	5 U
43-25	43-25	2/7/1996		112	5 U	5 U	90 J	22 J
43-25	43-25	5/15/1996		61	5 U	5 U	48	13
43-25	43-25	5/15/1996	(Duplicate)	66	5 U	5 U	50 J	16 J
43-25	43-25	8/19/1996		43	5 U	5 U	29	14
43-25	43-25	11/12/1996		51	5 U	5 U	34	17
43-25	43-25	2/10/1997		5 U	5 U	5 U	5 U	5 U
43-25	43-25	5/16/1997		5429	24	59	4500	430
43-25	43-25	8/22/1997		2660	100 U	100 U	2100 J	170 J
43-25	43-25	11/3/1997		7500	100 U	100 U	6100	710
43-25	43-25	2/10/1998		10900	100 U	100 U	8200	1500
43-25	43-25	5/18/1998		6340	100 U	100 U	4300	1300
43-25	43-25	8/4/1998		9500	100 U	100 U	6600	1900
43-25	43-25	11/6/1998		15600	100 U	100 U	12000	2000
43-25	43-25	2/2/1999		17300	250 U	250 U	12000	3600
43-25	43-25	5/18/1999		5500	250 U	250 U	3000	2000
43-25	43-25	8/10/1999		10800	250 U	250 U	7200	2500
43-25	43-25	11/9/1999		245	5 U	5 U	94	120
43-25	43-25	2/2/2000		5140	50 U	50 U	2200	2400
43-25	43-25	5/11/2000		7090	50 U	50 U	1900	4300
43-25	43-25-TR-080200	8/2/2000		8845	120	110	430	6600
43-25	43-25	11/11/2000		810	50 U	50 U	390	300
43-25	43-25-TR-021701	2/17/2001		14972.6	270	250	630	12000
43-25	43-25-TR-051801	5/18/2001		19314 J	160	120	2500	14000 J
43-25	43-25-TR-080801	8/8/2001		6237	88	62	87	4900
43-25	43-25	8/8/2001		6070 J	50 UJ	50 U	2600	2600
43-25	43-25-TR-012202	1/22/2002		10620	210	190	620	7900
43-25	43-25	1/22/2002		6900 J	50 UJ	50 U	2800	3000
43-25	43-25	4/30/2002		9300	250 U	250 U	2600	5400
43-25	43-25-TR-043002	4/30/2002		27824 J	160 J	150 J	2800 J	22000 J
43-25	43-25-TR-080102	8/1/2002		8791	130	110	440	6600
43-25	43-25-DC-110802	11/8/2002		13008	180	170	1100	9300
43-25	43-25-0203	2/9/2003		9400	250 U	250 U	2600	5500
43-25	43-25-0503	5/7/2003		4990	250 U	250 U	630	3400
43-25	43-25-0803	8/18/2003		17320	650	570	3400	10000
43-25	43-25-0204	2/7/2004		4630	16 U	10 U	270	3400
43-25	43-25-0504	5/11/2004		9700	250 U	250 U	2600	5500
43-25	43-25-0804	8/14/2004		15600	100 U	100 U	4100	9300
43-25	43-25-0505	5/10/2005		11900	250 U	250 U	2500	7500
43-25	GW-040506-TR-43-25	4/5/2006		7870	100 U	100 U	270	7600
43-50	43-50	8/8/1992	(Duplicate)	7600	67	43 J	180	6000
43-50	43-50	8/8/1992		8560 J	160	160	140	6900
43-50	43-50	11/11/1992		6500	250 U	250 U	250 U	5500
43-50	43-50	2/5/1993		2440	190	150	50 U	1500
43-50	43-50	8/10/1993		5525.7	200	180	43	4200
43-50	43-50	2/4/1994		5662	200	190	44	4300
43-50	43-50	11/2/1994		3098.4	190	110	20	2000
43-50	43-50	5/9/1995		2780.9	160	100	19	1700
43-50	43-50	8/7/1995		2095	310	300	26 J	720
43-50	43-50	2/7/1996		856.4	76	52	4.4 J	430
43-50	43-50	5/15/1996		757.8	73	56	4.0 J	330
43-50	43-50	8/19/1996		598.5	120	91	5.3	120
43-50	43-50	11/12/1996		988.58	130	150	11	310
43-50	43-50	5/16/1997		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
43-50	43-50	8/19/1997		0.36	0.50 U	0.50 U	0.24 J	0.50 U
43-50	43-50	11/3/1997		5 U	5 U	5 U	5 U	10 U
43-50	43-50	2/10/1998		5 U	5 U	5 U	5 U	10 U
43-50	43-50	5/18/1998		5 U	5 U	5 U	5 U	10 U
43-50	43-50	8/10/1998		5 U	5 U	5 U	5 U	10 U
43-50	43-50	11/6/1998		6 J	5 UJ	5 UJ	5 UJ	10 UJ
43-50	43-50	2/2/1999		5 U	5 U	5 U	5 U	10 U
43-50	43-50	5/18/1999		5 U	5 U	5 U	5 U	10 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

43-50	43-50	5/18/1999	(Duplicate)	5 U	5 U	5 U	5 U	10 U
43-50	43-50	8/10/1999		5	5 U	5	5 U	10 U
43-50	43-50	11/9/1999		5 U	5 U	5 U	5 U	10 U
43-50	43-50	2/7/2000		5.0 U	5 U	5 U	5 U	5.0 U
43-50	43-50	5/13/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
43-50	43-50	5/15/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
43-50	43-50-TR	11/14/2000		21	9	5 U	5	7
43-50	43-50	11/14/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
43-50	43-50-TR-021701	2/17/2001		34	5 J	5 U	9	15
43-50	43-50-TR-051801	5/18/2001		22	5 U	5 U	5 U	15
43-50	43-50-TR-080801	8/8/2001		6	5 U	5 U	5 U	6 U
43-50	43-50	8/8/2001		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
43-50	43-50-TR-012202	1/22/2002		21	9	5 U	5	7
43-50	43-50	1/22/2002		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
43-50	43-50-TR-050402	5/4/2002		21	5 U	5 U	5 U	14
43-50	43-50	5/4/2002		5 U	5 U	5 U	5 U	5 U
43-50	43-50-TR-080602	8/6/2002		6.4 U	6.4 U	5 U	6.4 U	6.4 U
43-50	43-50-DC-110802	11/8/2002		89	24	12	23	30
43-50	43-50-0203	2/11/2003		5 U	5 U	5 U	5 U	10 U
43-50	43-50-0803	8/18/2003		171	31	10 U	110	12
43-50	43-50-1103	11/17/2003		12	12	10 U	10 U	10 U
43-50	43-50-0204	2/14/2004		5 U	5 U	5 U	5 U	5 U
43-50	43-50-0504	5/11/2004		5 U	5 U	5 U	5 U	5 U
43-50	43-50-1104	11/13/2004		729	49	18	300	270
43-50	43-50-0205	2/8/2005		5 U	5 U	5 U	5 U	5 U
43-50	43-50-0505	5/11/2005		766	5 U	21	610	57
43-50	GW-040506-TR-43-50	4/5/2006		6450	100 U	100 U	550	5900
44-25	44-25	8/8/1992		14.5	5 U	5 U	5 U	9.1
44-25	44-25	11/10/1992		14.4	5 U	5 U	5 U	8.3
44-25	44-25	2/5/1993		13.8	5 U	5 U	5 U	8.4
44-25	44-25	8/10/1993		18	5 U	5 U	5 U	10
44-25	44-25	2/7/1995		18.9	5 U	5 U	5 U	12 J
44-25	44-25	8/4/1995		46	5 U	5 U	5 U	31
44-25	44-25	2/8/1996		18 J	5 UJ	5 UJ	5 UJ	18
44-25	44-25	5/9/1996		11.5	5 U	5 U	5 U	5.8
44-25	44-25	5/20/1996		13.6	5 U	5 U	5 U	6.1
44-25	44-25	8/20/1996		10.7	5 U	5 U	5 U	4.3 J
44-25	44-25	11/13/1996		13.1	5 U	5 U	5 U	5 U
44-25	44-25	2/10/1997		5 U	5 U	5 U	5 U	5 U
44-25	44-25	2/10/1997	(Duplicate)	5 U	5 U	5 U	5 U	5 U
44-25	44-25	5/19/1997		5 U	5 U	5 U	5 U	5 U
44-25	44-25	8/25/1997		5 U	5 U	5 U	5 U	5 U
44-25	44-25	11/1/1997		15	5 U	5 U	5 U	5 U
44-25	44-25	2/13/1998		24	5 U	5 U	5 U	5 U
44-25	44-25	8/5/1998		5.2	2 U	2 U	2 U	2 U
44-25	44-25	11/9/1998		0.82	0.11 J	0.21 J	0.13 J	0.24 J
44-25	44-25	5/18/1999		9.27	2.0 U	2.0 U	2.0 U	2.0 U
44-25	44-25	8/13/1999		24.41	0.50 U	0.45 J	21	0.50 U
44-25	GW-042106-TR-FD	4/21/2006	(Duplicate)	2400	100 U	100 U	600	1800
44-25	GW-171208-MM-44-25	12/17/2008		57.6	0.15 U	0.16 U	4.6 J	53
44-25	WG-081012-ALK-44-25-077	8/10/2012		423150	12000	87000	320000 J	390 J
44-50	44-50	8/11/1994		5 U	5 U	5 U	5 U	5 U
44-50	44-50	5/10/1995		5 U	5 U	5 U	5 U	5 U
44-50	44-50	8/4/1995		5 U	5 U	5 U	5 U	5 U
44-50	44-50	2/13/1996		5 U	5 U	5 U	5 U	5 U
44-50	44-50	8/20/1996		5 U	5 U	5 U	5 U	5 U
44-50	44-50	9/24/1996		5 U	5 U	5 U	5 U	5 U
44-50	44-50	11/13/1996		5 U	5 U	5 U	5 U	5 U
44-50	44-50	2/10/1997		5 U	5 U	5 U	5 U	5 U
44-50	44-50	5/19/1997		5	5 U	5 U	5 U	5
44-50	44-50	8/20/1997		5 U	5 U	5 U	5 U	5 U
44-50	44-50	11/1/1997		5 U	5 U	5 U	5 U	5 U
44-50	44-50	2/13/1998		6	5 U	5 U	5 U	6
44-50	44-50	8/5/1998		6	5 U	5 U	5 U	6
44-50	44-50	11/12/1998		6	5 U	5 U	5 U	6
44-50	44-50	2/2/1999	(Duplicate)	7	5 U	5 U	5 U	7
44-50	44-50	2/2/1999		5 U	5 U	5 U	5 U	5 U
44-50	44-50	5/18/1999		12	5 U	5 U	5 U	12
44-50	44-50	8/13/1999		9	5 U	5 U	5 U	9
44-50	44-50	11/9/1999		7 J	5 UJ	5 U	5 U	7
44-50	44-50	2/7/2000		10	5 U	5 U	5 U	10

TABLE 4.3

**SUMMARY OF VOCs  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

44-50	44-50	5/15/2000	10 J	5 U	5 U	5 U	10
44-50	44-50-TR-080900	8/9/2000	5 U	5 U	5 U	5 U	10 U
44-50	44-50-TR	11/15/2000	2.488	0.066 U	0.055 U	0.088 J	2.4
44-50	44-50	11/15/2000	5 U	5 U	5 U	5 U	5 U
44-50	44-50-TR-051601	5/16/2001	7	5 U	5 U	7	10 U
44-50	44-50-TR-081001	8/10/2001	5 U	5 U	5 U	5 U	10 U
44-50	44-50	1/25/2002	5 U	5 U	5 U	5 U	5 U
44-50	44-50-TR-012602	1/26/2002	3.61	0.50 U	0.50 U	0.11 J	0.10 J
44-50	44-50-0204	2/9/2004	5.8	5 U	5 U	5.8	5 U
44-50	GW-151208-MM-44-50	12/15/2008	60413	0.15 U	0.16 U	1100	59000 J
44-50	WG-081112-JN-44-50-078	8/11/2012	59830	220 J	2600	41000	15000
4-45R	4-45R	5/9/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-45R	4-45R	11/2/1994	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-45R	4-45R	2/14/1996	135	5 U	5 U	5 U	135
4-45R	4-45R	2/14/1996	(Duplicate) 5 U	5 U	5 U	5 U	10 U
4-45R	4-45R	5/6/1996	5 U	5 U	5 U	5 U	5 U
4-45R	4-45R	8/12/1996	5 U	5 U	5 U	5 U	5 U
4-45R	4-45R	9/26/1996	5 U	5 U	5 U	5 U	5 U
4-45R	4-45R	11/6/1996	16	5 U	16	5 U	5 U
4-45R	4-45R	2/3/1997	203	8	160	21	5 U
4-45R	4-45R	5/8/1997	439	16	360	33	5 U
4-45R	4-45R	5/8/1997	(Duplicate) 579	14	500	44	5 U
4-45R	4-45R	8/28/1997	338	14	200	68	22
4-45R	4-45R	11/21/1997	60	5 U	37	7	16
4-45R	4-45R	2/17/1998	158	9	84	23	42
4-45R	4-45R	3/1/1998	192	20	120	19	22
4-45R	4-45R	4/1/1998	146	10	100	16	14
4-45R	4-45R	5/6/1998	98	7	59	16	16
4-45R	4-45R	6/1/1998	16	5 U	11	5 U	5
4-45R	4-45R	7/1/1998	6	5 U	6	5 U	5 U
4-45R	4-45R	8/7/1998	5	5 U	5 J	5 U	5 U
4-45R	4-45R	9/1/1998	32	5 U	6 J	13 J	13 J
4-45R	4-45R	10/1/1998	24	5 U	12	5 U	12
4-45R	4-45R	11/18/1998	17	5 U	8	5 U	9
4-45R	4-45R	12/1/1998	26 J	5 UJ	8	5 U	18
4-45R	4-45R	1/1/1999	33	5 U	18	7	8
4-45R	4-45R	2/1/1999	23.3 J	5 U	8.2	4.5 J	9.5
4-45R	4-45R	2/13/1999	(Duplicate) 52	5 U	23	11	18
4-45R	4-45R	5/1/1999	34.1	5 U	13	8.1	13
4-45R	4-45R	8/1/1999	13.4	5 U	8.2	5 U	5.2
4-45R	4-45R	8/21/1999	16	5 U	11	5 U	5
4-45R	4-45R-TR-080700	8/7/2000	5 U	5 U	5 U	5 U	5 U
4-45R	4-45R-TR-022201	2/22/2001	5.7	5 U	3.1 J	2.0 J	5 U
4-45R	4-45R	8/18/2001	3.4	5 U	3.4 J	5 U	5 U
4-45R	4-45R-TR-081801	8/18/2001	6.9	5 U	2.5 J	5 U	5 U
4-45R	4-45R-TR-012802	1/28/2002	9.6	5 U	3.0 J	3.3 J	3.3 J
4-45R	FD2-TR-080402	8/4/2002	(Duplicate) 0.263	0.015 U	0.02 U	0.015 U	0.263
4-45R	4-45R-TR-080402	8/4/2002	2.9	5 U	5 U	5 U	2.9 J
4-45R	4-45R-DC-111102	11/11/2002	14.8	5 U	6.1	5 U	5.3
4-45R	4-45R	2/1/2003	32.6	5 U	14	5.6	13
4-45R	4-45R-0203	2/4/2003	22.3 J	5 UJ	11 J	5.6 J	5.7 J
4-45R	FD9-0803	8/20/2003	(Duplicate) 48.191	0.151 J	1.1	5.26	0.922
4-45R	4-45-0803	8/20/2003	2 U	2 U	2 U	2 U	2 U
4-45R	4-45R-0204	2/9/2004	8.2	5 U	5.2	5 U	5 U
4-45R	GW-041806-TS-4-45R	4/18/2006	5250	100 U	100 U	550	4700
4-45R	GW-073106-ILM-FDUP	7/31/2006	(Duplicate) 6	0.15 U	0.16 U	0.16 U	0.23 U
4-45R	GW-073106-ILM-4-45R	7/31/2006	6.8	0.15 U	0.16 U	0.16 U	0.23 U
45-100	45-100	6/3/1998	23.2	5 U	4.6 J	3.2 J	2.4 J
45-100	45-100	8/9/1998	26.4	5 U	4.8 J	3.6 J	3.0 J
45-100	45-100	11/12/1998	(Duplicate) 16.5	5 U	3.2 J	3.3 J	5 U
45-100	45-100	2/3/1999	29.9	5 U	3.9 J	2.6 J	7.4
45-100	45-100	5/20/1999	35.3	5 U	5.2	3.8 J	8.3
45-100	45-100	8/13/1999	12.3	2 U	3.4	2.8	5
45-100	45-100	11/9/1999	6.29	0.76 J	4.1	1.0 U	1.1
45-100	45-100	2/9/2000	0.52	0.50 U	0.50 U	0.50 U	0.50 U
45-100	45-100-TR-080600	8/6/2000	320	5 U	5 U	5 U	320
45-100	45-100	11/14/2000	8.72	0.50 U	0.50 U	0.070 J	4.4
45-100	45-100-TR	11/14/2000	22	5.0 U	5.0 U	5.0 U	22
45-100	45-100-TR-021401	2/14/2001	5 U	5 U	5 U	5 U	5 U
45-100	45-100-TR-051601	5/16/2001	340	5 U	5 U	5 U	340
45-100	45-100-TR-081501	8/15/2001	650	5 U	5 U	5 U	650

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

45-100	45-100-TR-012602	1/26/2002	74	5.0 U	5.0 U	5.0 U	74
45-100	45-100	1/26/2002	5 U	5 U	5 U	5 U	10 U
45-100	45-100	2/1/2003	5 U	5 U	5 U	5 U	10 U
45-100	45-100-0203	2/12/2003	5 U	5 U	5 U	5 U	10 U
45-100	45-100-0204	2/11/2004	7	5.0 U	5.0 U	5.0 U	7
45-100	GW-041806-TR-45-100	4/18/2006	6760	100 U	100 U	860 J	5900 J
45-100	GW-071306-TR-FD1	7/13/2006 (Duplicate)	2.32	0.0578 U	1.87	0.45 J	0.0604 U
45-100	GW-071306-TR-45-100	7/13/2006	9.863	0.0578 U	0.433 J	9.43	0.0604 U
45-100	GW-021609-TG-MW45-GW	2/16/2009	379.7	0.15 U	0.16 U	23	0.23 U
45-100	GW-070609-TG-MW45-GW	7/6/2009	0.181 UJ	0.144 UJ	0.126 UJ	0.154 UJ	0.162 UJ
45-100	WG-081012-JN-45-100-080	8/10/2012	260500	170000	88000	2500	23.00 U
45-50	45-50	8/8/1992	650	25 U	25 U	25 U	650
45-50	45-50	2/8/1993	1300	25 U	25 U	25 U	1300
45-50	45-50	5/12/1993	870	25 U	25 U	25 U	870
45-50	45-50	11/5/1993	2021	5 U	5 U	21	2000
45-50	45-50	2/8/1994	22920	250 U	250 U	14000	8100
45-50	45-50	5/5/1994	22660	250 U	250 U	14000	8000
45-50	45-50	8/12/1994	29200	250 U	250 U	16000	12000
45-50	45-50	11/4/1994	27940	250 U	250 U	15000	12000
45-50	45-50	2/8/1995	16290	250 U	250 U	8000	7800
45-50	45-50	2/8/1995 (Duplicate)	16670	250 U	250 U	8000	8200
45-50	45-50	5/11/1995	22010	250 U	250 U	8200	13000
45-50	45-50	5/11/1995 (Duplicate)	23080	250 U	250 U	8400	14000
45-50	45-50	8/7/1995	28720	250 U	250 U	14000	14000
45-50	45-50	2/12/1996	56070	250 U	250 U	33000	22000
45-50	45-50	5/17/1996	32540	250 U	250 U	22000	10000
45-50	45-50	5/17/1996 (Duplicate)	80360	250 U	250 U	55000 J	23000
45-50	45-50	9/4/1996	101300	1000 U	1000 U	78000	21000
45-50	45-50	11/21/1996	107400	1000 U	1000 U	83000	22000
45-50	45-50	11/21/1996 (Duplicate)	114500	1000 U	1000 U	90000	22000
45-50	45-50	2/19/1997	112500	1000 U	1000 U	85000	25000
45-50	45-50	2/19/1997 (Duplicate)	137800	2000 U	2000 U	110000	25000
45-50	45-50	5/15/1997	128900	2000 U	2000 U	100000	26000
45-50	45-50	8/28/1997	151700	2000 U	2000 U	120000	28000
45-50	45-50	11/4/1997	153800 J	2000 UJ	2000 U	120000	30000
45-50	45-50	2/11/1998	171100	5000 U	5000 U	140000	26000
45-50	45-50	5/29/1998	162000	5000 U	5000 U	130000	27000
45-50	45-50	8/9/1998	25930	160 U	100 U	20000	5400
45-50	45-50	11/12/1998	43200 J	1000 U	1000 U	35000	7000
45-50	45-50	2/3/1999	40000 J	2500 U	2500 U	33000	7000
45-50	45-50	8/13/1999	92000	5000 U	5000 U	68000	24000
45-50	DUP-6	11/9/1999 (Duplicate)	3.8	0.50 U	0.50 U	0.50 U	0.50 U
45-50	45-50	11/9/1999	118000	2500 U	2500 U	90000	28000
45-50	45-50	2/9/2000	120000	2500 U	2500 U	91000	29000
45-50	45-50	5/15/2000	128900	2500 U	2500 U	100000	26000
45-50	45-50-TR-080600	8/6/2000	170100 J	2500 UJ	2500 UJ	130000 J	36000 J
45-50	45-50-TR	11/14/2000	137120	1000 U	1000 U	100000	33000
45-50	45-50-TR-021401	2/14/2001	167820	1000 U	1000 U	130000	34000
45-50	45-50-TR-051601	5/16/2001	165780	1000 U	1000 U	130000	32000
45-50	45-50	8/15/2001	128100	2500 U	2500 U	100000	25000
45-50	45-50-TR-081501	8/15/2001	134222 J	5 UJ	5 UJ	110000 J	21000 J
45-50	45-50-0204	2/11/2004	132310	500 U	500 U	97000	32000
45-50	GW-041806-TR-45-50	4/18/2006	3490	16 U	10 U	290 J	3200 J
45-50	GW-071306-TR-45-50	7/13/2006	2.683	0.0578 U	2.16	0.523 J	0.0604 U
45-50	WG-081012-JN-45-50-079	8/10/2012	314720 J	25000 J	180000	100000	7100 J
46-100	46-100	5/29/1998	139280	500 U	500 U	110000	25000
46-100	46-100	5/29/1998 (Duplicate)	146600	500 U	500 U	120000	22000
46-100	46-100	8/13/1998 (Duplicate)	138540	1000 U	1000 U	110000	22000
46-100	46-100	8/13/1998	139400	250 U	250 U	110000	25000
46-100	46-100	11/7/1998	110460	1000 U	1000 U	88000	19000
46-100	46-100	2/3/1999	99050	1000 U	1000 U	77000	19000
46-100	46-100	5/17/1999	106510	1000 U	1000 U	84000	19000
46-100	46-100	8/18/1999	94560	1000 U	1000 U	71000	19000
46-100	46-100	11/4/1999	R	R	R	62000 J	14000 J
46-100	46-100	2/7/2000	63950	250 U	250 U	48000	14000
46-100	46-100	5/11/2000	59810	100 U	100 U	44000	14000
46-100	46-100	11/13/2000	59649	2 U	9.8	44000	14000
46-100	46-100	8/14/2001	46060	66 U	55 U	28000	17000
46-100	46-100	1/25/2002	6236	100 U	100 U	5000	970
46-50	46-50	8/16/1993	5 U	5 U	5 U	5 U	5 U
46-50	46-50	11/5/1993	5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

46-50	46-50	2/9/1994	5 U	5 U	5 U	5 U	5 U
46-50	46-50	8/12/1994	3.5	5 U	5 U	3.5 J	5 U
46-50	46-50	10/31/1994	5 U	5 U	5 U	5 U	5 U
46-50	46-50	2/14/1995	5 U	5 U	5 U	5 U	5 U
46-50	46-50	5/17/1995	5 U	5 U	5 U	5 U	5 U
46-50	46-50	8/9/1995	7.5	5 U	5 U	5 U	5 U
46-50	46-50	2/12/1996	5 U	5 U	5 U	5 U	5 U
46-50	46-50	5/15/1996	18.3	2.8 J	3.9 J	8.9	5 U
46-50	46-50	8/16/1996	1.31	5 U	0.73 J	0.58 J	5 U
46-50	46-50	8/16/1996 (Duplicate)	5 U	5 U	5 U	5 U	5 U
46-50	46-50	11/25/1996	5 U	5 U	5 U	5 U	5 U
46-50	46-50	2/7/1997	5 U	5 U	5 U	5 U	5 U
46-50	46-50	2/7/1997 (Duplicate)	5 U	5 U	5 U	5 U	5 U
46-50	46-50	5/14/1997	15.6	5 U	5 U	5 U	9.4
46-50	46-50	8/13/1997	19.8	5 U	5 U	3.8 J	5 U
46-50	46-50	11/22/1997	5.1	2 U	2 U	5.1	2 U
46-50	46-50	2/27/1998	0.17	0.066 U	0.055 U	0.062 U	0.17 J
46-50	46-50	8/13/1998	4.5	2.0 U	2.0 U	2.4	2.1
46-50	46-50-TR-080200	8/2/2000	89	5 U	5 U	5 U	89
46-50	46-50-TR	11/13/2000	0.89	2.0 U	2.0 U	0.89 J	2.0 U
46-50	46-50-TR-022301	2/23/2001	36	5 U	5 U	5 U	36
46-50	46-50-TR-051901	5/19/2001	22	5 U	5 U	5 U	22
46-50	46-50-TR-081401	8/14/2001	110	5 U	5 U	5 U	110
46-50	46-50	8/14/2001	5 U	5 U	5 U	5 U	5 U
46-50	46-50	1/25/2002	0.24	0.066 U	0.055 U	0.062 U	0.24 J
46-50	GW-041206-TR-46-50	4/12/2006	3512	25 U	25 U	290	3200
47-15	W-1002-120695-JW-008	12/6/1995	106900	12000	63000	25000	3900
48-15	W-1002-120695-JW-009	12/6/1995	121300	13000	71000	27000	3900
48-15	48-15-0304	3/16/2004	150	5 U	5 U	5 U	150
48-15	WG-081012-ALK-48-15-087	8/10/2012	313290	26000 J	190000 J	94000	1100
4-83R	4-83R	5/6/1994	494	5 U	5 U	24	470
4-83R	4-83R	2/28/1996	480	10 U	10 U	30	450
4-83R	4-83R	5/7/1996	926	5 U	5 U	26	900
4-83R	4-83R	5/7/1996 (Duplicate)	2870	25 U	25 U	370	2500
4-83R	4-83R	9/26/1996	2750 J	50 UJ	50 U	250	2500
4-83R	4-83R	11/6/1996	5670	250 U	250 U	970	4700
4-83R	4-83R	2/3/1997	6900	250 U	250 U	1200	5700
4-83R	4-83R	5/8/1997	17000	80 U	50 U	3000	14000
4-83R	4-83R	8/18/1997	17000	80 U	50 U	3000	14000
4-83R	4-83R	2/25/1998	17620	250 U	250 U	7500 U	9500 U
4-83R	4-83R	3/1/1998	17500	500 U	500 U	7500	10000
4-83R	4-83R	4/1/1998	25290	250 U	250 U	13000	12000
4-83R	4-83R	5/6/1998	27000	500 U	500 U	14000	13000
4-83R	4-83R	5/6/1998 (Duplicate)	28000	500 U	500 U	15000	13000
4-83R	4-83R	6/1/1998	35000 J	500 U	500 U	24000	11000
4-83R	4-83R	8/7/1998	33400	500 U	500 U	22000	10000
4-83R	4-83R	10/1/1998	32010	180 J	290	20000	11000
4-83R	4-83R	11/8/1998	33480	500 U	500 U	21000	12000
4-83R	4-83R	1/1/1999	12271	250 U	250 U	4800	7400
4-83R	4-83R	2/1/1999	12880 J	500 UJ	500 UJ	4800 J	7100
4-83R	4-83R	2/13/1999	15780	250 U	250 U	9100	6300
4-83R	4-83R	5/1/1999	11750	250 U	250 U	6400	5200
4-83R	4-83R	8/1/1999	11872	50 U	50 U	4900	6800
4-83R	4-83R	8/21/1999 (Duplicate)	10200	250 U	250 U	3300	6900
4-83R	4-83R	8/21/1999	10988	100 U	100 U	4800	6000
4-83R	4-83R	2/1/2000	10580	250 U	250 U	2700	7700
4-83R	4-83R	2/12/2000	10930	50 U	50 U	2500	8300
4-83R	FD3-TR-080700	8/7/2000 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
4-83R	4-83R	8/18/2001	5686.3	5 U	5 U	990	4600
4-83R	4-83R-TR-081801	8/18/2001	5 U	5 U	5 U	5 U	10 U
4-83R	4-83R	1/28/2002	5075	50 U	50 U	940	4000
4-83R	4-83R-TR-012802	1/28/2002	7190	6.6 U	5.5 U	830	6300
4-83R	4-83R-TR-080402	8/4/2002	5076.92	2.0 U	2.0 U	210	4800
4-83R	4-83R-RW-110902	11/9/2002	5367	20 U	20 U	1000	4300
4-83R	4-83R	2/1/2003	6170	250 U	250 U	990	4800
4-83R	4-83R-0203	2/4/2003	7230	250 U	250 U	1200	5700
4-83R	4-83-0803	8/20/2003	130	5 U	5 U	5 U	130
4-83R	4-83R-0204	2/9/2004	9120	50 U	50 U	1700	7100
4-83R	FD-8-0204	2/9/2004 (Duplicate)	1110.2 J	0.15 U	22	800	280 U
4-83R	GW-040406-TR-4-83R	4/4/2006	2700	50 U	50 U	50 U	2700
4-83R	GW-080106-ILM-4-83R	8/1/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

49-15	49-16	12/1/1995		5 U	5 U	5 U	5 U	10 U
49-15	49-16	12/1/1995	(Duplicate)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
49-15	W-1002-120595-JW-001	12/5/1995		144700	13000	70000	49000	6000
49-15	W-1002-120595-JW-002	12/5/1995	(Duplicate)	169200	15000	76000	60000	10000
49-15	FD-3-0304	3/16/2004	(Duplicate)	3.217	0.015 U	0.02 U	2.98	0.128
49-15	49-15-0304	3/16/2004		5.4	5 U	5.4	5 U	10 U
49-15	GW-113011-NH-49-15	11/30/2011		20.59	0.366 J	10.7 J	9.34	0.184 J
49-15	WG-081112-ALK-49-15-088	8/11/2012		255820	100000	110000	36000	9300
50-100	50-100R-0503	5/13/2003		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
50-15	W-1002-120595-JW-003	12/5/1995		114500	9900	53000	41000	5100
50-15	50-15-0304	3/16/2004		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
50-15	GW-120111-AK-50-15	12/1/2011		0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
50-15	GW-120111-AK-01	12/1/2011	(Duplicate)	7840.72 J	0.15 U	0.52 J	210	7600
50-15	WG-081112-ALK-50-15-089	8/11/2012		129103.4	12000	86000	17000	13000
5-100	5-100	11/3/1988		5 U	5 U	5 U	5 U	10 U
5-100	5-100	2/15/1991		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/11/1992		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/11/1992	(Duplicate)	5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/9/1993		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/14/1993		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/18/1993		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/26/1993		5 U	5 U	5 U	5 U	5 U
5-100	5-100	6/2/1993		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/8/1994		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/14/1995		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/17/1995		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/9/1996		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/13/1996		5 U	5 U	5 U	5 U	5 U
5-100	5-100	8/15/1996		8	5 U	8	5 U	5 U
5-100	5-100	11/8/1996		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/6/1997		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/13/1997		5 U	5 U	5 U	5 U	5 U
5-100	5-100	8/12/1997		5 U	5 U	5 U	5 U	5 U
5-100	5-100	11/20/1997		6	5 U	6	5 U	5 U
5-100	5-100	2/25/1998		5 U	5 U	5 U	5 U	5 U
5-100	5-100	3/1/1998		5 U	5 U	5 U	5 U	5 U
5-100	5-100	5/13/1998	(Duplicate)	5 UJ	5 U	5 U	5 U	5 U
5-100	5-100	5/13/1998		5 UJ	5 UJ	5 U	5 U	5 U
5-100	5-100	6/1/1998		5 U	5 U	5 U	5 U	5 U
5-100	5-100	7/1/1998		5 U	5 U	5 U	5 U	5 U
5-100	5-100	10/1/1998		5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
5-100	5-100	11/14/1998	(Duplicate)	5 U	5 U	5 U	5 U	5 U
5-100	5-100	11/14/1998		5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
5-100	5-100	12/1/1998		5 U	5 U	5 U	5 U	5 U
5-100	5-100	1/1/1999		5 U	5 U	5 U	5 U	5 U
5-100	5-100	2/1/1999		5.4	5 U	5 U	5 U	5 U
5-100	5-100	2/6/1999		15	5 U	5 U	5 U	5 U
5-100	5-100	5/1/1999		0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
5-100	5-100	8/1/1999		330	45	190	18	10 U
5-100	5-100	8/19/1999		14.2	5 U	8.5	5.7	10 U
5-100	5-100	11/4/1999		5 U	5 U	5 U	5 U	10 U
5-100	5-100	11/10/1999		5.0 U	5 U	5 U	5 U	5.0 U
5-100	5-100	2/4/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5-100	5-100	5/13/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5-100	5-100	5/15/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5-100	5-100-TR-080600	8/6/2000		5 U	5 U	5 U	5 U	5 U
5-100	5-100-DC	11/16/2000		5 U	5 U	5 U	5 U	5 U
5-100	5-100	11/16/2000		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5-100	5-100-TR-021501	2/15/2001		5 U	5 U	5 U	5 U	5 U
5-100	5-100-TR-051501	5/15/2001		5 U	5 U	5 U	5 U	5 U
5-100	5-100-TR-081001	8/10/2001		5 U	5 U	5 U	5 U	5 U
5-100	5-100	8/10/2001		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
5-100	5-100	1/26/2002		5 U	5 U	5 U	5 U	5 U
5-100	5-100-TR-012602	1/26/2002		5 U	5 U	5 U	5 U	5 U
5-100	5-100	4/30/2002		5 U	5 U	5 U	5 U	10 U
5-100	5-100-TR-043002	4/30/2002		5 U	5 U	5 U	5 U	5 U
5-100	5-100-DC-110602	11/6/2002		5 U	5 U	5 U	5 U	5 U
5-100	FD8-0203	2/10/2003	(Duplicate)	24283.61 J	0.61 J	41	17000	7100
5-100	5-100-0203	2/10/2003		5 U	5 U	5 U	5 U	5 U
5-100	5-100-0503	5/13/2003		5 U	5 U	5 U	5 U	5 U
5-100	5-100-0803	8/16/2003		5 U	5 U	5 U	5 U	5 U



**TABLE 4.3**  
**SUMMARY OF VOCs**  
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5-100	5-100-1103	11/19/2003	5 U	5 U	5 U	5 U	5 U
5-100	5-100-0204	2/10/2004	5 U	5 U	5 U	5 U	5 U
5-100	5-100-0504	5/11/2004	5 U	5 U	5 U	5 U	5 U
5-100	5-100-0804	8/16/2004	5 U	5 U	5 U	5 U	5 U
5-100	5-100-1104	11/12/2004	5 U	5 U	5 U	5 U	5 U
5-100	5-100-0205	2/10/2005	5 U	5 U	5 U	5 U	5 U
5-100	5-100-0505	5/17/2005	5 U	5 U	5 U	5 U	5 U
5-100	GW-040606-TS-5-100	4/6/2006	10346	10 U	65	5100	4700
5-100	GW-071006-TR-5-100	7/10/2006	0.822	0.0578 U	0.311 J	0.511 J	0.0604 U
5-100	GW-021208-TG-5-100	12/2/2008	486.8 Y	35	27	240	93
5-100	GW-072710-CM-5-100	7/27/2010	256.754	105	11.4	23.4	116
5-100	GW-072710-CM-FD-011	7/27/2010	(Duplicate)	2.981 J	0.015 U	0.077 J	2.04 J
5106-1	GW-092705-5106-1-005	9/27/2005	0.185	0.0578 U	0.0641 U	0.185 J	0.0604 U
5106-1	GW-092705-5106-1-006	9/27/2005	0.231	0.0578 U	0.0641 U	0.231 J	0.0604 U
5106-1	GW-092705-5106-1-010	9/27/2005	3.056	0.0578 U	0.841 J	1.8	0.063 J
5106-1	GW-092705-5106-1-008	9/27/2005	(Duplicate)	20.023	0.0578 U	0.0641 U	12.7
5106-1	GW-092705-5106-1-009	9/27/2005	26.792	0.159 J	9.94	11.2	0.503 J
5106-1	GW-092705-5106-1-004	9/27/2005	35.711	0.301 J	23	11.3	0.628 J
5106-1	GW-092705-5106-1-003	9/27/2005	867.3	5.09 J	221	608	16.9
5106-1	GW-092705-5106-1-001	9/27/2005	102279	505 J	78800	18200	3580
5106-1	GW-092705-5106-1-002	9/27/2005	140813	2780	61800	73900	387 J
5106-1	GW-092705-5106-1-007	9/27/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-1	GW-092805-5106-1-015	9/28/2005	0.917	0.063 J	0.213	0.533	0.108
5106-1	GW-092805-5106-1-018	9/28/2005	11.511	1.81	7.7	1.41	0.591
5106-1	GW-092805-5106-1-013	9/28/2005	48.7	3.18	7.63	36.4	1.49
5106-1	GW-092805-5106-1-014	9/28/2005	6826.5	3 U	4 U	6780	19.6 J
5106-1	GW-092805-5106-1-012	9/28/2005	14.13 J	3.4	8.84	1.89 J	0.25 UJ
5106-1	GW-092805-5106-1-011	9/28/2005	21.43 J	5.18	12.1	2.39 J	0.25 UJ
5106-1	GW-092805-5106-1-017	9/28/2005	49.4185 J	5.18	30.7	9.37 J	4.08 J
5106-1	GW-092805-5106-1-016	9/28/2005	56.02 J	11.5	42.3	2.22 J	0.025 UJ
5106-1	GW-092905-5106-1-020	9/29/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
5106-1	GW-092905-5106-1-021	9/29/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
5106-1	GW-092905-5106-1-023	9/29/2005	109.763 J	0.116 J	1.1 J	15.3 J	92.8 J
5106-1	GW-092905-5106-1-022	9/29/2005	120.816 J	0.056 J	1.24 J	2.72 J	99.5 J
5106-1	GW-092805-5106-1-019	9/29/2005	46.15 J	3.57	26.8	12.2 J	3.58 J
5106-1	GW-093005-5106-1-024	9/30/2005	0.535 J	0.015 UJ	0.247 J	0.288 J	0.025 UJ
5106-10	GW-110205-5106-10-002	11/2/2005	2.2 J	-	-	1.0 U	1.0 U
5106-10	GW-110205-5106-10-001	11/2/2005	8.0 U	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-007	11/3/2005	12.8	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-008	11/3/2005	(Duplicate)	10.8 J	-	-	1.0 U
5106-10	GW-110305-5106-10-012	11/3/2005	14.2 J	-	-	1.2	1.0 U
5106-10	GW-110305-5106-10-013	11/3/2005	2.4 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-004	11/3/2005	2.7 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-003	11/3/2005	2.8 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-006	11/3/2005	3.9 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-005	11/3/2005	4.4 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-010	11/3/2005	5.2 J	-	-	3.1	1.0 U
5106-10	GW-110305-5106-10-014	11/3/2005	5.5 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-009	11/3/2005	6.3 J	-	-	1.0 U	1.0 U
5106-10	GW-110305-5106-10-011	11/3/2005	6.8 J	-	-	4.6	1.0 U
5106-10	GW-110405-5106-10-017	11/4/2005	3	-	-	1.1	1.9
5106-10	GW-110405-5106-10-018	11/4/2005	75.8	-	-	4.8	71
5106-10	GW-110405-5106-10-019	11/4/2005	106	-	-	31	75
5106-10	GW-110405-5106-10-016	11/4/2005	4.3 J	-	-	1.0 U	1.8
5106-10	GW-110405-5106-10-020	11/4/2005	4322.3 J	-	-	113	4200
5106-10	GW-110405-5106-10-015	11/4/2005	8.0 U	-	-	1.0 U	1.0 U
5106-10	GW-110705-5106-10-026	11/7/2005	0.1261	0.0578 U	0.0803 J	0.0458 J	0.0604 U
5106-10	GW-110705-5106-10-025	11/7/2005	0.141	0.144 U	0.141 J	0.154 U	0.162 U
5106-10	GW-110705-5106-10-023	11/7/2005	6.3	-	-	1.0 U	3.4
5106-10	GW-110705-5106-10-027	11/7/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-10	GW-110705-5106-10-024	11/7/2005	(Duplicate)	10.8 J	-	-	3.1
5106-10	GW-110705-5106-10-022	11/7/2005	7.1 J	-	-	1.4	3.5
5106-10	GW-110705-5106-10-021	11/7/2005	8.4 J	-	-	2.7	3.3
5106-11	GW-101305-5106-11-008	10/13/2005	0.87	0.27 J	0.6	0.50 U	0.50 U
5106-11	GW-101305-5106-11-007	10/13/2005	2.78	0.57	2.1	0.11 J	0.50 U
5106-11	GW-101305-5106-11-006	10/13/2005	5.45	0.81	4.5	0.14 J	0.50 U
5106-11	GW-101305-5106-11-009	10/13/2005	9.9	2.4	5.7	0.88	0.50 U
5106-11	GW-101305-5106-11-004	10/13/2005	11.87	0.58	3.8	2.6	0.35 J
5106-11	GW-101305-5106-11-010	10/13/2005	24.19	6.3	14	1.6	0.50 U
5106-11	GW-101305-5106-11-002	10/13/2005	3306.9	5.0 U	2.2 J	2.1 J	3300
5106-11	GW-101405-5106-11-015	10/14/2005	72.44	0.50 U	3.9	51	7.1

TABLE 4.3

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5106-11	GW-101405-5106-11-020	10/14/2005	76.16	0.25 J	3.5	48	8.2
5106-11	GW-101405-5106-11-017	10/14/2005	354.19	1.1	17	220	28
5106-11	GW-101405-5106-11-019	10/14/2005	1123.43	2.8	21	720	38
5106-11	GW-101405-5106-11-018	10/14/2005	1381.3	1.3	45	830	170
5106-11	GW-101405-5106-11-012	10/14/2005	2911.1	5.0 U	5.0 U	8.2	2900 J
5106-11	GW-101405-5106-11-011	10/14/2005	2912.5	5.0 U	5.0 U	9.2	2900
5106-11	GW-101405-5106-11-016	10/14/2005	5028.2	1.4 J	110	3400	150
5106-11	GW-101405-5106-11-014	10/14/2005	38390	50 U	160	26000	6600
5106-11	GW-101405-5106-11-013	10/14/2005	116660	100 U	2300	65000	9000
5106-12	GW-101005-5106-12-001	10/10/2005	5.03	0.50 U	0.15 J	1.9	0.18 J
5106-12	GW-101105-5106-12-011	10/11/2005	423	85 J	260 J	57 J	1.1 J
5106-12	GW-101105-5106-12-012	10/11/2005	1043.2	220 J	710 J	81 J	1.4 J
5106-12	GW-101105-5106-12-010	10/11/2005	1497.3	350	960	140	3.2
5106-12	GW-101105-5106-12-009	10/11/2005	3287.7	1100	1900	220	5.7
5106-12	GW-101105-5106-12-008	10/11/2005	6653	1900	4300	370	3.9 J
5106-12	GW-101105-5106-12-007	10/11/2005	79640	11000	55000	11000	330
5106-12	GW-101105-5106-12-006	10/11/2005	89620	3800	59000	20000	1400
5106-12	GW-101105-5106-12-004	10/11/2005 (Duplicate)	126890	2500	52000	45000	7100
5106-12	GW-101105-5106-12-003	10/11/2005	147230	3300	73000	38000	7600
5106-12	GW-101105-5106-12-005	10/11/2005	153770	2200	71000	57000	4200
5106-12	GW-101105-5106-12-002	10/11/2005	279870	9300	170000	65000	7300
5106-12	GW-101205-5106-12-019	10/12/2005	0.1	0.50 U	0.50 U	0.10 J	0.50 U
5106-12	GW-101205-5106-12-018	10/12/2005	0.13	0.50 U	0.50 U	0.13 J	0.50 U
5106-12	GW-101205-5106-12-020	10/12/2005	0.27	0.50 U	0.50 U	0.27 J	0.50 U
5106-12	GW-101205-5106-12-021	10/12/2005	3.24	0.50 U	0.23 J	2.4	0.28 J
5106-12	GW-101205-5106-12-014	10/12/2005	4.76	0.31 J	1.1	2.6	0.61
5106-12	GW-101205-5106-12-016	10/12/2005	10.51	2.4	0.33 J	0.99	0.19 J
5106-12	GW-101205-5106-12-017	10/12/2005	23.96	2	0.74	2.6	0.49 J
5106-12	GW-101205-5106-12-015	10/12/2005	44.11	13	1.8	1.8	0.42 J
5106-12	GW-101205-5106-12-024	10/12/2005	520.65	0.95 J	1.7 J	17	490
5106-12	GW-101205-5106-12-022	10/12/2005	3608.1	5.0 U	5.0 U	6.7	3600
5106-12	GW-101205-5106-12-023	10/12/2005	9642.5	13 U	13 U	39	9600
5106-13	GW-112805-5106-13-007	11/28/2005	1.005	0.208 J	0.566 J	0.231 J	0.162 U
5106-13	GW-112805-5106-13-006	11/28/2005	1.109	0.213 J	0.607 J	0.289 J	0.162 U
5106-13	GW-112805-5106-13-005	11/28/2005	4.157	0.144 U	0.757 J	1.76	1.64
5106-13	GW-112805-5106-13-008	11/28/2005	75.912	10.6 J	54	9.33	1.2
5106-13	GW-112805-5106-13-009	11/28/2005	218498.5	72.5 J	32500 J	156000	15700
5106-13	GW-112805-5106-13-004	11/28/2005	0.143 J	0.015 UJ	0.02 UJ	0.143 J	0.025 UJ
5106-13	GW-112805-5106-13-002	11/28/2005	0.249 J	0.015 UJ	0.02 UJ	0.249 J	0.025 UJ
5106-13	GW-112805-5106-13-003	11/28/2005 (Duplicate)	1.269 J	0.015 UJ	0.313 J	0.774 J	0.182 J
5106-13	GW-112805-5106-13-001	11/28/2005	11.898 J	0.158 J	2.45 J	7.41 J	1.88 J
5106-13	GW-112905-5106-13-015	11/29/2005	95.9	4.3 J	19	0.16 U	62
5106-13	GW-112905-5106-13-016	11/29/2005	2772.8	0.15 U	21	420	2300
5106-13	GW-112905-5106-13-019	11/29/2005	80443.8	3.7 J	280	68000	9800
5106-13	GW-112905-5106-13-017	11/29/2005	85186	15	33000	48000	2100
5106-13	GW-112905-5106-13-018	11/29/2005	89956.4	3.5 J	320	76000	11000
5106-13	GW-112905-5106-13-013	11/29/2005	94506	463 J	34000	47700	11000
5106-13	GW-112905-5106-13-014	11/29/2005	127747	3320 J	108000	14900	607
5106-13	GW-112905-5106-13-011	11/29/2005	173842.4	14.4 U	577	126000	41500
5106-13	GW-112905-5106-13-010	11/29/2005	183453	115 J	41900	92600	39600
5106-13	GW-112905-5106-13-012	11/29/2005	193870	10800	90100	68900	21900
5106-13	GW-113005-5106-13-020	11/30/2005	6717.6	180 J	2100	2800	1500
5106-13	GW-113005-5106-13-023	11/30/2005	100791	4800	61000	34000	120
5106-13	GW-113005-5106-13-022	11/30/2005	131580	2700	120000	7100	1200
5106-13	GW-113005-5106-13-021	11/30/2005	146888	1600	96000	32000	16000
5106-14	GW-120105-5106-14-002	12/1/2005 (Duplicate)	0.0765	0.015 U	0.0765 J	0.015 U	0.025 U
5106-14	GW-120105-5106-14-001	12/1/2005	0.261	0.015 U	0.147 J	0.114 J	0.025 U
5106-14	GW-120105-5106-14-004	12/1/2005	0.417	0.015 U	0.277 J	0.14 J	0.025 U
5106-14	GW-120105-5106-14-005	12/1/2005	0.42	0.015 U	0.272 J	0.148 J	0.025 U
5106-14	GW-120105-5106-14-003	12/1/2005	0.497	0.015 U	0.254 J	0.243 J	0.025 U
5106-14	GW-120105-5106-14-008	12/1/2005	0.612	0.0578 U	0.0641 U	0.612 J	0.0604 U
5106-14	GW-120105-5106-14-007	12/1/2005	1.129	0.015 U	0.473 J	0.656	0.025 U
5106-14	GW-120105-5106-14-006	12/1/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
5106-14	GW-120105-5106-14-009	12/1/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-14	GW-120205-5106-14-019	12/2/2005	13.7695	0.0955 J	0.114 J	10.5	2.57
5106-14	GW-120205-5106-14-017	12/2/2005	126.0785	0.0985 J	0.141 J	23.3	101
5106-14	GW-120205-5106-14-018	12/2/2005	228.922	0.134 J	0.588	126	94.1
5106-14	GW-120205-5106-14-016	12/2/2005	628.479	1.14	0.265 J	95.7	525
5106-14	GW-120205-5106-14-015	12/2/2005	2360.36	0.3 U	0.4 U	472	1870
5106-14	GW-120305-5106-14-020	12/3/2005	0.777	0.015 U	0.02 U	0.42 J	0.357
5106-14	GW-120305-5106-14-021	12/3/2005 (Duplicate)	24.2965	0.015 U	0.02 U	1.14	22.2

TABLE 4.3

SUMMARY OF VOCs  
OCCIDENTAL CHEMICAL CORPORATION  
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5106-14	GW-120305-5106-14-022	12/3/2005	77405	3 U	1440	54000	19800
5106-14	GW-120505-5106-14-024	12/5/2005	76314.7	0.15 U	70 J	60000	15000
5106-14	GW-120505-5106-14-023	12/5/2005	142253	13	22000	100000	4000
5106-14	GW-120505-5106-14-025	12/5/2005	172075.5	13	1900 J	120000	46000
5106-15	GW-111505-5106-15-004	11/15/2005	0.25	0.0578 U	0.0641 U	0.25 J	0.0604 U
5106-15	GW-111505-5106-15-003	11/15/2005	0.305	0.0578 U	0.0641 U	0.305 J	0.0604 U
5106-15	GW-111505-5106-15-002	11/15/2005 (Duplicate)	0.4	0.0578 U	0.136 J	0.264 J	0.0604 U
5106-15	GW-111505-5106-16-014	11/15/2005	0.445	0.0578 U	0.0641 U	0.336 J	0.109 J
5106-15	GW-111505-5106-15-006	11/15/2005	1.61	0.0578 U	0.0641 U	0.0433 U	1.61
5106-15	GW-111505-5106-15-007	11/15/2005	1.7548	0.0578 U	0.0641 U	0.0948 J	1.66
5106-15	GW-111505-5106-15-001	11/15/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-15	GW-111505-5106-15-005	11/15/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-15	GW-111605-5106-15-008	11/16/2005	5.669	0.0578 U	0.158 J	4.05	1.33
5106-15	GW-111605-5106-15-009	11/16/2005	6.9	1.2 J	2.2 J	0.16 U	0.23 U
5106-16	GW-111405-5106-16-005	11/14/2005 (Duplicate)	0.765	0.144 U	0.126 U	0.154 U	0.765 J
5106-16	GW-111405-5106-16-001	11/14/2005	14.8816	0.0736 J	1.08	10.9	1.99
5106-16	GW-111405-5106-16-007	11/14/2005	23.943	0.0578 U	0.0641 U	6.96	16.9
5106-16	GW-111405-5106-16-006	11/14/2005	305.323	0.144 U	0.126 U	0.323 J	305
5106-16	GW-111405-5106-16-002	11/14/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-16	GW-111405-5106-16-008	11/14/2005 (Duplicate)	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
5106-16	GW-111405-5106-16-003	11/14/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
5106-16	GW-111405-5106-16-004	11/14/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
5106-16	GW-111505-5106-16-014	11/15/2005	6.859	0.0578 U	0.0641 U	4.75	1.96
5106-16	GW-111505-5106-16-013	11/15/2005	40.324	0.0578 U	0.0641 U	28.2	10.8
5106-16	GW-111505-5106-16-012	11/15/2005	45.379	0.0578 U	0.0641 U	35.3	8.71
5106-16	GW-111505-5106-16-011	11/15/2005 (Duplicate)	1550.56	2.89 U	3.21 U	1050	459
5106-16	GW-111505-5106-16-010	11/15/2005	18175.2	11.6 U	12.8 U	12500	5170
5106-16	GW-111505-5106-16-009	11/15/2005	33184	28.9 U	32.1 U	25300	7030
5106-19	GW-011406-5106-19-003	1/14/2006	1.904	0.184 J	1.72 J	0.154 U	0.162 U
5106-19	GW-011406-5106-19-004	1/14/2006	133.992	0.144 U	0.126 U	0.154 U	55.4
5106-19	GW-011606-5106-19-005	1/16/2006	3.273	0.168 J	2.06	0.154 U	0.162 U
5106-19	GW-011606-5106-19-006	1/16/2006	43.78	0.144 U	0.88 J	25.8	0.162 U
5106-19	GW-011606-5106-19-007	1/16/2006	31446	144 U	126 U	154 U	31000
5106-19	GW-011606-5106-19-009	1/16/2006	74259	144 U	126 U	36000	37700
5106-19	GW-011606-5106-19-010	1/16/2006	120712	144 U	126 U	69000	50800
5106-19	GW-011606-5106-19-008	1/16/2006	128327	144 U	126 U	54000	73400
5106-19	GW-011706-5106-19-011	1/17/2006	14100	144 U	126 U	154 U	14100
5106-19	GW-011706-5106-19-012	1/17/2006 (Duplicate)	59100	144 U	126 U	20900	38200
5106-19	GW-011706-5106-19-013	1/17/2006	68120	144 U	126 U	5620	62500
5106-2	GW-013006-5106-2-005	1/30/2006	55.85	42	2.4	0.38 J	0.50 U
5106-2	GW-013006-5106-2-006	1/30/2006	67	32	24	-	1 U
5106-2	GW-013006-5106-2-004	1/30/2006	70.8	53	7.4	5.5	5 U
5106-2	GW-013006-5106-2-002	1/30/2006	181	95	31	-	1 U
5106-2	GW-013006-5106-2-001	1/30/2006	204	140	27	-	1 U
5106-2	GW-013106-5106-2-009	1/31/2006 (Duplicate)	27	18	6	-	1 U
5106-2	GW-013106-5106-2-010	1/31/2006	67	32	24	-	1 U
5106-2	GW-013106-5106-2-013	1/31/2006	87.2	51	7.8	16	4.5 J
5106-2	GW-013106-5106-2-011	1/31/2006	167	34	48	-	7
5106-2	GW-013106-5106-2-007	1/31/2006	-	34	48	-	7
5106-20	GW-010406-5106-20-001	1/4/2006	1.523	0.015 U	0.02 U	0.323 J	1.2
5106-20	GW-010406-5106-20-002	1/4/2006	1.674	0.015 U	0.02 U	0.454 J	1.22
5106-20	GW-010406-5106-20-005	1/4/2006	3.0055	0.0635 J	0.077 J	0.935	1.93
5106-20	GW-010406-5106-20-003	1/4/2006	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
5106-20	GW-010406-5106-20-004	1/4/2006	0.075 UJ	0.015 U	0.02 U	0.015 U	0.025 U
5106-20	GW-010506-5106-20-017	1/5/2006	372.609	0.117 J	0.27 J	98	271
5106-20	GW-010506-5106-20-016	1/5/2006	1485.93	0.15 U	0.65 J	249	1230
5106-20	GW-010506-5106-20-014	1/5/2006	18363.4	1.5 U	2 U	3320	15000
5106-20	GW-010506-5106-20-015	1/5/2006	25556.15	1.5 U	2 U	1560	23900
5106-20	GW-010506-5106-20-006	1/5/2006	52592	3 U	4 U	14800	37500
5106-20	GW-010506-5106-20-013	1/5/2006	65714.1	3 U	18.1 J	40100	24900
5106-20	GW-010506-5106-20-008	1/5/2006 (Duplicate)	84070.1	3 U	15.1 J	38600	44500
5106-20	GW-010506-5106-20-007	1/5/2006	84769.5	3 U	13.5 J	39800	44000
5106-20	GW-010506-5106-20-012	1/5/2006	149634	6 U	8 U	20400	128000
5106-20	GW-010506-5106-20-010	1/5/2006	157437	6 U	8 U	27100	129000
5106-20	GW-010506-5106-20-009	1/5/2006	168487	15 U	20 U	42900	124000
5106-20	GW-010506-5106-20-011	1/5/2006	222599	6 U	8 U	73000	148000
5106-20	GW-010606-5106-20-019	1/6/2006	9.8915	0.0605 J	0.117 J	1.81	7.85
5106-20	GW-010606-5106-20-021	1/6/2006	24.753	0.0575 J	0.0635 J	6.21	18
5106-20	GW-010606-5106-20-018	1/6/2006	37.043	0.015 U	0.074 J	17.6	19
5106-20	GW-010606-5106-20-020	1/6/2006	1320.356	0.236 J	0.354 J	258	1050
5106-21	GW-010606-5106-21-001	1/6/2006	149.8925	0.248 J	0.704	4.42	144

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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5106-21	GW-010606-5106-21-003	1/6/2006	57911.3	3 U	4 U	45.6 J	57800
5106-21	GW-010606-5106-21-002	1/6/2006	92117.4	6 U	8 U	782	90900
5106-21	GW-010906-5106-21-004	1/9/2006	80511.8	6 U	8 U	6200	74000
5106-21	GW-010906-5106-21-005	1/9/2006	156345	6 U	8 U	76000	79400
5106-21	GW-010906-5106-21-006	1/9/2006	193469	15 U	20 U	26500	166000
5106-21	GW-010906-5106-21-007	1/9/2006	218973	15 U	20 U	36600	181000
5106-21	GW-011006-5106-21-018	1/10/2006	0.153	0.015 U	0.02 U	0.015 U	0.153
5106-21	GW-011006-5106-21-017	1/10/2006	0.235	0.015 U	0.02 U	0.059 J	0.176
5106-21	GW-011006-5106-21-016	1/10/2006	229.438	0.015 U	0.02 U	59.1	169
5106-21	GW-011006-5106-21-015	1/10/2006	367.537	0.0645 J	0.0715 J	73.5	292
5106-21	GW-011006-5106-21-013	1/10/2006	4973.15	0.3 U	0.4 U	282	4690
5106-21	GW-011006-5106-21-014	1/10/2006	7035.24	0.3 U	0.4 U	1510	5520
5106-21	GW-011006-5106-21-012	1/10/2006	8630	0.6 U	0.8 U	30	8600
5106-21	GW-011006-5106-21-011	1/10/2006	35545.9	3 U	4 U	15.6 J	35500
5106-21	GW-011006-5106-21-009	1/10/2006	75120.1	3 U	4 U	9240	65500
5106-21	GW-011006-5106-21-010	1/10/2006	75393.8	6 U	8 U	5530	69700
5106-21	GW-011006-5106-21-008	1/10/2006	75781.5	15 U	20 U	8990	66400
5106-21	GW-011106-5106-21-019	1/11/2006	2.5	0.15 U	0.16 U	0.16 U	2.5 J
5106-22	GW-012506-5106-22-003	1/25/2006	58.6	13	19	12	5.6
5106-22	GW-012506-5106-22-006	1/25/2006	356	110	150	-	5
5106-22	GW-012506-5106-22-004	1/25/2006	547	120	230	-	9
5106-22	GW-012506-5106-22-005	1/25/2006	547	120	230	-	9
5106-22	GW-012506-5106-22-001	1/25/2006	-	38	25	-	1 U
5106-22	GW-012606-5106-22-012	1/26/2006	13.8	9.6	4.2 J	5 U	5 U
5106-22	GW-012606-5106-22-010	1/26/2006	24	15	4	-	1 U
5106-22	GW-012606-5106-22-007	1/26/2006	27	18	6	-	1 U
5106-22	GW-012606-5106-22-008	1/26/2006	28	19	6	-	1 U
5106-22	GW-012606-5106-22-009	1/26/2006	33	20	8	-	1 U
5106-22	GW-012606-5106-22-013	1/26/2006	55	30	9	-	1 U
5106-23	GW-021006-5106-23-002	2/10/2006	6.42	0.50 U	0.50 U	0.070 J	3.9
5106-23	GW-021006-5106-23-008	2/10/2006	38.4	-	-	-	-
5106-23	GW-021006-5106-23-001	2/10/2006	264.1	5.0 U	5.0 U	5.0 U	5.0 U
5106-23	GW-021006-5106-23-010	2/10/2006	289	35	30	150	49
5106-23	GW-021006-5106-23-004	2/10/2006	1338	-	-	-	-
5106-23	GW-021006-5106-23-007	2/10/2006	3278	-	-	-	-
5106-23	GW-021006-5106-23-006	2/10/2006	4464	-	-	-	-
5106-23	GW-021006-5106-23-005	2/10/2006	9500	20 U	20 U	-	20 U
5106-23	GW-021006-5106-23-003	2/10/2006	14100	-	-	-	-
5106-23	GW-021006-5106-23-009	2/10/2006	442.5 Y	38	34	190	67
5106-23	GW-021306-5106-23-011	2/13/2006	0.23	0.50 U	0.50 U	0.50 U	0.50 U
5106-23	GW-021306-5106-23-013	2/13/2006	15.21	0.50 U	0.50 U	0.50 U	0.50 U
5106-23	GW-021306-5106-23-019	2/13/2006	53.5	0.75 U	0.80 U	0.80 U	48
5106-23	GW-021306-5106-23-015	2/13/2006	120	0.75 U	0.80 U	0.80 U	1.2 U
5106-23	GW-021306-5106-23-014	2/13/2006	130	0.75 U	0.80 U	0.80 U	1.2 U
5106-23	GW-021306-5106-23-018	2/13/2006	173.89	0.50 U	0.50 U	0.10 J	0.29 J
5106-23	GW-021306-5106-23-012	2/13/2006	9.5 U	0.75 U	0.80 U	0.80 U	1.2 U
5106-23	GW-021406-5106-23-020	2/14/2006	98.75	0.50 U	0.50 U	0.50 U	0.50 U
5106-24	GW-020806-5106-24-006	2/8/2006	7	0.50 U	0.50 U	2.6	3.6
5106-24	GW-020806-5106-24-003	2/8/2006	53.4	6.4	16	31	5 U
5106-24	GW-020806-5106-24-004	2/8/2006	73.38	1.8	7.1	63	0.11 J
5106-24	GW-020806-5106-24-009	2/8/2006	83	15	50	18	5 U
5106-24	GW-020806-5106-24-008	2/8/2006	109	100	5	-	1 U
5106-24	GW-020806-5106-24-002	2/8/2006	167	57	38	-	1 U
5106-24	GW-020806-5106-24-005	2/8/2006	937.9	13 U	4.8 J	810	66
5106-24	GW-020806-5106-24-001	2/8/2006	-	57	38	-	1 U
5106-24	GW-020806-5106-24-007	2/8/2006	-	100	5	-	1 U
5106-24	GW-020906-5106-24-019	2/9/2006	0.74	0.50 U	0.50 U	0.50 U	0.50 U
5106-24	GW-020906-5106-24-020	2/9/2006	1.3	0.50 U	0.50 U	0.50 U	0.50 U
5106-24	GW-020906-5106-24-010	2/9/2006	34.82	28	6.6	0.22 J	0.50 U
5106-24	GW-020906-5106-24-016	2/9/2006	84.43	15	6.2	55	4.8
5106-24	GW-020906-5106-24-013	2/9/2006	85.5	34	15	16	11
5106-24	GW-020906-5106-24-011	2/9/2006	173	130	31	12	1.2 U
5106-24	GW-020906-5106-24-012	2/9/2006	209.8	150	27	26	1.6 J
5106-24	GW-020906-5106-24-021	2/9/2006	226.9	2.5 U	2.5 U	2.5 U	2.5 U
5106-24	GW-020906-5106-24-017	2/9/2006	9.5 U	0.75 U	0.80 U	0.80 U	1.2 U
5106-25	GW-041406-5106-25-002	4/14/2006	1984	25 U	44	210	1500
5106-25	GW-041706-5106-25-003	4/17/2006	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
5106-25	GW-041706-5106-25-004	4/17/2006	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
5106-25	GW-042706-5106-25-009	4/27/2006	6741	580	920	1700	3200
5106-25	GW-042706-5106-25-010	4/27/2006	10125	2900	4100	2900	81 J
5106-26	GW-021406-5106-26-004	2/14/2006	0.76	0.50 U	0.50 U	0.50 U	0.62

**TABLE 4.3**  
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5106-26	GW-021406-5106-26-007	2/14/2006		4.02	0.50 U	0.50 U	0.50 U	0.50 U
5106-26	GW-021406-5106-26-009	2/14/2006	(Duplicate)	72	1.5 U	1.6 U	1.6 U	2.3 U
5106-26	GW-021406-5106-26-001	2/14/2006		175.15	2.5 U	2.5 U	2.5 U	0.50 J
5106-26	GW-021406-5106-26-003	2/14/2006		186.5	2.5 U	2.5 U	2.5 U	8.1
5106-26	GW-021406-5106-26-008	2/14/2006		212.3	26	22	22	6.3 J
5106-26	GW-021406-5106-26-002	2/14/2006		474.6	5.0 U	5.0 U	5.0 U	5.0 U
5106-26	GW-021406-5106-26-006	2/14/2006		1965	25 U	25 U	25 U	25 U
5106-26	GW-021406-5106-26-005	2/14/2006		2493	50 U	50 U	50 U	50 U
5106-26	GW-021506-5106-26-014	2/15/2006		127.7	0.15 U	0.16 U	0.16 U	0.23 U
5106-26	GW-021506-5106-26-017	2/15/2006		351	1.5 U	1.6 U	1.6 U	2.3 U
5106-26	GW-021506-5106-26-016	2/15/2006		530	1.5 U	1.6 U	1.6 U	2.3 U
5106-26	GW-021506-5106-26-015	2/15/2006		594.5	1.5 U	1.6 U	1.6 U	2.3 U
5106-26	GW-021506-5106-26-012	2/15/2006		681.5	0.15 U	0.16 U	0.16 U	11
5106-26	GW-021506-5106-26-013	2/15/2006		2160	0.15 U	0.16 U	0.16 U	0.23 U
5106-26	GW-021506-5106-26-010	2/15/2006		9.2 U	1.5 U	1.6 U	1.6 U	2.3 U
5106-26	GW-021506-5106-26-011	2/15/2006		9.2 U	1.5 U	1.6 U	1.6 U	2.3 U
5106-26	GW-021606-5106-26-020	2/16/2006		36	0.15 U	0.16 U	0.16 U	0.23 U
5106-26	GW-021606-5106-26-019	2/16/2006		86.4	16	15	8.4 J	2.3 U
5106-26	GW-021606-5106-26-018	2/16/2006		450.4 Y	18	17	9.1	1.0 U
5106-27	GW-041006-5106-27-003	4/10/2006		26327	2 U	480	5600	20000
5106-27	GW-041106-5106-27-007	4/11/2006		997	12.5 U	12.5 U	16	970
5106-28	GW-042006-5106-28-004	4/20/2006		54340	330 U	340 J	42000	12000
5106-28	GW-042006-5106-28-003	4/20/2006		56630	110	1800	43000	11000
5106-29	GW-042406-5106-29-006	4/24/2006		21100	3900	8700	8500	500 U
5106-29	GW-042406-5106-29-007	4/24/2006		22000	4200	9100	8700	500 U
5106-29	GW-042406-5106-29-005	4/24/2006		48030	6500	23000	17000	630
5106-3	GW-091905-5106-3-001	9/19/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
5106-3	GW-091905-5106-3-002	9/19/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
5106-3	GW-091905-5106-3-003	9/19/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
5106-3	GW-091905-5106-3-004	9/19/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
5106-3	GW-091905-5106-3-005	9/19/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
5106-3	GW-092005-5106-3-006	9/20/2005		7.4	0.15 U	0.16 U	0.16 U	0.23 U
5106-3	GW-092005-5106-3-009	9/20/2005		55.5	-	-	-	-
5106-3	GW-092005-5106-3-012	9/20/2005		142.1	1.0 U	1.0 U	1.0 U	1.0 U
5106-3	GW-092005-5106-3-011	9/20/2005		297.4	-	-	-	-
5106-3	GW-092005-5106-3-010	9/20/2005		568.7	-	-	-	-
5106-3	GW-092005-5106-3-008	9/20/2005		659.9	-	-	-	-
5106-3	GW-092005-5106-3-007	9/20/2005		865.3	3 U	3 U	3 U	10
5106-3	GW-092105-5106-3-016	9/21/2005		0.88	0.50 U	0.50 U	0.50 U	0.50 U
5106-3	GW-092105-5106-3-015	9/21/2005		27.9	0.20 U	0.20 U	0.20 U	0.20 U
5106-3	GW-092105-5106-3-020	9/21/2005		57.8	-	-	-	-
5106-3	GW-092105-5106-3-014	9/21/2005		271.5	5.0 U	5.0 U	5.0 U	5.0 U
5106-3	GW-092105-5106-3-013	9/21/2005		279.7	2.0 U	2.0 U	2.0 U	2.0 U
5106-3	GW-092105-5106-3-017	9/21/2005	(Duplicate)	1.0 U	-	-	-	-
5106-3	GW-092105-5106-3-018	9/21/2005		1.0 U	-	-	-	-
5106-3	GW-092105-5106-3-019	9/21/2005		1.0 U	-	-	-	-
5106-3	GW-092205-5106-3-023	9/22/2005		2.6	-	-	-	-
5106-3	GW-092205-5106-3-021	9/22/2005		1.0 U	-	-	-	-
5106-3	GW-092205-5106-3-022	9/22/2005		1.0 U	-	-	-	-
5106-3	GW-092205-5106-3-024	9/22/2005		1.0 U	-	-	-	-
5106-30	GW-042506-5106-30-005	4/25/2006		13630	880	2600	8400	1500
5106-30	GW-042506-5106-30-006	4/25/2006	(Duplicate)	14590	990	2400	9000	1800
5106-30	GW-042506-5106-30-004	4/25/2006		14610	1000	2700	9000	1600
5106-30	GW-042506-5106-30-001	4/25/2006		15790	1600	4000	8400	1500
5106-30	GW-042506-5106-30-002	4/25/2006		21010	3000 J	6000 J	10000 J	1600 J
5106-30	GW-042506-5106-30-003	4/25/2006		74000	14000	32000	7200 D	19000
5106-31	GW-042806-5106-31-002	4/28/2006		86.815	0.32 J	1.6	4.2	74
5106-31	GW-042806-5106-31-001	4/28/2006		90.7	2 U	2 U	2 U	89
5106-32	GW-050306-5106-32-B5-001	5/3/2006		21	5 U	21	5 U	5 U
5106-32	GW-050306-5106-32-B5-003	5/3/2006		26	5 U	26	5 U	5 U
5106-32	GW-050306-5106-32-B5-002	5/3/2006		36	7	29	5 U	5 U
5106-32	GW-050406-5106-32-B5-004	5/4/2006		8	5 U	5 U	5 U	8
5106-32	GW-050406-5106-32-B5-006	5/4/2006		8	5 U	5 U	5 U	8
5106-32	GW-050406-5106-32-B5-005	5/4/2006		9	5 U	5 U	5 U	9
5106-6	GW-101705-5106-6-001	10/17/2005		162.96	0.36 J	10	95	27
5106-6	GW-101705-5106-6-002	10/17/2005		164.25	0.35 J	9.9	97	27
5106-6	GW-101705-5106-6-004	10/17/2005		81426	100 U	700	56000	9100
5106-6	GW-101805-5106-6-006	10/18/2005		0.12	0.50 U	0.50 U	0.50 U	0.12 J
5106-6	GW-101805-5106-6-007	10/18/2005		6.93	0.50 U	0.50 U	4.8	0.15 J
5106-6	GW-101805-5106-6-015	10/18/2005		128.53	5.4	0.13 J	89	34
5106-6	GW-101805-5106-6-014	10/18/2005		867.7	99	500	160	100

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

5106-6	GW-101805-5106-6-008	10/18/2005	16601	25 U	25 U	1300	15000
5106-6	GW-101805-5106-6-010	10/18/2005	95810	100 U	13000	64000	8500
5106-6	GW-101805-5106-6-009	10/18/2005	96330	100 U	1100	72000	11000
5106-6	GW-101805-5106-6-012	10/18/2005	198368	12000	76000	81000	26000
5106-6	GW-101805-5106-6-011	10/18/2005	221460	250 U	250 U	87000	130000
5106-6	GW-101805-5106-6-013	10/18/2005	280010	36000	210000	25000	6700
5106-6	GW-101905-5106-6-019	10/19/2005	13.982	1.77	5.65	4.37	0.536
5106-6	GW-101905-5106-6-017	10/19/2005	48.68	14.8	10.7	13.4	3.69
5106-6	GW-101905-5106-6-018	10/19/2005	51.59	16.1	16.4	12.1	2.35
5106-6	GW-101905-5106-6-016	10/19/2005	53.827	21	11	11.9	2.12
5106-6	GW-101905-5106-6-021	10/19/2005	0.742 J	0.24 J	0.227 J	0.275 J	0.0604 UJ
5106-6	GW-101905-5106-6-020	10/19/2005	8.4132 J	2.3 J	4.23 J	0.516 J	0.241 J
5106-9	GW-110105-5106-9-013	11/1/2005	1225 J4	1100 J4	47 J	-	100 U
5106-9	GW-110105-5106-9-004	11/1/2005	123 J4	36 J4	71	-	10 U
5106-9	GW-110105-5106-9-003	11/1/2005	128 J4	5 U	5 U	-	10
5106-9	GW-110105-5106-9-005	11/1/2005	137 J4	100	29	-	10 U
5106-9	GW-110105-5106-9-008	11/1/2005	270 J4	61 J4	39	-	10 U
5106-9	GW-110105-5106-9-015	11/1/2005	3.9 J	-	-	1.0 U	1.0 U
5106-9	GW-110105-5106-9-007	11/1/2005	555 J4	380 J4	160	-	10 U
5106-9	GW-110105-5106-9-002	11/1/2005	568 J4	5 U	18	-	270
5106-9	GW-110105-5106-9-011	11/1/2005	5976 J4	5 U	5 U	-	10 U
5106-9	GW-110105-5106-9-006	11/1/2005	60 J4	33	19	-	10 U
5106-9	GW-110105-5106-9-014	11/1/2005	8.0 U	-	-	1.0 U	1.0 U
5106-9	GW-110105-5106-9-016	11/1/2005	8.0 U	-	-	1.0 U	1.0 U
5106-9	GW-110105-5106-9-010	11/1/2005	890 J4	800 J4	40	-	10 U
5106-9	GW-110205-5106-9-020	11/2/2005	1.8 J	-	-	1.0 U	1.0 U
5106-9	GW-110205-5106-9-019	11/2/2005	2.9 J	-	-	1.0 U	1.0 U
5106-9	GW-110205-5106-9-018	11/2/2005	3.0 J	-	-	1.0 U	1.0 U
5106-9	GW-110205-5106-9-021	11/2/2005	3.3 J	-	-	1.0 U	1.0 U
5106-9	GW-110205-5106-9-022	11/2/2005	3.3 J	-	-	1.0 U	1.0 U
5106-9	GW-110205-5106-9-017	11/2/2005	3.8 J	-	-	1.0 U	1.0 U
5106-9	GW-110205-5106-9-023	11/2/2005	8.0 U	-	-	1.0 U	1.0 U
51-15	W-1002-120595-JW-004	12/5/1995	99900	10000	50000	32000	3800
51-15	51-15-0304	3/17/2004	7	5 U	5 U	5 U	7
52-15	GW-120111-AK-52-15	12/1/2011	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
53-100	53-100	11/21/1996	110	5 U	5 U	5 U	110
53-100	53-100	2/19/1997	210	5.0 U	5.0 U	5.0 U	210
53-100	53-100	5/27/1997	450	5.0 U	5.0 U	5.0 U	450 D
53-100	53-100	5/27/1997	750	5.0 U	5.0 U	5.0 U	750 E
53-100	53-100	8/25/1997	2200	5.0 U	5.0 U	5.0 U	2200
53-100	53-100	11/20/1997	2500	5.0 U	5.0 U	5.0 U	2500
53-100	53-100	11/20/1997	3147	5 U	5 U	5 U	3147
53-100	53-100	2/11/1998	3600	250 U	250 U	250 U	3600 J
53-100	53-100	5/21/1998	6000	250 U	250 U	250 U	6000
53-100	53-100	8/19/1998	3700	250 U	250 U	250 U	3700
53-100	53-100	11/10/1998	9548	25 U	25 U	48	9500
53-100	53-100	2/8/1999	5520	25 U	25 U	120	5400
53-100	53-100	5/20/1999	3300	250 U	250 U	250 U	3300
53-100	53-100	8/20/1999	5300	250 U	250 U	250 U	5300
53-100	53-100	2/9/2000	4450	25 U	25 U	250 J	4200
53-100	53-100	2/10/2000	9900	250 U	250 U	400	9500
53-100	53-100-TR-080800	8/8/2000	201	5 U	5 U	11	190
53-100	53-100-TR-022201	2/22/2001	254	5 U	5 U	14	240
53-100	53-100-TR-081601	8/16/2001	168	5 U	5 U	8	160
53-100	53-100	8/16/2001	12516	25 U	25 U	490	12000 J
53-100	53-100-TR-012702	1/27/2002	236	5 U	5 U	16	220
53-100	53-100	1/27/2002	11470	250 U	250 U	470	11000
53-100	53-100-TR-080702	8/7/2002	238	8	34	16	170
53-100	FD6-TR-080702	8/7/2002	501209.7 J	0.15 U	9.7	420000	77000
53-100	53-100	2/1/2003	9790	50 U	50 U	590	9200
53-100	53-100-0203	2/5/2003	6570	50 U	50 U	670	5900
53-100	53-100-0803	8/19/2003	293	25 U	25 U	33	260
53-100	53-100-0204	2/12/2004	764	25 U	25 U	54	710
53-100	GW-041706-TR-53-100	4/17/2006	118610	30.00 U	3000	91000	23000
53-100	GW-073106-DR-53-100	7/31/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
53-100	GW-071213-AW-53-100-17	7/12/2013	42.18	0.0578 U	0.2 J	41.7	0.0604 U
53-25	53-25	11/21/1996	127	5 U	5 U	7	120
53-25	53-25	2/13/1997	149	5 U	5 U	9	140
53-25	53-25	5/20/1997	170	5 U	5 U	5 U	170
53-25	53-25	8/26/1997	150	5 U	5 U	5 U	150
53-25	53-25	11/20/1997	192.5	5 U	5 U	2.5 J	190

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
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53-25	53-25	2/11/1998	160	5 U	5 U	5 U	160
53-25	53-25	5/21/1998	45	5 U	5 U	5 U	45
53-25	53-25	2/8/1999	102.7	5 U	5 U	2.7 J	100
53-25	53-25	5/20/1999	63	5 U	5 U	5 U	63
53-25	53-25	8/20/1999	46	5 U	5 U	5 U	46
53-25	53-25	2/9/2000	54.1	5 U	1.1 J	5 U	53
53-25	53-25	2/10/2000	49	5 U	5 U	5 U	49
53-25	53-25-TR-080800	8/8/2000	7408	130 U	130 U	270	7100
53-25	53-25-TR-022201	2/22/2001	6.22	0.50 U	0.50 U	0.080 J	4.6
53-25	53-25-TR-081601	8/16/2001	2.43	0.50 U	0.13 J	0.14 J	0.74
53-25	53-25	8/16/2001	52	5 U	5 U	5 U	49
53-25	53-25-TR-012702	1/27/2002	13.32	0.50 U	0.50 U	0.15 J	10
53-25	53-25	1/27/2002	57	5 U	5 U	5 U	41
53-25	53-25-TR-080702	8/7/2002	8330	130 U	130 U	290	8000
53-25	53-25	2/1/2003	1020	1.3 U	1.1 U	190	820
53-25	53-25-0803	8/19/2003	10.12	0.50 U	0.50 U	0.15 J	8.3
53-25	53-25-0204	2/12/2004	0.26	0.50 U	0.50 U	0.11 J	0.50 U
53-25	GW-050106-TR-53-25	5/1/2006	8500	100 U	100 U	1300	7200
53-50	53-50	11/15/1996	5 U	5 U	5 U	5 U	10 U
53-50	53-50	2/13/1997	6.8	5 U	5 U	5 U	6.8
53-50	53-50	5/20/1997	5 U	5 U	5 U	5 U	10 U
53-50	53-50	8/25/1997	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
53-50	53-50	11/20/1997	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
53-50	53-50	2/11/1998	9	5.0 U	5.0 U	5.0 U	9
53-50	53-50	5/21/1998	5 U	5 U	5 U	5 U	5 U
53-50	53-50	8/8/1998	5 U	5 U	5 U	5 U	5 U
53-50	53-50	11/10/1998	5 U	5 U	5 U	5 U	5 U
53-50	53-50	2/8/1999	5 U	5 U	5 U	5 U	5 U
53-50	53-50	5/20/1999	5 U	5 U	5 U	5 U	5 U
53-50	53-50	5/20/1999 (Duplicate)	5 U	5 U	5 U	5 U	5 U
53-50	53-50	8/20/1999 (Duplicate)	8	5 U	5 U	5 U	8
53-50	53-50	8/20/1999	5 U	5 U	5 U	5 U	5 U
53-50	53-50	2/9/2000	9	5 U	5 U	5 U	9
53-50	53-50	2/10/2000	5 U	5 U	5 U	5 U	5 U
53-50	53-50-TR-080800	8/8/2000	2.1	5 U	5 U	5 U	2.1 J
53-50	53-50-TR	11/14/2000	10	5 U	5 U	5 U	10
53-50	53-50	11/14/2000	12	5 U	5 U	5 U	12 J
53-50	53-50	2/22/2001 (Duplicate)	1.482 J	0.198 J	0.745 J	0.331 J	0.208 J
53-50	FD5-TR-022201	8/16/2001	5 U	5 U	5 U	5 U	5 U
53-50	53-50	1/27/2002	16	5 U	5 U	5 U	16
53-50	53-50-TR-012702	1/27/2002	5 U	5 U	5 U	5 U	5 U
53-50	53-50-TR-080702	8/7/2002	5 U	5 U	5 U	5 U	5 U
53-50	53-50-RW-110902	11/9/2002	11	5 U	5 U	5 U	11
53-50	53-50	2/1/2003	18	5 U	5 U	5 U	18
53-50	53-50-0203	2/5/2003	18	5 U	5 U	5 U	18
53-50	53-50-0803	8/19/2003	5 U	5 U	5 U	5 U	5 U
53-50	53-50-0204	2/12/2004	5 U	5 U	5 U	5 U	5 U
53-50	GW-073106-DR-53-50	7/31/2006	16	0.15 U	0.16 U	0.16 U	0.23 U
53C-130	GW-071013-AW-53C-130-16	7/10/2013	4.543	0.116 U	0.663 J	3.88	0.121 U
53C-50	WG-072412-AK-53C-50-092	7/24/2012	19417	2800	900 J	9800	2100
53C-75	WG-072412-AK-53C-75-093	7/24/2012	39688	190 J	2000	14000	5500
54-100	54-100	6/1/1998	5 U	5 U	5 U	5 U	5 U
54-100	54-100	8/20/1998	5 U	5 U	5 U	5 U	5 U
54-100	54-100	9/1/1998	5 U	5 U	5 U	5 U	5 U
54-100	54-100	10/1/1998	5 U	5 U	5 U	5 U	5 U
54-100	54-100	1/1/1999	5 U	5 U	5 U	5 U	5 U
54-100	54-100	2/3/1999	8.7	5 U	5 U	5 U	5 U
54-100	54-100	5/1/1999	30	2 U	2 U	2 U	2 U
54-100	54-100	8/1/1999	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
54-100	54-100	2/3/2000	0.49	0.50 U	0.50 U	0.49 J	0.50 U
54-100	54-100	8/2/2000	25	5 U	20	5	10 U
54-100	54-100-TR-021701	2/17/2001	5 U	5 U	5 U	5 U	10 U
54-50	54-50	6/1/1998	5 U	5 U	5 U	5 U	10 U
54-50	54-50	7/1/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
54-50	54-50	8/20/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
54-50	54-50	9/1/1998	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
54-50	54-50	10/1/1998	5 U	5 U	5 U	5 U	5 U
54-50	54-50	11/1/1998	5 U	5 U	5 U	5 U	5 U
54-50	54-50	12/1/1998	5 U	5 U	5 U	5 U	5 U
54-50	54-50	1/1/1999	5 U	5 U	5 U	5 U	5 U
54-50	54-50	2/1/1999	5 U	5 U	5 U	5 U	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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54-50	54-50	2/3/1999	5 U	5 U	5 U	5 U	5 U
54-50	54-50	5/1/1999	5 U	5 U	5 U	5 U	5 U
54-50	54-50	8/1/1999	5 U	5 U	5 U	5 U	5 U
54-50	54-50	2/3/2000	5 U	5 U	5 U	5 U	5 U
54-50	54-50	8/2/2000	5 U	5 U	5 U	5 U	5 U
55-100	55-100	7/1/1998	5 U	5 U	5 U	5 U	5 U
55-100	55-100	8/19/1998	5 U	5 U	5 U	5 U	5 U
55-100	55-100	11/1/1998	5 U	5 U	5 U	5 U	5 U
55-100	55-100	5/1/1999	0.091	0.066 U	0.055 U	0.062 U	0.14 U
55-100	55-100	8/1/1999	0.33	0.50 U	0.50 U	0.50 U	0.25 J
55-100	55-100	2/9/2000	5 U	5 U	5 U	5 U	10 U
55-100	55-100	8/2/2000	5 U	5 U	5 U	5 U	10 U
55-100	55-100-TR-022301	2/23/2001	12	5.0 U	5.0 U	5.0 U	12
55-100	55-100-0205	2/18/2005	15	5 U	5 U	5 U	15
55-100	55-100-0505	5/11/2005	15	5 U	5 U	5 U	15
55-100	FD1-0505	5/11/2005	(Duplicate) 141700	12000	120000	8500	1200
55-100	GW-041306-TS-55-100	4/13/2006	2690	12.5 U	12.5 U	230	2100
55-25	GW-071706-ZF-55-25	7/17/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
55-25	GW-021109-TG-MW55-25-S	2/11/2009	212.2	5.0 U	5.0 U	5.0 U	5.0 U
55-25	GW-070609-TG-MW55-25-S	7/6/2009	0.466 J	0.144 UJ	0.126 UJ	0.466 J	0.162 UJ
55-50	55-50	7/1/1998	24	5.0 U	5.0 U	5.0 U	24
55-50	55-50	8/19/1998	8	5.0 U	5.0 U	5.0 U	8
55-50	55-50	9/1/1998	18	5 U	5 U	5 U	18
55-50	55-50	10/1/1998	26	5 U	5 U	5	21
55-50	55-50	11/1/1998	29	5 U	5 U	5	24
55-50	55-50	12/1/1998	9	5 U	5 U	5 U	5 U
55-50	55-50	1/1/1999	16	5 U	5 U	5 U	16
55-50	55-50	2/1/1999	15	5 U	5 U	7	8
55-50	55-50	5/1/1999	16	5 U	5 U	6	10
55-50	55-50	8/1/1999	19	5 U	5 U	6	13
55-50	55-50	2/1/2000	18	5 U	5 U	6	12
55-50	55-50	2/9/2000	29	5 U	5 U	7	22
55-50	55-50	8/2/2000	53	5 U	5 U	23	30
56-50	56-50	8/6/1998	37	5 U	5 U	22	15
56-50	56-50	11/6/1998	48	5 U	5 U	27	21
56-50	56-50	2/3/1999	38	5 U	5 U	23	15
56-50	56-50	5/19/1999	29	5 U	5 U	17	12
56-50	56-50	8/13/1999	27	5 U	5 U	17	10
56-50	56-50	11/10/1999	20	5 U	5 U	12	8
56-50	56-50	2/9/2000	36	5 U	5 U	17	19
56-50	56-50	5/15/2000	21	5 U	5 U	11	10
56-50	56-50-TR-080600	8/6/2000	7.6	5 U	5 U	3.2 J	4.4 J
56-50	56-50-TR	11/14/2000	7.6	5 U	5 U	5 U	7.6
56-50	56-50	11/14/2000	8	5 U	5 U	5 U	8
56-50	56-50-TR-021401	2/14/2001	20.4	5 U	5 U	14	5.6
56-50	56-50-TR-051601	5/16/2001	23.6	3.6 J	4.3 J	4.7 J	11
56-50	56-50	8/11/2001	5	5 U	5 U	5 U	5
56-50	56-50-TR-081101	8/11/2001	19.8	5 U	5 U	5 U	3.8 J
56-50	56-50-TR-012202	1/22/2002	8.3	5 U	5 U	3.0 J	5.3
56-50	56-50	1/22/2002	24	5 U	5 U	11 J	13 J
56-50	56-50-TR-050402	5/4/2002	7.7	5 U	5 U	3.0 J	4.7 J
56-50	56-50	5/4/2002	26	5 U	5 U	11	15
56-50	56-50-TR-080502	8/5/2002	10.4	5 U	5 U	3.8 J	4.1 J
56-50	56-50-DC-111102	11/11/2002	4.5	5 U	5 U	4.5 J	5 U
56-50	FD14-0203	2/12/2003	(Duplicate) 3.03	0.15 U	0.53 J	0.16 U	0.23 U
56-50	56-50-0203	2/12/2003	18.7	5 U	5 U	5.7	13
56-50	56-50-0503	5/13/2003	21.7	5 U	5 U	7.7	14
56-50	56-50-1103	11/18/2003	13.6	5 U	5 U	4.6 J	9
56-50	FD3-1103	11/18/2003	(Duplicate) 0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
56-50	56-50-0504	5/12/2004	10	5 U	5 U	5 U	10
56-50	56-50-0205	2/9/2005	19	5 U	5 U	8 U	11 U
56-50	56-50-0505	5/12/2005	7	5 U	5 U	5 U	7
56-50	56-50MS-0505	5/12/2005	10.4	5 U	5 U	3.7 J	6.7
56-50	56-50MSD-0505	5/12/2005	22	5 U	5 U	5 U	3.0 J
57-50	57-50	8/20/1998	5.3	5 U	5 U	5 U	5.3
57-50	57-50	11/13/1998	44.7	2 U	2 U	1.5 J	3.2
57-50	57-50	2/13/1999	5.9	0.066 U	0.055 U	2.1	3.8
57-50	57-50	8/13/1999	5 U	5 U	5 U	5 U	10 U
57-50	57-50	11/10/1999	5 U	5 U	5 U	5 U	10 U
57-50	57-50	2/9/2000	5 U	5 U	5 U	5 U	10 U
57-50	57-50	5/15/2000	5 U	5 U	5 U	5 U	10 U



**TABLE 4.3**  
**SUMMARY OF VOCs**  
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57-50	57-50-TR-080600	8/6/2000	5 U	5 U	5 U	5 U	5 U
57-50	57-50-TR	11/14/2000	5 U	5 U	5 U	5 U	5 U
57-50	57-50	11/14/2000	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
57-50	57-50-DC-021401	2/14/2001	5 U	5 U	5 U	5 U	5 U
57-50	57-50-TR-051601	5/16/2001	5 U	5 U	5 U	5 U	5 U
57-50	57-50-TR-081101	8/11/2001	5 U	5 U	5 U	5 U	5 U
57-50	57-50	8/11/2001	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
57-50	57-50-TR-012602	1/26/2002	5 U	5 U	5 U	5 U	5 U
57-50	57-50	1/26/2002	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
57-50	57-50	5/4/2002	5 U	5 U	5 U	5 U	5 U
57-50	57-50-TR-050402	5/4/2002	5 U	5 U	5 U	5 U	5 U
57-50	57-50-TR-080502	8/5/2002	5 U	5 U	5 U	5 U	5 U
57-50	57-50-DC-111102	11/11/2002	5 U	5 U	5 U	5 U	5 U
57-50	FD13-0203	2/12/2003 (Duplicate)	1.9	0.15 U	0.16 U	0.16 U	0.23 U
57-50	57-50-0203	2/12/2003	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0503	5/13/2003	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0803	8/17/2003	5 U	5 U	5 U	5 U	5 U
57-50	57-50-1103	11/18/2003	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0204	2/11/2004	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0504	5/12/2004	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0804	8/17/2004	5 U	5 U	5 U	5 U	5 U
57-50	57-50-1104	11/15/2004	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0205	2/9/2005	5 U	5 U	5 U	5 U	5 U
57-50	57-50-0505	5/12/2005	5 U	5 U	5 U	5 U	5 U
57-50	GW-040606-TR-57-50	4/6/2006	7741	50 U	50 U	2600	5100
59-25	59-25-0503	5/6/2003	5 U	5 U	5 U	5 U	5 U
59-25	GW-041206-TS-59-25	4/12/2006	64.99	0.066 U	0.29 J	46	8
59-50	59-50-0503	5/6/2003	5 U	5 U	5 U	5 U	5 U
59-50	59-50-0803	8/19/2003	5 U	5 U	5 U	5 U	5 U
59-50	GW-041206-TS-59-50	4/12/2006	3280	25 U	25 U	2500	150
60-25	60-25-0803	8/19/2003	5 U	5 U	5 U	5 U	5 U
60-50	60-50-0503	5/6/2003	5 U	5 U	5 U	5 U	5 U
60-50	60-50-0803	8/19/2003	5 U	5 U	5 U	5 U	5 U
60-50	WG-081512-TS-60-50-099	8/15/2012	21.14	0.50 U	0.50 U	0.070 J	0.50 U
61-100	61-100-0603	6/13/2003	5 U	5 U	5 U	5 U	5 U
61-100	GW-041208-TG-61-100	12/4/2008	1850	100 U	100 U	680 J	810 J
61-100	GW-120913-MD-61-100-24	12/9/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
61-25	61-25-0603	6/13/2003	5 U	5 U	5 U	5 U	5 U
61-25	61-25-1103	11/14/2003	5 U	5 U	5 U	5 U	5 U
61-25	GW-041208-TG-61-25	12/4/2008	2980	100 U	100 U	1100 J	1400 J
61-25	GW-120913-MD-61-25-26	12/9/2013	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
61-50	61-50-0603	6/13/2003	5 U	5 U	5 U	5 U	5 U
61-50	61-50-0803	8/20/2003	16	5 U	5 U	5 U	5 U
61-50	61-50-1103	11/14/2003	5 U	5 U	5 U	5 U	5 U
61-50	GW-041208-TG-61-50	12/4/2008	2070	25 U	25 U	750	1000
61-50	GW-120913-MD-61-50-25	12/9/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
61C-100	GW-111313-AK-61C-100-05	11/13/2013	112.468	0.0578 U	1.11	86.4	16.1
61C-130	GW-062213-AK-61C-130-03	6/22/2013	162700	7100	85000	28000	2600
61C-130	GW-111213-AK-61C-130-01	11/12/2013	7690	57.8 U	64.1 U	43.3 U	7690
61C-130	GW-121913-AK-61C-130-35	12/19/2013	120320	0.15 U	0.16 U	24000	95000
61C-160	GW-062213-AK-61C-160-04	6/22/2013	162200	6800	85000	28000	2400
61C-160	GW-111213-JN-61C-160-03	11/12/2013	1033.7	0.578 U	8.14 J	738	166
61C-160	GW-121913-AK-61C-160-36	12/19/2013	76275	0.15 U	0.16 U	2000	74000
61C-25	GW-111213-AK-61C-25-04	11/12/2013	116184	57.8 U	594 J	86000	17700
61C-50	GW-111213-AK-61C-50-02	11/12/2013	82843	57.8 U	644 J	56000	14900
61C-75	WG-071712-BW-61C-75-102	7/17/2012	36740	1100	7300	20000	6500
61C-75	GW-111313-JN-61C-75-06	11/13/2013	38.157	0.0578 U	1.19	29.8	5.36
62-50	62-50-0603	6/11/2003	5 U	5 U	5 U	5 U	5 U
62-50	62-50-0803	8/18/2003	0.5	5 U	5 U	5 U	5 U
63-50	FDI-0603	6/11/2003 (Duplicate)	36574	3 U	4 U	22500	13500
63-50	63-50-0603	6/11/2003	5 U	5 U	5 U	5 U	5 U
63-50	63-50-0803	8/17/2003	5 U	5 U	5 U	5 U	5 U
64-100	64-100-0603	6/12/2003	2.8	5 U	5 U	5 U	5 U
64-100	64-100-0803	8/15/2003	5 U	5 U	5 U	5 U	5 U
64-100	64-100-1103	11/15/2003	19	5 U	5 U	5 U	5 U
64-100	GW-042506-TS-64-100	4/25/2006	15394	630	1800	8300	4200
64-100	GW-041208-TG-64-100	12/4/2008	1990	25 U	25 U	730	950
64-170	64-170-0603	6/12/2003	5 U	5 U	5 U	5 U	5 U
64-170	64-170-0803	8/15/2003	9.1	2 U	2 U	2 U	2 U
64-170	64-170-1103	11/15/2003	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
64-25	64-25-0802	8/15/2003	0.24	2.0 U	2.0 U	2.0 U	2.0 U

TABLE 4.3

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64-25	64-25-0803	8/15/2003	40.45	0.50 U	0.21 J	0.24 J	0.50 U
64-25	64-25-1103	11/15/2003	5 U	5 U	5 U	5 U	10 U
64-25	GW-042506-TV-64-25	4/25/2006	19735	670	3400	12000	3200
64-25	GW-041208-TG-64-25	12/4/2008	770	25 U	25 U	170	420
64-50	64-50-0603	6/12/2003	5 U	5 U	5 U	5 U	10 U
64-50	64-50-0803	8/15/2003	5 U	5 U	5 U	5 U	10 U
64-50	64-50-1103	11/15/2003	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
65-100	GW-080206-ILM-65-100	8/2/2006	235.6	4.6 J	120	68	43
65-100	GW-072710-CM-FD-005	7/27/2010 (Duplicate)	2.65	0.24 J	0.02 U	1.21	1.2
65-100	GW-072710-CM-65-100	7/27/2010	139.851	7.9	5.63	14.4	108
65-100	WG-081212-JN-65-100-110	8/12/2012	2.37 J	0.83 J	0.81 J	0.62 J	0.50 UJ
65-130	GW-071806-ILM-65-130	7/18/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
65-130	GW-072710-CM-FD-006	7/27/2010 (Duplicate)	6.316	2.31 J	0.195 J	3.33	0.481
65-130	GW-072710-CM-65-130	7/27/2010	9305.35	20	9.95 J	7530	1710
65-130	WG-081212-JN-65-130-111	8/12/2012	2.62 J	0.94 J	0.91 J	0.64 J	0.50 UJ
65-130	GW-070913-AW-65-130-14	7/9/2013	0.668	0.0578 U	0.318 J	0.35 J	0.0604 U
65-130	GW-070913-AW-FD-15	7/9/2013 (Duplicate)	1.4776	0.0696 J	0.536 J	0.872 J	0.0604 U
65-15	GW-65-15-TR-0704	7/18/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
65-25	GW-65-25-TR-0704	7/18/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
65-25	GW-080206-ILM-65-25	8/2/2006	643.5	10 U	32	400	200
65-25	GW-072710-MD-65-25	7/27/2010	1.04	0.289 U	0.321 U	1.04 J	0.302 U
65-25	GW-072710-MD-FD-004	7/27/2010 (Duplicate)	486.6	135	8.04 J	312	30.3
65-25	WG-081212-ALK-65-25-108	8/12/2012	56.15 J	1.5 J	25 J	24 J	0.21 J
65-50	GW-65-50-TR-0704	7/10/2004	1.2	0.15 U	0.16 U	1.2 J	0.23 U
65-50	GW-071706-ZF-65-50	7/17/2006	9.9	0.15 U	1.1 J	4.7 J	4.1 J
65-50	GW-071706-ZF-FD2	7/17/2006 (Duplicate)	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
65-50	GW-050609-TG-FD-GW	5/6/2009 (Duplicate)	34	5 U	5 U	5 U	34
65-50	GW-050609-TG-65-50-GW	5/6/2009	5 U	5 U	5 U	5 U	5 U
65-50	WG-081212-ALK-65-50-109	8/12/2012	20.94 J	2.6 J	5.0 J	5.0 J	0.50 UJ
66-15	GW-66-15-TR-0704	7/10/2004	2.6 J	0.15 U	0.16 UJ	2.6 J	0.23 U
66-25	GW-66-25-TR-0704	7/10/2004	2.8	0.15 U	0.16 U	2.8 J	0.23 U
66-50	GW-66-50-TR-0704	7/10/2004	12.21	0.15 U	6.8	4.7 J	0.71 J
67-25	GW-67-25-TR-0704	7/15/2004	9	0.15 U	6.4	2.6 J	0.23 U
67-25	GW-072710-CM-67-25	7/27/2010	1620.94	40.2	10.5	1360	190
67-25	GW-072710-CM-FD-007	7/27/2010 (Duplicate)	28.517 J	2.4	0.307 J	23.8 J	2.01 J
67-50	GW-67-50-TR-0704	7/15/2004	14.6	0.15 U	0.16 U	0.16 U	1.6 J
68-25	GW-68-25-TR-0704	7/14/2004	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
68-50	GW-68-50-TR-0704	7/14/2004	0.468	0.015 U	0.02 U	0.264 J	0.204
68-50	FD7-0205	2/19/2005 (Duplicate)	161752	0.15 U	22	62000	98000
68-50	68-50-0205	2/19/2005	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
68-50	68-50-0505	5/17/2005	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
69-25	GW-69-25-TR-0704	7/14/2004	304.43	0.015 U	0.02 U	2.85	299
69-25	69-25-0205	2/19/2005	5 U	5 U	5 U	5 U	10 U
69-25	69-25-0505	5/17/2005	5 U	5 U	5 U	5 U	5 U
69-25	GW-071106-TR-69-25	7/11/2006	14.605	0.144 U	1.58	12.5	0.303 J
69-25	GW-072710-CM-69-25	7/27/2010	15136	1.5 U	35.6 J	14900	83.4
69-25	GW-072710-CM-FD-008	7/27/2010 (Duplicate)	74.69 J	0.976	50.9	18.3 J	2.4 J
69-50	GW-69-50-TR-0704	7/14/2004	7.43	0.015 U	0.02 U	0.015 U	7.43
69-50	GW-041106-TS-69-50	4/11/2006	502 J	50 U	50 U	92	410
69-50	GW-071106-TR-69-50	7/11/2006	7.016	0.144 U	0.834 J	6.01	0.172 J
6A-100	6A-100	11/1/1988	5 U	5 U	5 U	5 U	5 U
6A-100	GW-042106-LH-6A-100	4/21/2006	19330	230	2700	14000	2200
6A-100	GW-071606-TR-6A-100	7/16/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
6A-24.5	6A-24.5	11/1/1988	5 U	5 U	5 U	5 U	5 U
6A-24.5	6A-25	11/1/1988	5 U	5 U	5 U	5 U	5 U
6A-24.5	GW-071606-TR-6A-24.5	7/16/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
6A-50	6A-50	11/1/1988	5 U	5 U	5 U	5 U	5 U
6A-50	GW-071606-TR-6A-50	7/16/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
70-25	GW-70-25-TR-0704	7/13/2004	8422.77	0.3 U	0.4 U	631	7780
70-25	GW-041506-TS-70-25	4/15/2006	24900	250 U	250 U	4900	20000
70-50	GW-70-50-TR-0704	7/13/2004	536.85	0.3 U	0.02 U	2.85 J	534
70-50	GW-0704-TR-FD1	7/13/2004 (Duplicate)	3150.9 J	5.78 UJ	6.41 UJ	427 J	2710 J
70-50	GW-041506-TS-FD2	4/15/2006 (Duplicate)	15800	33 U	28 U	3700	12000
709-MW1-15	410078-1	10/11/1994	64600 DJ	5000 U,D	5000 U,D	29000 D	31000 D
709-MW15-15	WG-081512-TS-709MW15-15-238	8/15/2012	1.9	0.50 U	0.50 U	0.50 U	0.50 U
709-MW16-15	FD-2-0304	3/11/2004 (Duplicate)	6.8	0.15 U	0.16 U	2.6 J	4.2 J
709-MW19-15	WG-072812-PR-709-MW19-15-249	7/28/2012	25 U	25 U	25 U	25 U	25 U
709-MW20-15	GW-20-15	7/21/2004	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
709-MW20-25	GW-20-25	7/21/2004	1.49	0.015 U	0.02 U	0.015 U	1.49
709-MW20-25	GW-120111-AK-MW20-25	12/1/2011	1.05	0.015 U	0.231 J	0.589	0.23
709-MW20-50	GW-20-50	7/21/2004	15358.1	0.015 U	0.02 U	5680	9520

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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709-MW2-15	410078-2	10/11/1994	65000 D	5000 U,D	5000 U,D	36000 D	29000 D
709-MW3-15	410078-3	10/11/1994	76000 D	5000 U,D	5000 U,D	35000 D	41000 D
709-MW4-15	410078-4	10/11/1994	76000	2500 U	2500 U	33000	43000
709-MW5-15	410078-5	10/11/1994	73000 D	2500 U,D	2500 U,D	31000 D	42000 D
709-MW5-15	GW-120111-AK-MW5	12/1/2011	1.635	0.015 U	0.099 J	1.03	0.506
709-MW5-15	GW-120111-AK-02	12/1/2011	(Duplicate) 72.31 J	0.15 U	0.34 J	30	41
709-MW6-15	410078-6	10/11/1994	72000 D	1200 U,D	1200 U,D	35000 D	37000 D
709-MW6-25	WG-080912-LP-709-MW6-25-229	8/9/2012	49446	21000	22000	6100	220 J
709-MW6-50	WG-080912-LP-709-MW6-50-229	8/9/2012	289986.54	150000	130000	8700	1100 J
709-MW7-15	410078-7	10/11/1994	97000	5000 U	5000 U	37000	60000
709-MW8-15	410078-8	10/11/1994	89000	2500 U	2500 U	37000	52000
709-MW9-15	MW-9-8/95	8/1/1995	71.06 J	8.36 J	62.7 J	-	-
709-MW9-15	MW-9-8/95	8/3/1995	74.71	8.51	66.2	-	-
709-MW9-15	FD-1-0304	3/10/2004	(Duplicate) 343107.9	0.15 U	7.9	170000	170000
7-100	7-100	1/19/1989	5 U	5 U	5 U	5 U	5 U
7-100	7-100	8/29/1991	5 U	5 U	5 U	5 U	5 U
7-100	7-100	9/3/1991	5 U	5 U	5 U	5 U	5 U
7-100	7-100	5/17/1993	5 U	5 U	5 U	5 U	5 U
7-100	7-100	5/24/1993	5 U	5 U	5 U	5 U	5 U
7-100	7-100	6/1/1993	5 U	5 U	5 U	5 U	5 U
7-100	7-100	9/10/1997	5 U	5 U	5 U	5 U	5 U
7-100	7-100	5/27/1998	5 U	5 U	5 U	5 U	5 U
7-100	7-100	8/12/1998	5 U	5 U	5 U	5 U	5 U
7-100	7-100	2/3/1999	5 U	5 U	5 U	5 U	5 U
7-100	7-100	2/11/2000	5 U	5 U	5 U	5 U	5 U
7-100	7-100	8/3/2000	5 U	5 U	5 U	5 U	5 U
7-100	7-100	2/19/2001	5 U	5 U	5 U	5 U	5 U
7-100	7-100	1/24/2002	5 U	5 U	5 U	5 U	5 U
7-100	7-100	5/5/2002	5 U	5 U	5 U	5 U	5 U
7-100	7-100	2/1/2003	5 U	5 U	5 U	5 U	5 U
71-25	71-25-0204	2/10/2004	5 UJ	5 U	5 U	5 U	5 U
71-25	GW-71-25-TR-0704	7/13/2004	7923.07	0.3 U	0.4 U	3070	4790
71-25	GW-042206-TR-71-25	4/22/2006	44200	5200	20000	19000	1000 U
71-25	GW-041208-TG-71-25	12/4/2008	2220	10 U	10 U	630 J	1200 J
71-50	71-50-0204	2/10/2004	5 U	5 U	5 U	5 U	5 U
71-50	GW-71-50-TR-0704	7/13/2004	85.1685	0.015 U	0.0415 J	40	44.4
71-50	FD8-0205	2/19/2005	(Duplicate) 1.9 J	0.15 U	1.9 J	0.16 U	0.23 U
71-50	71-50-0205	2/19/2005	5 U	5 U	5 U	5 U	5 U
71-50	71-50-0505	5/19/2005	5 U	5 U	5 U	5 U	5 U
71-50	GW-042206-TR-71-50	4/22/2006	50900	6600	21000	20000	1400
7-181	7-181	1/19/1989	(Duplicate) 5 U	5 U	5 U	5 U	5 U
7-181	7-181	5/24/1993	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
7-181	7-181	6/1/1993	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
7-181	GW-050206-TV-7-181	5/2/2006	29630 J	250 U	370 J	4800	24000
721-GP1	GW-721-GP1-015	6/22/2004	5.5	0.15 U	0.16 U	0.16 U	0.23 U
721-GP1	GW-721-GP1-025	6/22/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
721-GP1	GW-721-GP1-050	6/22/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
721-GP1	GW-721-GP1-FD1	6/22/2004	(Duplicate) 0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
721-GP2	GW-721-GP2-050	6/21/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP2	GW-721-GP2-015	6/21/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
721-GP2	GW-721-GP2-025	6/21/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
721-GP3	GW-721-GP3-025	6/22/2004	1.2	0.066 U	0.10 J	0.85 J	0.14 U
721-GP3	GW-721-GP3-015	6/22/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP3	GW-721-GP3-050	6/22/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP4	04-10149-GU31I	6/29/2004	16	11	5	5 U	5 U
721-GP4	GW-721-GP4-015	6/29/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP4	GW-721-GP4-025	6/29/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP4	GW-721-GP4-050	6/29/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP4	GW-721-GP4-FD3	6/29/2004	(Duplicate) 0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP5	GW-721-GP5-015	6/23/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP5	GW-721-GP5-025	6/23/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP5	GW-721-GP5-050	6/23/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-GP6	04-10148-GU31H	6/28/2004	10	10	5 U	5 U	5 U
721-GP6	GW-721-GP6-015	6/28/2004	39	27	5 U	-	10 U
721-MW10-15	GW-721-10-15	7/21/2004	24.287	0.015 U	0.02 U	8.87	15.2
721-MW10-25	GW-721-FD3	7/21/2004	(Duplicate) 7.63	0.15 U	0.16 U	0.63 J	0.23 U
721-MW10-25	GW-721-10-25	7/21/2004	9.033	0.015 U	0.043 J	3.56	5.43
721-MW10-50	GW-721-10-50	7/21/2004	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
721-MW11-25	WG-073112-PR-721-MW11-25-270	7/31/2012	100.36	0.33 U	0.28 U	0.36 J	100
721-MW11-75	WG-073112-PR-721-MW11-75-272	7/31/2012	25 U	25 U	25 U	25 U	25 U
721-MW12-25	WG-073012-ALK-721-MW12-25-274	7/30/2012	31.85	0.20 J	1.7	8.6	21

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

721-MW12-50	WG-073012-ALK-721-MW12-50-275	7/30/2012	2570	25 U	25 U	25 U	990
721-MW14-25	WG-080912-TRH-721-MW14-25-279	8/9/2012	53595	570	650	32000	19000
721-MW14-50	WG-080912-TRH-721-MW14-50-281	8/9/2012	5280	180	270	4600	38
721-MW5-15	GW-721-5-15	7/19/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW5-25	GW-721-5-25	7/19/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW5-25	GW-721-FD1	7/19/2004 (Duplicate)	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
721-MW5-50	GW-721-5-50	7/19/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW5-50	GW-042006-TS-721-MW5-50	4/20/2006	3992.1	5 U	5 U	280	3300
721-MW5-75	WG-082512-JN-721-MW5-75-257	8/25/2012	0.65	0.066 U	0.055 U	0.50 J	0.15 J
721-MW6-15	GW-721-6-15	7/19/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW6-25	GW-721-6-25	7/19/2004	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
721-MW6-50	GW-721-6-50	7/19/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW7-15	GW-721-7-15	7/19/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW7-15	WG-080912-TRH-721-MW7-15-261	8/9/2012	167500	3100	42000	120000	400 J
721-MW8-15	GW-721-8-15	7/20/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW9-15	GW-721-9-15	7/20/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW9-15	WG-072212-DJT-721-MW9-15-262	7/22/2012	88340	540	710 U	29000	2300
721-MW9-25	GW-721-9-25	7/20/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-MW9-50	GW-721-9-50	7/20/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
721-PZ-1	PZ1-0604-OUT	6/4/2004	70370	66 U	21000	37000	12000
721-PZ-2	PZ2-0604-OUT	6/4/2004	19000	33 U	150 U	6000	13000
721-PZ-3	FD1-060404	6/4/2004 (Duplicate)	38000	1700	27000	7800	115.00 U
721-PZ-4	721-PZ-4~Outgoing~	8/28/2004	0.77	0.50 U	0.50 U	0.15 J	0.50 U
721-PZ-5	721-PZ-5~Outgoing~	8/28/2004	5 U	5 U	5 U	5 U	10 U
72-50	GW-041506-TS-72-50	4/15/2006	9692.8	2 U	1.5 J	1700	7900
72-50	GW-041506-TS-FD	4/15/2006 (Duplicate)	15744	33 U	48 J	3600	12000
72-50	GW-041208-TG-72-50	12/4/2008	1700	10 U	10 U	700	740
73-25	73-25-0205	2/19/2005	5 U	5 U	5 U	5 U	10 U
73-25	FD6-0505	5/19/2005 (Duplicate)	3.1	0.15 U	0.16 U	3.1 J	0.23 U
73-25	73-25-0505	5/19/2005	6	5.0 U	5.0 U	6	5.0 U
73-25	GW-042106-TS-73-25	4/21/2006	35900	5700	21000	9200	1000 U
73-50	GW-042106-TS-73-50	4/21/2006	92600	13000	46000	31000	1000 U
74-100	WG-082012-PR-74-100-120	8/20/2012	460	5.0 U	59	330	56
74-100	GW-121113-KW-74-100-34	12/11/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
74-50	GW-041406-TR-74-50	4/14/2006	1447	50 U	50 U	64	1200
74-50	GW-121013-LP-74-50-31	12/10/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
74-75	GW-041406-TR-74-75	4/14/2006	828	2 U	2 U	43	690
74-75	GW-121113-BP-74-75-33	12/11/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
7-50B	7-50B	11/17/1988	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7-50B	7-50B	11/17/1988 (Duplicate)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
7-50B	7-50B	1/19/1989	5 U	5 U	5 U	5 U	10 U
7-50B	7-50B	8/29/1991	5 U	5 U	5 U	5 U	5 U
7-50B	7-50B	9/6/1991	5 U	5 U	5 U	5 U	5 U
7-50B	7-50B	5/18/1993	5 U	5 U	5 U	5 U	5 U
7-50B	7-50B	5/24/1993	5 U	5 U	5 U	5 U	5 U
7-50B	7-50B	6/1/1993	5 U	5 U	5 U	5 U	5 U
75-100	GW-072606-ILM-75-100	7/26/2006	15393.6	5250	9690	375	78.6 J
75-100	GW-072710-CM-FD-002	7/27/2010 (Duplicate)	3511	0.3 U	0.4 U	331	3180
75-100	GW-072710-CM-75-100	7/27/2010	10119.2	74.5	84.9	9820	45
75-130	GW-072606-ILM-75-130	7/26/2006	5277.3	14.4 U	15.4 J	2170	3040
75-130	GW-072710-CM-FD-003	7/27/2010 (Duplicate)	490.797	50.4	8.02	379	45.7
75-130	GW-072710-CM-75-130	7/27/2010	2552.63	5.23	26.8	2470	39.7
75-50	GW-072606-ILM-75-50	7/26/2006	27135.3	502	582	23000	2970
75-50	GW-021009-TG-FD01-S	2/10/2009 (Duplicate)	295.2	0.75 U	0.80 U	0.80 U	1.2 U
75-50	GW-021009-TG-MW-75-GW	2/10/2009	390.8	0.75 U	0.80 U	0.80 U	1.2 U
75-50	GW-070609-TG-MW-75-GW	7/6/2009	0.349 J	0.144 UJ	0.126 UJ	0.349 J	0.162 UJ
75-50	GW-070609-TG-MW-75-S	7/6/2009	R	R	R	1.78 J	R
75-75	GW-072710-CM-FD-001	7/27/2010 (Duplicate)	134.127	0.015 U	0.02 U	126	7.7
76-100	GW-042206-TR-76-100	4/22/2006	16200	2500	6600	7100	1000 U
76-100	GW-070706-TR-76-100	7/7/2006	0.536	0.144 U	0.126 U	0.298 J	0.238 J
76-100	GW-051208-TG-76-100	12/5/2008	26 J	5 U	5 U	5 U	14
77C-130	WG-071612-DJT-77C-130-130	7/16/2012	58160	1800	9500	37000	8000
77C-160	WG-071612-DJT-FD09-306	7/16/2012 (Duplicate)	30960	750	5400	18000	5900
77C-25	WG-071612-DJT-77C-25-126	7/16/2012	39000	1000	6400	22000	8300
78-25	GW-042506-TS-78-25	4/25/2006	17799.2	700	2900	11000	2800
78-25	GW-031208-TG-78-25	12/3/2008	6100 J	2500 U	2500 U	6100	2500 U
78C-100	WG-071912-SP-78C-100-135	7/19/2012	71500	1000 U	1000 U	28000	3100
78C-130	WG-071912-SP-78C-130-136	7/19/2012	85300	1000 U	1000 U	30000	1800
78C-160	WG-071912-SP-78C-160-137	7/19/2012	73800	1000 U	1000 U	22000	1700
78C-50	WG-071912-SP-78C-50-133	7/19/2012	92020	620	500 U	31000	1900
79-50	GW-021009-TG-MW-79-S	2/10/2009	146.35	2.5 U	1.5 J	8	2.8

TABLE 4.3

SUMMARY OF VOCs  
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 TACOMA, WASHINGTON

79-50	GW-070609-TG-MW-79-GW	7/6/2009	R	R	R	0.667 J	R
79-50	GW-070609-TG-MW-79-S	7/6/2009	R	R	R	1.94 J	R
80-25	GW-021209-TG-MW80-S	2/12/2009	9.5 U	0.75 U	0.80 U	0.80 U	1.2 U
80-25	GW-070609-TG-MW80-S	7/6/2009	10.293	0.144 U	1.72	7.66	0.493 J
81-50	GW-021209-TG-FD1-S	2/12/2009	(Duplicate) 346.4	5.0 U	1.3 J	61	3.5 J
81-50	GW-070609-TG-MW81-GW	7/6/2009	5.8117	0.0578 U	0.0717 J	5.74	0.0604 U
81-50	GW-070609-TG-MW81-S	7/6/2009	5.7482 J	0.0578 UJ	0.0682 J	5.68 J	0.0604 UJ
82-100	GW-072610-MD-FD-001	7/26/2010	(Duplicate) 2181.18	0.3 U	4.93 J	43.8	2130
82-150	GW-070610-MD-FD-001	7/6/2010	(Duplicate) 2.4125	0.0578 U	0.0641 U	2.19	0.0604 U
82-150	GW-070710-CM-FD-002	7/7/2010	(Duplicate) 0.798	0.0578 U	0.409 J	0.389 J	0.0604 U
82-150	GW-072610-MD-FD-003	7/26/2010	(Duplicate) 2849.67	0.3 U	5.16 J	39.7	2800
82-230	GW-060810-MD-FD-001	6/8/2010	(Duplicate) 0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
82-230	GW-060810-MD-82-250-002	6/8/2010	61400 J	2500 U	9400	45000	7000
82-230	GW-060910-MD-FD-002	6/9/2010	(Duplicate) 1.7	0.15 U	0.16 U	0.16 U	0.23 U
82-230	GW-061010-MD-FD-004	6/10/2010	(Duplicate) 2.05	5.00 U	5.00 U	5.00 U	5.00 U
82-230	GW-061010-MD-FD-003	6/10/2010	(Duplicate) 49090	190	6800 J	35000 J	6600 J
82-230	GW-061110-MD-FD-005	6/11/2010	(Duplicate) R	1.5 J	0.41 J	R	R
82-230	GW-061610-MD-82-250-008	6/16/2010	68000 J	2000	14000	52000	500 U
82-230	GW-062110-MD-FD-009	6/21/2010	(Duplicate) 35050	4500	13000	15000	1800
82-230	GW-062110-MD-82-250-010	6/21/2010	56950	720	4000	45000	6100
82-230	GW-062110-MD-82-250-011	6/21/2010	73450	860 J	8400	55000	8300
82-230	GW-062110-MD-FD-010	6/21/2010	(Duplicate) 151800	4500	61000	28000	1700
82-230	GW-062210-CM-82-250-012	6/22/2010	17810	780	3300	10000	3400
82-230	GW-062210-CM-FD-011	6/22/2010	(Duplicate) 31600	1800	22000	3800	1000 U
82-230	GW-072610-CM-FD-004	7/26/2010	(Duplicate) 789.2	1.44 U	4.2 J	382	403
82-30	GW-072610-CM-FD-002	7/26/2010	(Duplicate) 11760.4	246	7840	2560	1070
84C-160	WG-071812-DJT-84C-160-152	7/18/2012	88700	1100	1300	39000	1200
84C-25	WG-071812-DJT-84C-25-147	7/18/2012	93200	1000	1100	41000	1300
84C-50	WG-071812-DJT-84C-50-148	7/18/2012	100700	1200	1000 U	44000	2300
84C-75	WG-071812-DJT-FD10-307	7/18/2012	(Duplicate) 73000	1000 U	1000 U	32000	1600
84C-75	WG-071812-DJT-84C-75-149	7/18/2012	75200	1000 U	1000 U	33000	1700
85C-100	WG-072012-DJT-85C-100-156	7/20/2012	91790	790	500 U	28000	2500
85C-25	WG-072012-DJT-85C-25-153	7/20/2012	79700	500 U	500 U	25000	1700
86C-160	WG-072512-MD-86C-160-163	7/25/2012	3.37	0.12 J	0.21 J	0.48 J	1.4
86C-75	WG-072512-MD-86C-75-161	7/25/2012	3.33	0.12 J	0.25 J	0.46 J	1.4
88C-100	WG-081612-TS-88C-100-174	8/16/2012	25	0.50 U	0.50 U	0.50 U	0.50 U
88C-130	WG-081612-TS-88C-130-175	8/16/2012	130	2.5 U	2.5 U	2.5 U	2.5 U
88C-130	GW-073013-CH-88C-130-23	7/30/2013	2.2	0.15 U	0.16 U	2.2	0.23 U
88C-160	WG-081612-TS-88C-160-176	8/16/2012	0.13	0.50 U	0.50 U	0.50 U	0.50 U
88C-160	GW-073013-CH-88C-160-22	7/30/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
88C-25	WG-081612-TS-88C-25-171	8/16/2012	3.03	0.50 U	0.14 J	0.49 J	0.50 U
88C-50	WG-081612-TS-88C-50-172	8/16/2012	2.88	0.50 U	0.50 U	0.38 J	0.50 U
88C-75	WG-081612-TS-88C-75-173	8/16/2012	8.4	0.10 J	0.50 U	0.11 J	0.50 U
8-99R	8-99R	5/28/1998	113.9	5 U	5 U	7.9	65
8-99R	8-99R	8/12/1998	162.6	5.0 U	5.0 U	8.6	87
8-99R	8-99R	2/6/1999	99.7	5.0 U	5.0 U	8.7	5.0 U
8-99R	8-99R	8/6/2000	266	5.0 U	5.0 U	6	140
8-99R	8-99R-DC-030301	3/3/2001	348	5 U	5 U	5 U	260
8-99R	8-99R	1/29/2002	458.8	5.0 U	5.0 U	8.8	240 D
8-99R	8-99R-TR-050502	5/5/2002	270	5 U	5 U	11	210
8-99R	8-99R	5/5/2002	470	5.0 U	5.0 U	10	220
8-99R	8-99R-TR-080602	8/6/2002	378	5 U	5 U	8	220
8-99R	8-99R-RW-110602	11/6/2002	219	5 U	5 U	8	170
8-99R	8-99R	2/1/2003	523	5 U	5 U	10	250
8-99R	8-99R-0203	2/5/2003	557	5 U	5 U	7 J	240 J
8-99R	8-99R-0503	5/6/2003	792	5 U	5 U	12	330
8-99R	8-99-0803	8/19/2003	89.7	5 U	5 U	6.7	53
8-99R	8-99R-1103	11/17/2003	569	5 U	5 U	9	320
8-99R	8-99-0204	2/17/2004	89	5 U	5 U	17	72
8-99R	8-99R-0504	5/11/2004	641	5 U	5 U	11	270
8-99R	8-99R-0804	8/19/2004	955	5 U	5 U	15	440
8-99R	FD1-1104	11/12/2004	(Duplicate) 72.8	0.15 U	2.6	63	5.7
8-99R	8-99R-1104	11/12/2004	641	5 U	5 U	11	360
8-99R	8-99R-0205	2/16/2005	557	5 U	5 U	7 J	240 J
8-99R	8-99R-0505	5/19/2005	636	5 U	5 U	16	280
8-99R	GW-050106-TS-8-99R	5/1/2006	6984	5 U	5 U	3900	2400
90C-100	WG-072312-AK-90C-100-186	7/23/2012	63400	500 U	500	20000	2800
90C-130	WG-072312-DJT-90C-130-187	7/23/2012	14400	1000 U	1000 U	9100	1100
90C-160	WG-072312-PR-90C-160-188	7/23/2012	33830	270	270	12000	1600
90C-160	GW-062613-AK-90C160-09	6/26/2013	144400	7200	84000	27000	2900
90C-50	WG-072312-AK-FD15-312	7/23/2012	(Duplicate) 65550	110	630	20000 D	5900

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

90C-50	WG-072312-AK-90C-50-184	7/23/2012	79900	500 U	700	27000	5800
90C-75	GW-092513-NH-90C-75	9/25/2013	11800	57.8 U	64.1 U	11800	60.4 U
9-100	9-100	10/31/1988	398	5 U	5 U	8	230
9-100	GW-071506-TR-9-100	7/15/2006	155.6	0.15 U	0.16 U	150	2.8 J
91C-100	WG-071812-BW-91C-100-192	7/18/2012	20053	500	2500	3000	14000
91C-160	WG-071812-BW-91C-160-194	7/18/2012	10702	120	770	260	9500
91C-25	WG-071812-BW-91C-25-189	7/18/2012	1473	120	300	490	510
91C-50	WG-071812-BW-91C-50-190	7/18/2012	20000	1000 U	1000 U	1000	19000
91C-75	WG-071812-BW-91C-75-191	7/18/2012	28223	33 U	73 J	150 J	28000
92C-100	WG-071812-AK-92C-100-199	7/18/2012	21990	590	5200	8700	7500
92C-160	WG-071812-AK-92C-160-201	7/18/2012	21950	550	5200	9000	7200
92C-50	WG-071812-AK-92C-50-197	7/18/2012	26100	480	5900	5500	14000
92C-75	WG-071812-AK-92C-75-198	7/18/2012	26656.7	450	5700	5300	15000
93C-130	WG-071712-DJT-93C-130-206	7/17/2012	35290	620	7600	19000	7100
93C-25	WG-071712-DJT-93C-25-202	7/17/2012	43140	1000	9500	23000	8800
93C-50	WG-071712-DJT-FD14-311	7/17/2012	26680	680	8300	11000	6700
93C-50	WG-071712-DJT-93C-50-203	7/17/2012	30610	590	7400	15000 D	7100
93C-75	WG-071712-DJT-93C-75-204	7/17/2012	29190	790	8000	12000	8400
94C-100	GW-092413-NH-94C-100	9/24/2013	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
94C-130	WG-072412-DJT-94C-130-213	7/24/2012	19160	50 U	830	7600	2400
94C-130	GW-092413-NH-94C-130	9/24/2013	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
94C-160	WG-072412-DJT-94C-160-214	7/24/2012	40020	15 J	1400	16000	7100
94C-25	WG-072412-DJT-94C-25-209	7/24/2012	1875.4	29	1100	460	130
94C-50	WG-072412-DJT-94C-50-210	7/24/2012	94530	66 U	3100	61000	27000
94C-75	GW-092413-NH-94C-75	9/24/2013	102	0.289 U	0.321 U	0.217 U	102
95-15	WG-082512-PR-95-15-215	8/25/2012	0.54	0.066 U	0.055 U	0.26 J	0.28 J
95C-100	WG-071912-DJT-95C-100-219	7/19/2012	80400	1000 U	1000 U	36000	1700
95C-130	WG-071912-DJT-95C-130-220	7/19/2012	73200	1000 U	1000 U	31000	2000
95C-160	WG-071912-DJT-95C-160-221	7/19/2012	72700	1000 U	1000 U	32000	1800
95C-25	WG-071912-DJT-95C-25-216	7/19/2012	75500	1000 U	1000 U	33000	2200
95C-50	WG-071912-DJT-95C-50-217	7/19/2012	82400	1000 U	1000 U	35000	2600
95C-75	WG-071912-DJT-95C-75-218	7/19/2012	57300	1000 U	1000 U	27000	2000
A-1	A-1	9/26/1996	68	5 U	5 U	5 U	51
A-1	A-1	2/24/1997	62	5 U	5 U	5 U	44
A-1	A-1	5/28/1997	17	5 U	5 U	5 U	12
A-1	A-1	8/13/1997	11	5 U	5 U	5 U	11
A-1	A-1	11/2/1997	23	5 U	5 U	5 U	16
A-1	A-1	2/13/1998	17	5 U	5 U	5 U	11
A-1	A-1	5/8/1998	7	5 U	5 U	5 U	7
A-1	A-1	11/10/2000	15	5 U	5 U	5 U	10 J
A-1	A-1	8/2/2002	5	5 U	5 U	5 U	5
A-1	A-1	11/4/2002	6	5 U	5 U	5 U	6
A-1	A-1	2/1/2003	7 J	5 UJ	5 U	5 U	7
A-1	A-1	5/11/2003	6	5 U	5 U	5 U	6
A-1	A1-0503	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-1	A-1	8/1/2003	6.4 U	6.4 U	5 U	6.4 U	6.4 U
A-1	A-1-0505	5/16/2005	5 UJ	5 U	5 U	5 U	5 UJ
A-2	A-2	9/26/1996	5.9	5 U	5 U	5 U	5.9
A-2	A-2	2/24/1997	6	5 U	5 U	5 U	6
A-2	A-2	11/2/1997	12	5 U	5 U	3.5 J	5.1
A-2	A-2	8/13/1998	10.2	0.066 U	0.055 U	1.1	7.7
A-2	A-2	11/10/2000	2.09	0.50 U	0.50 U	0.12 J	0.53
A-2	A-2	8/2/2002	5 U	5 U	5 U	5 U	5 U
A-2	A-2	11/4/2002	5 U	5 U	5 U	5 U	5 U
A-2	A-2	2/1/2003	5 U	5 U	5 U	5 U	5 U
A-2	A-2	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-2	A2-0503	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-2	A-2	8/1/2003	5 U	5 U	5 U	5 U	5 U
A-2	A-2	11/12/2003	5 U	5 U	5 U	5 U	5 U
A-2	A-2-0505	5/14/2005	5 U	5 U	5 U	5 U	5 U
A-2A	A-2A-0203	2/9/2003	5 U	5 U	5 U	5 U	5 U
A-2A	A2A-0503	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-2A	A2-A	5/11/2003	5 UJ	5 UJ	5 U	5 U	5 U
A-2A	A2-A	8/1/2003	5 U	5 U	5 U	5 U	5 U
A-2A	A2-A	11/12/2003	6.4 U	6.4 U	5 U	6.4 U	6.4 U
A-2A	A-2A-0204	2/5/2004	5 U	5 U	5 U	5 U	5 U
A-2A	A-2A-0804	8/10/2004	5 U	5 U	5 U	5 U	5 U
A-2A	A-2A-0205	2/14/2005	5 U	5 U	5 U	5 U	5 U
A-3	A-3	9/26/1996	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
A-3	A-3	2/2/1998	0.38	0.50 U	0.50 U	0.50 U	0.50 U
A-3	A-3	5/8/1998	71	5 U	36	25	10 U

(Duplicate)

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

A-3	A-3	11/10/2000	66	5 U	5 U	66	10 U
A-3	A-3	8/2/2002	74	5 U	5 U	74	5.0 U
A-3	A-3	11/4/2002	80	5.0 U	5.0 U	80	5.0 U
A-3	A-3	2/1/2003	170	5.0 U	5.0 U	170	5.0 U
A-3	A3-0503	5/11/2003	300	5.0 U	5.0 U	170	110
A-3	A-3	8/1/2003	224	5.0 U	5.0 U	200	14
A-3	A-3	11/14/2003	270	5.0 U	5.0 U	200	52
A-3	A-3-0505	5/16/2005	589	5 U	5 U	247 J	292
A-4	A-4	9/26/1996	321	5 U	5 U	90 J	200 J
A-4	A-4	2/24/1997	649	5 U	5 U	140	440
A-4	A-4	5/28/1997	162	5 U	5 U	64 J	85 J
A-4	A-4	8/13/1997	556	5 U	5 U	12	470
A-4	A-4	11/3/1997	610	5 U	5 U	11	560
A-4	A-4	2/2/1998	320	25 U	25 U	25 U	320
A-4	A-4	11/10/2000	290	25 U	25 U	25 U	290
A-4	A-4	8/2/2002	258	5 U	5 U	5 U	250
A-4	A-4	11/4/2002	90	5 U	5 U	5 U	90
A-4	A-4	2/1/2003	80	5 U	5 U	5 U	80
A-4	A-4	5/11/2003	29	5 U	5 U	5 U	29
A-4	A4-0503	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-4	A-4	8/1/2003	9	5 U	5 U	5 U	9
A-4	A-4	11/12/2003	8	5 U	5 U	5 U	8
A-4	A-4-0505	5/14/2005	5 U	5 U	5 U	5 U	5 U
A-5	A-5	2/22/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	5/21/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	5/21/1996 (Duplicate)	5 U	5 U	5 U	5 U	5 U
A-5	A-5	6/19/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	7/19/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	8/19/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	8/19/1996 (Duplicate)	5 U	5 U	5 U	5 U	5 U
A-5	A-5	9/25/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	11/12/1996	5 U	5 U	5 U	5 U	5 U
A-5	A-5	2/10/1997	1.2	5 U	5 U	5 U	1.2 J
A-5	A-5	8/13/1997	5 U	5 U	5 U	5 U	5 U
A-5	A-5	11/3/1997	5 U	5 U	5 U	5 U	5 U
A-5	A-5	2/2/1998	5 U	5 U	5 U	5 U	5 U
A-5	A-5	5/8/1998	5 U	5 U	5 U	5 U	5 U
A-5	A-5	2/16/1999	5 U	5 U	5 U	5 U	5 U
A-5	A-5	2/2/2000	3.379	0.066 U	0.055 U	0.099 J	2.8
A-5	A-5-TR-081100	8/11/2000	5 U	5 U	5 U	5 U	5 U
A-5	A-5-TR-022101	2/21/2001	5 U	5 U	5 U	5 U	5 U
A-5	A-5	8/14/2001	5 U	5 U	5 U	5 U	5 U
A-5	A-5-TR-013102	1/31/2002	5 U	5 U	5 U	5 U	5 U
A-5	A-5-TR-080202	8/2/2002	5 U	5 U	5 U	5 U	5 U
A-5	A-5	11/4/2002	5 U	5 U	5 U	5 U	5 U
A-5	A-5	2/1/2003	5 U	5 U	5 U	5 U	5 U
A-5	A-5-0203	2/10/2003	5 U	5 U	5 U	5 U	5 U
A-5	A-5	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-5	A5-0503	5/11/2003	5 U	5 U	5 U	5 U	5 U
A-5	A-5	8/1/2003	5 U	5 U	5 U	5 U	5 U
A-5	A-5-0803	8/14/2003	5 U	5 U	5 U	5 U	5 U
A-5	A-5	11/12/2003	5 U	5 U	5 U	5 U	5 U
A-5	A-5-0204	2/5/2004	5 U	5 U	5 U	5 U	5 U
A-5	A-5-0205	2/14/2005	5 U	5 U	5 U	5 U	5 U
A-5	A-5-0505	5/14/2005	5 U	5 U	5 U	5 U	5 U
A-6	A-6	8/13/1997	5 U	5 U	5 U	5 U	5 U
A-6	A-6	2/2/1998	47.775	0.066 U	6.3	31	8.3
A-6	A-6	5/8/1998	6.47	0.17 J	0.28 J	1.4	0.23 J
A-6	A-6	11/10/2000	4.23	0.50 U	0.50 U	0.45 J	0.39 J
A-6	A-6	8/2/2002	3.22	0.50 U	0.50 U	0.50 U	0.50 U
A-6	A-6	11/4/2002	3.13	0.50 U	0.50 U	0.50 U	0.95
A-6	A-6	2/1/2003	3.61	0.14 J	0.50 U	0.50 U	0.50 U
A-6	A-6	5/11/2003	2.69	0.21 J	0.50 U	0.50 U	0.50 U
A-6	FD4-0503	5/11/2003 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
A-6	A6-0503	5/11/2003	8.3 J	8.3 J	5 UJ	5 UJ	5 UJ
A-6	A-6	8/1/2003	39	14	5 U	-	10 U
A-6	A-6	11/12/2003	94	14	10	-	10 U
A-6	A-6-0505	5/14/2005	20.23	16	3.7	0.20 J	0.50 U
B-1	B-1	9/26/1996	8	3 J	5 U	-	10 U
B-1	B-1	2/24/1997	6	3 J	5 U	-	10 U
B-1	B-1	5/28/1997	8	3 J	5 U	-	10 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

B-1	B-1	8/13/1997	6	3 J	5 U	-	10 U
B-1	B-1	11/3/1997	5 U	5 U	5 U	5 U	5 U
B-1	B-1	2/11/1998	5 U	5 U	5 U	5 U	5 U
B-1	B-1	11/10/2000	4.4	2.2	0.96	0.77	0.18 J
B-1	B-1	8/2/2002	89	67	17	-	10 U
B-1	B-1	11/4/2002	25.9	22	3.9 J	5 U	5 U
B-1	B1-0503	5/12/2003	86	80	3 J	-	10 U
B-1	B-1	8/1/2003	17.14	12	4.7	0.33 J	0.50 U
B-1	B-1-0505	5/14/2005	20.3	12	3.6 J	5 U	5 U
B-2	B-2	2/24/1997	35.39	11	12	1.3	0.50 U
B-2	B-2	5/28/1997	36.39	11	12	1.3	0.50 U
B-2	B-2	8/13/1997	103500	9300	2400	71000	17000
B-2	B-2	11/3/1997	39400	4800	1600	21000	12000
B-2	B-2	2/2/1998	44800	12000	3800	14000	15000
B-2	B-2	5/8/1998	41500	18000	5000	6500	12000
B-2	B-2	11/10/2000	42000	21000	5700	5600	9700
B-2	B-2	8/2/2002	39600	21000	6800	3700	8100
B-2	B-2	11/4/2002	50400	35000	10000	3100	2300
B-2	B-2	2/1/2003	58210	45000	10000	2300	910
B-2	B2-0503	5/11/2003	43100	21000	5400	5700	11000
B-2	B-2	5/11/2003	54800	39000	9900	2800	3100
B-2	B-2	8/1/2003	37000	18000	6100	1900	11000
B-2	B-2	11/12/2003	49300	32000	9500	2800	5000
B-2	B-2-0505	5/14/2005	45400	14000	4400	13000	14000
B-3	B-3	5/21/1996	20780	17000	3200	580	500 U
B-3	B-3	6/19/1996	40100	32000 D	5200	1400	1500
B-3	B-3	7/19/1996	20880	17000	3100	780	500 U
B-3	B-3	8/19/1996	25330	19000	3800	830	1700
B-3	B-3	2/10/1997	23260	18000	4200	860	200
B-3	B-3	5/16/1997	19640 J	16000 J	2900	640	100 J
B-3	B-3	8/13/1997	23002	18000	4000	760	72 J
B-3	B-3	11/3/1997	18104	11000	4900	1600	580
B-3	B-3	11/3/1997 (Duplicate)	24390	15000	7300 J	1900	190
B-3	B-3	2/2/1998	19017	310 J	2800	12000	3800
B-3	B-3	8/13/1998	82400	1000 U	1000 U	35000	45000
B-3	B-3	2/14/1999	58000	1000 U	1000 U	23000	35000
B-3	B-3	8/23/1999	36660	500 U	500 U	12000 J	24000 J
B-3	B-3	2/2/2000	42920	500 U	500 U	19000	23000
B-3	FD13-TR-022701	2/27/2001 (Duplicate)	27.15	0.15 U	0.95 J	1.6 J	8.6
B-3	B-3-TR-022701	2/27/2001	2850	50 U	50 U	900	1900
B-3	B-3	8/14/2001	43000	500 U	500 U	22000	20000
B-3	B-3-TR-013102	1/31/2002	3050	50 U	50 U	900	2100
B-3	B-3-TR-080202	8/2/2002	37680	40 U	220	6300	31000 D
B-3	B-3	11/4/2002	51400	500 U	500 U	28000	22000
B-3	B3-0503	5/12/2003	17282	6	32	8200 J	8700 J
B-3	B-3	5/12/2003	38850	500 U	500 U	21000	17000
B-3	B-3	8/1/2003	30000	500 U	500 U	17000	13000
B-3	B-3-0803	8/14/2003	36000	500 U	500 U	7000	29000
B-3	B-3	11/12/2003	36600	500 U	500 U	15000	21000
B-3	B-3-0204	2/5/2004	467	67	74	220	96
B-3	B-3-0205	2/14/2005	20300	500 U	500 U	7300	13000
B-3	B-3-0505	5/14/2005	39200	500 U	500 U	7700	31000
B-4	B-4	9/26/1996	17260 J	100 U	310	3700	13000
B-4	B-4	2/24/1997	20600	500 U	500 U	4600	16000
B-4	B-4	5/30/1997	19500	500 U	500 U	4500	15000
B-4	B-4	8/13/1997	18540	500 U	540	5000	13000
B-4	FD-1-TR	11/10/2000 (Duplicate)	105793 J	23	330 J	65000	39000
B-4	B-4	8/2/2002	19398	100 U	530	4700	14000
B-4	B-4	2/1/2003	11750	500 U	520	2600	8500
B-4	B4-0503	5/12/2003	10952	50 U	250	2100	8500
B-4	B-4	5/12/2003	17930	100 U	550	5300	12000
B-4	B-4	11/12/2003	11364	61	420	2200	8600
B-4	B-4-0505	5/16/2005	12955	50 U	85	810	12000
C-1	C-1	9/26/1996	19500	16000	2200	1300	140 U
C-1	C-1	8/14/1997	751	50 U	340 J	250 J	69 J
C-1	C-1	11/17/1997	624	5 U	280	190	110
C-1	C-1	2/11/1998	685	5 U	380	200	59
C-1	C-1	3/1/1998	699	5 U	380	210	61
C-1	C-1	4/1/1998	402	5 U	5 U	110	260
C-1	C-1	5/8/1998	895	120 J	94 J	260 J	370
C-1	C-1	6/1/1998	581	58 J	44 J	88 J	360



**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

C-1	C-1	7/1/1998	302	5 U	5 U	5 U	280
C-1	C-1	8/12/1998	406	5 U	5 U	5 U	380 J
C-1	C-1	8/13/1998	612	10 U	49 J	66 J	440 J
C-1	C-1	9/1/1998	432	10 U	25	44	320
C-1	C-1	10/1/1998	567	10 U	320	150	57
C-1	C-1	11/1/1998	786	10 U	520	180	52
C-1	C-1	12/1/1998	723	10 U	510	150	34
C-1	C-1	2/1/1999	5 U	5 U	5 U	5 U	5 U
C-1	C-1	5/1/1999	21 J	2 J	10	6.3	2.7 J
C-1	C-1	8/1/1999	549	50 U	290	200	59
C-1	C-1	2/1/2000	419	10 U	200 J	180 J	25 J
C-1	C-1	2/1/2003	552.4	5 U	240	250	39
C-1	C-1	5/11/2003	461.1	2.7 J	210	200	31
C-1	C-1	8/1/2003	473	5 U	210	210	33
C-10	C-10	9/26/1996	491.5	5 U	200	230	37
C-10	C-10	2/24/1997	422.4	5 U	150	220	38
C-10	C-10	5/29/1997	480.5	5 U	140	260	55
C-10	C-10	8/13/1997	26.4	20	3.9	2.5	0.14 U
C-10	C-10	4/1/1998	3085	23 J	140	2200	670
C-10	C-10	5/8/1998	76060	6600	44000	20000	3900
C-10	C-10	6/1/1998	52540	1000	5000	23000	22000
C-10	C-10	7/1/1998	41390	400 J	3700	21000	4900
C-10	C-10	8/12/1998	3517	1700	1300	360	64
C-10	C-10	9/1/1998	34.46	7.1	12	7.7	1.5
C-10	C-10	12/1/1998	13	5 U	8	5	5 U
C-10	C-10-0505	5/16/2005	5 U	5 U	5 U	5 U	5 U
C-2	C-2	2/1/2003	500 U	500 U	500 U	500 U	500 U
C-2	C-2	5/11/2003	6.18	1.5	3.9	0.78 J	0.14 U
C-3	C-3	3/1/1996	10.5	3.2	5.8	1.1	0.12 J
C-3	C-3	6/19/1996	300	5 U	5 U	5 U	200
C-3	C-3	5/14/1998	30.95 J	0.066 U	0.055 U	0.15 J	3.8
C-3	C-3	2/14/1999	6.97	0.50 U	0.50 U	0.50 U	0.23 J
C-3	C-3	2/3/2000	5 U	5 U	5 U	5 U	5 U
C-3	C-3-TR-081100	8/11/2000	5	5 U	5 U	5	5 U
C-3	C-3-TR-022501	2/25/2001	1.1	0.066 U	0.055 U	0.062 U	1.1
C-3	FD9-TR-022501	2/25/2001 (Duplicate)	91341	6 U	8 U	13600	77000
C-3	C-3-TR-013102	1/31/2002	2.4	2 U	2 U	2 U	2 U
C-3	C-3-TR-080202	8/2/2002	9.52	2.0 U	2.0 U	2.0 U	2.0 U
C-3	C-3-0803	8/14/2003	5 U	5 U	5 U	5 U	5 U
C-3	C-3-0804	8/11/2004	31	2 U	2 U	2 U	2 U
C-3	FD-4-0205	2/14/2005 (Duplicate)	0.106	0.015 U	0.106 J	0.015 U	0.025 U
C-3	C-3-0505	5/16/2005	500 U	500 U	500 U	500 U	500 U
C-4	C-4	2/24/1997	5 U	5 U	5 U	5 U	5 U
C-4	C-4	5/29/1997	5 U	5 U	5 U	5 U	5 U
C-4	C-4	8/15/1997	5 U	5 U	5 U	5 U	5 U
C-4	C-4	11/17/1997	5 U	5 U	5 U	5 U	5 U
C-4	C-4	2/13/1998	5 U	5 U	5 U	5 U	5 U
C-4	C-4	5/8/1998	5 UJ	5 UJ	5 U	5 U	5 U
C-4	C-4	11/10/2000	5 U	5 U	5 U	5 U	5 U
C-4	C-4	8/2/2002	5 U	5 U	5 U	5 U	5 U
C-4	C-4	5/11/2003	5 U	5 U	5 U	5 U	5 U
C-4	C-4-0503	5/11/2003	5 U	5 U	5 U	5 U	5 U
C-4	C-4	8/1/2003	5 U	5 U	5 U	5 U	5 U
C-4	C-4	11/12/2003	5 U	5 U	5 U	5 U	5 U
C-5	C-5	2/24/1997	5 U	5 U	5 U	5 U	5 U
C-5	C-5	11/17/1997	5 U	5 U	5 U	5 U	5 U
C-5	C-5	2/13/1998	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
C-5	C-5	5/8/1998	7.6	5 U	5 U	5 U	5 U
C-5	C-5	11/10/2000	5 UJ	5 U	5 U	5 U	5 U
C-5	C-5	2/1/2003	5 U	5 U	5 U	5 U	5 U
C-5	C-5-0503	5/11/2003	2.6	5 U	5 U	5 U	5 U
C-5	C-5	5/11/2003	2.7	5 U	1.3 J	1.4 J	5 U
C-5	C-5	8/1/2003	5 U	5 U	5 U	5 U	5 U
C-5	C-5	11/12/2003	8.6 J	5 UJ	5 UJ	5 UJ	5 UJ
C-5	C-5-0505	5/16/2005	18.6	5 U	5 U	5 U	3.6 J
C-6	C-6	9/26/1996	12	5 U	5 U	5 U	5 U
C-6	C-6	2/24/1997	7.8	5 U	5 U	5 U	5 U
C-6	C-6	5/29/1997	5 U	5 U	5 U	5 U	5 U
C-6	C-6	8/15/1997	10 J	2 U	2 U	2 U	2 UJ
C-6	C-6	3/1/1998	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
C-6	C-6	4/1/1998	44	5 U	5 U	5 U	28

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

C-6	C-6	5/8/1998	1260	60	160	720	320
C-6	C-6	6/1/1998	5 U	5 U	5 U	5 U	5 U
C-6	C-6	7/1/1998	5 U	5 U	5 U	5 U	5 U
C-6	C-6	8/12/1998	5 U	5 U	5 U	5 U	5 U
C-6	C-6	8/13/1998	5 U	5 U	5 U	5 U	5 U
C-6	C-6	9/1/1998	5 UJ	5 UJ	5 U	5 U	5 U
C-6	C-6	10/1/1998	5 U	5 U	5 U	5 U	5 U
C-6	C-6	11/14/1998	5 U	5 U	5 U	5 U	5 U
C-6	C-6	1/1/1999	5 U	5 U	5 U	5 U	5 U
C-6	C-6	2/1/1999	67.3	5 U	5 U	16	46
C-6	C-6	5/1/1999	17.8	5 U	5 U	6.8	11
C-6	C-6	8/1/1999	5	5 U	5 U	5	5 U
C-6	C-6-TR-022501	2/25/2001	11	5 U	1.5 J	1.8 J	5.1
C-6	C-6	8/2/2002	5 U	5 U	5 U	5 U	5 U
C-6	C-6	2/1/2003	5 U	5 U	5 U	5 U	5 U
C-6	C-6-0503	5/11/2003	56.7	5 U	5 U	6.7	46
C-6	FD5-0503	5/11/2003 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
C-6	C-6	5/11/2003	6.3 J	5 UJ	5 UJ	5 UJ	6.3 J
C-6	C-6	8/1/2003	2350	330	1700	140	59
C-6	C-6	11/12/2003	60.7	5 U	5 U	7.5	49
C-6	C-6-0505	5/16/2005	146.3	5 U	5 U	6.3	140
C-6	FD3-0505	5/16/2005 (Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
C-7	C-7	2/22/1996	5 U	5 U	5 U	5 U	5 U
C-7	C-7	5/21/1996	5 U	5 U	5 U	5 U	5 U
C-7	C-7	6/19/1996	14	5 U	5 U	5 U	5 U
C-7	C-7	7/19/1996	8.9	5 U	5 U	5 U	5 U
C-7	C-7	8/20/1996	6.8	5 U	5 U	5 U	5 U
C-7	C-7	9/25/1996	5 U	5 U	5 U	5 U	5 U
C-7	C-7	11/15/1996	3.3	2 U	1.0 J	2 U	2 U
C-7	C-7	2/7/1997	1.03	0.15 J	0.38 J	0.35 J	0.14 U
C-7	C-7	5/9/1997 (Duplicate)	19820	17000	1800	540	480
C-7	C-7	8/13/1997	17590	14000	2000	980	610
C-7	C-7	11/25/1997	49063	8900	12000	20000	8000
C-7	C-7	5/7/1998	31560	280	13000	16000	2000
C-7	C-7	8/13/1998	40530	210 J	15000	20000	4300
C-7	C-7	2/14/1999	50089	220 J	6600	33000	10000
C-7	C-7	2/16/2000	151	16	68	67	5 U
C-7	C-7-TR-081100	8/11/2000	5140.6	5 U	0.6 J	150	4700
C-7	C-7-TR-022601	2/26/2001	3109.7	5 U	5 U	270	2600
C-7	C-7	8/14/2001	5	5 U	0.9 J	4.1 J	5 U
C-7	C-7-DC-080802	8/8/2002	2.6	2.0 U	2.0 U	2.0 U	2.0 U
C-7	C-7-0203	2/9/2003	24.9	8.1	4.1 J	5 U	5 U
C-7	C-7	5/11/2003	5.31	1.4	1.9	1.4	0.51 J
C-7	C-7-0803	8/14/2003	79.2	26	47 J	6.2	5 U
C-7	C-7-0204	2/4/2004	5 U	5 U	5 U	5 U	5 U
C-7	C-7-0804	8/11/2004	5 U	5 U	5 U	5 U	5 U
C-7	C-7-0205	2/14/2005	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
C-7	C-7-0505	5/16/2005	5 U	5 U	5 U	5 U	5 U
C-70	C-70	5/14/1993	5 U	5 U	5 U	5 U	5 U
C-70	C-70	5/18/1993	228	21	76	60	71
C-70	C-70	5/28/1993	97.4	5 U	5 U	3.4 J	94
C-70	C-70	6/2/1993	294.68	0.38 J	2.0 J	2.3 J	290
C-70	C-70	9/22/1993	32.6	5.0 U	5.0 U	1.6 J	13
C-8	C-8	9/26/1996	3571	100 U	100 U	71 J	3300
C-8	C-8	2/24/1997	316.4	2.0 U	2.0 U	2.4	290
C-8	C-8	8/13/1997	11.85	0.56	5.9	2.3	1.1
C-8	C-8	5/8/1998	98.92	1.9	34	30	23
C-8	C-8	8/8/2002	124.19	1.1	31	44	35
C-8	C-8	5/11/2003	3640	25 U	220	620	2300
C-8	C-8-0503	5/11/2003	93800	150 J	14000	20000	460 J
C-8	C-8	8/1/2003	3400	25 U	230	590	2100
C-9	C-9	5/29/1997	42650	2100	31000	6500	440
C-9	C-9	5/8/1998	1632.4	130	5 U	1300 J	130
C-9	C-9	11/10/2000	1650.1	5 U	0.5 J	1200	370
C-9	C-9	8/8/2002	3.5	5 U	5 U	3.5 J	5 U
C-9	C-9	11/5/2002	5 U	5 U	5 U	5 U	5 U
C-9	C-9	2/1/2003	3.3	5 U	5 U	5 U	3.3 J
C-9	C-9	5/11/2003	15	5 U	5 U	15	5 U
C-9	C-9-0503	5/11/2003	22.6	5 U	5 U	16	5 U
C-9	C-9	11/12/2003	22.8	5 U	1.6 J	20	5 U
C-9	GW-052406-LH-C9	5/24/2006	6	5 U	5 U	6	5 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

CH-1	GW-060106-LH-CH1-001	6/1/2006	5.6	2 U	2 U	2.3	3.3
CH-3	GW-053006-LH-CH3-002	5/30/2006	8 J	5 U	5 U	5 U	4.5 J
CH-3	GW-072706-DR-CH3-004	7/27/2006	900.285	60.6	515	112	210
CH-3	GW-072706-DR-CH3-005	7/27/2006	2104.44	693	1250	49.7	84.8
CH-3	GW-072706-DR-CH3-006	7/27/2006 (Duplicate)	13639.5	2580	11000	28.7 J	2.5 U
CH-3	GW-072706-DR-CH3-003	7/27/2006	118300.3	2880	48900	24300	41600
CH-3	GW-072806-DR-CH3-007	7/28/2006	8.28	0.15 U	0.75 J	2.2	5.1
CH-4	GW-072606-DR-CH4-007	7/26/2006	20.162	1.01	6.09	1.89	4.4
D-2	D-2	2/24/1997	1.1	2.0 U	2.0 U	1.1 J	2.0 U
D-2	D-2	5/28/1997	5 U	5 U	5 U	5 U	5 U
D-2	D-2	8/14/1997	23.9	5 U	2.4 J	19	5 U
D-2	D-2	2/11/1998	6.6	5 U	5 U	5 U	5 U
D-2	D-2	11/6/1999	9648.8	5 U	2.8 J	4100	5200
D-2	D-2	11/10/2000	14003.1	5 U	4.1 J	4900	8700
D-2	D-2	8/2/2002	15130	250 U	250 U	5300	9600
D-2	D-2	5/11/2003	6.4	2.0 U	2.0 U	6.4	2.0 U
D-2	D-2-0503	5/11/2003	484.3	3.1 J	30	420	18
D-2	D-2	8/1/2003	1.7	0.50 U	0.50 U	1.2	0.12 J
D-2	D-2	11/13/2003	233.3	4.1 J	34	160	29
D-2	D-2-0505	5/16/2005	394.5	2.5 J	27	340	11
D-3	D-3	5/28/1997	5.83	0.50 U	0.11 J	0.32 J	0.41 J
D-3	D-3	2/11/1998	148	18	53	53	24
D-3	D-3	3/1/1998	522	160	170	170	22
D-3	D-3	4/1/1998	569	160	190	190	29
D-3	D-3	10/1/1998	10.26	0.18 J	0.96	1.9	3.4
D-3	D-3	11/1/1998	197.4	0.15 U	73	120	4.4 J
D-3	D-3	11/6/1999	145.9	5.0 U	30	110	1.4 J
D-3	FD-2-TR	11/10/2000 (Duplicate)	13.9	1.50 U	1.60 U	2.9 J	11 J
D-3	D-3	2/1/2003	0.16	0.50 U	0.50 U	0.50 U	0.50 U
D-3	D-3	5/11/2003	0.15	0.066 U	0.15 J	0.062 U	0.14 U
D-3	D-3-0505	5/16/2005	0.57	0.50 U	0.50 U	0.50 U	0.50 U
D-4	D-4	6/19/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	7/19/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	8/13/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	9/25/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	11/14/1996	0.59	0.066 U	0.055 U	0.59 J	0.14 U
D-4	D-4	2/4/1997 (Duplicate)	3.82	0.28 J	0.63	2.5	0.25 J
D-4	D-4	5/9/1997	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	8/14/1997	1.23	0.23 J	0.49 J	0.51 J	0.14 U
D-4	D-4	8/14/1997 (Duplicate)	2.38	0.16 J	0.11 J	0.85	0.50 U
D-4	D-4	11/25/1997	2.11	0.13 J	0.50 U	0.8	0.50 U
D-4	D-4	11/25/1997 (Duplicate)	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	2/2/1998	1.027	0.097 J	0.34 J	0.59 J	0.14 U
D-4	D-4	3/1/1998	87.4	0.15 U	4.7 J	80	2.7 J
D-4	D-4	4/1/1998	95.7	5 U	10	83	2.7 J
D-4	D-4	5/7/1998	103.3	5 U	11	84	5 U
D-4	D-4	6/1/1998	95	20 U	20 U	71	20 U
D-4	D-4	7/1/1998	78.87	0.066 U	7	70	1.3
D-4	D-4	8/13/1998	5.2	0.15 U	0.16 U	5.2	0.23 U
D-4	D-4	8/13/1998 (Duplicate)	24.8	5 U	5 U	4.8 J	5 U
D-4	D-4	9/1/1998	10.1	2 U	2 U	8.9	2 U
D-4	D-4	10/1/1998	6.96	0.066 U	0.055 U	5.8	1
D-4	D-4	2/1/1999	6.32	0.50 U	0.10 J	4.5	0.50 U
D-4	D-4	2/14/1999	21.8	0.15 U	0.16 U	16	5.8
D-4	D-4	5/1/1999	49	0.33 U	0.28 U	38	11
D-4	D-4	8/23/1999 (Duplicate)	0.8	0.066 U	0.17 J	0.48 J	0.14 U
D-4	D-4	8/23/1999	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4	2/1/2000	0.52	0.50 U	0.50 U	0.37 J	0.50 U
D-4	D-4	2/16/2000	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4-TR-081100	8/11/2000	0.08	0.50 U	0.50 U	0.50 U	0.50 U
D-4	FD9-TR-081100	8/11/2000 (Duplicate)	92453	6 U	8 U	106 J	91800
D-4	D-4	8/14/2001	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	FD6	8/14/2001 (Duplicate)	1.017 J	0.148 J	0.561 J	0.197 J	0.111 J
D-4	D-4-TR-013102	1/31/2002	0.42	0.066 U	0.055 U	0.42 J	0.14 U
D-4	D-4-DC-080802	8/8/2002	3.2	2 U	2 U	1.3 J	2 U
D-4	D-4	11/5/2002	0.091	0.066 U	0.091 J	0.062 U	0.14 U
D-4	D-4	2/1/2003	0.1	0.066 U	0.10 J	0.062 U	0.14 U
D-4	D-4	8/1/2003	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-4	D-4-0803	8/14/2003	29	5 U	5 U	5 U	5 U
D-4	D-4	11/13/2003	0.086	0.066 U	0.055 U	0.086 J	0.14 U
D-4	D-4-0804	8/11/2004	10	5 U	5 U	5 U	5 U

TABLE 4.3

**SUMMARY OF VOCs  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

D-4	FD1-0804	8/11/2004	(Duplicate)	12980	7.50 U	8.00 U	12000	690
D-4	D-4-0205	2/14/2005		0.35	0.50 U	0.50 U	0.12 J	0.50 U
D-4	FD-4-0505	5/16/2005	(Duplicate)	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
D-4	D-4-0505	5/16/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-5	D-5-TR-020102	2/1/2002		4.3	2 U	1.3 J	2 U	2 U
D-5	FD13-TR-020102	2/1/2002	(Duplicate)	384.19	0.15 U	0.79 J	1.4 J	370
D-5	D-5-TR-080202	8/2/2002		3.8	2 U	1.4 J	2 U	2 U
D-5	D-5-JP-110902	11/9/2002		43.2	5 U	5 U	6.7	16
D-5	D-5	2/1/2003		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
D-5	D-5-0203	2/9/2003		1.899	0.22 J	0.67 J	0.57 J	0.34 J
D-5	D-5	5/11/2003		0.74	0.066 U	0.25 J	0.37 J	0.14 U
D-5	D-5-0503	5/11/2003		1.83	0.15 J	0.66 J	0.63 J	2.0 U
D-5	D-5	8/1/2003		1900	0.15 U	0.16 U	0.16 U	1900
D-5	D-5	11/12/2003		1.92	0.25 J	0.66 J	0.57 J	0.44 J
D-5	D-5-0505	5/14/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-11	GW-101905-DOCK2-11-002	10/19/2005		0.488 J	0.173 J	0.166 J	0.149 J	0.0604 UJ
Dock2-11	GW-101905-DOCK2-11-001	10/19/2005		0.691 J	0.227 J	0.224 J	0.24 J	0.0604 UJ
Dock2-11	GW-102005-DOCK2-11-010	10/20/2005		1.19	0.015 U	0.538	0.652	0.025 U
Dock2-11	GW-102005-DOCK2-11-013	10/20/2005		1.6	0.015 U	0.02 U	1.18	0.42
Dock2-11	GW-102005-DOCK2-11-009	10/20/2005		2.022	0.473 J	0.666	0.694	0.129
Dock2-11	GW-102005-DOCK2-11-011	10/20/2005		2.147	0.015 U	0.02 U	1.91	0.237
Dock2-11	GW-102005-DOCK2-11-012	10/20/2005		2.166	0.015 U	0.02 U	1.86	0.306
Dock2-11	GW-102005-DOCK2-11-014	10/20/2005		2.774	0.485 J	0.875	1.05	0.272
Dock2-11	GW-102005-DOCK2-11-003	10/20/2005		6.522	1.62	0.565	2.66	0.243
Dock2-11	GW-102005-DOCK2-11-007	10/20/2005		11.637	0.907	2.45	2.64	3.73
Dock2-11	GW-102005-DOCK2-11-018	10/20/2005		26.644	4.25	9.74	7.89	2.31
Dock2-11	GW-102005-DOCK2-11-017	10/20/2005		70.865	10.5	36.8	16.7	2.82
Dock2-11	GW-102005-DOCK2-11-016	10/20/2005		73.835	11.5	33.3	18.8	4.53
Dock2-11	GW-102005-DOCK2-11-015	10/20/2005		75.321	17.3	23.1	22	7.29
Dock2-11	GW-102005-DOCK2-11-008	10/20/2005		76.891	12.1	36.3	18.1	4.73
Dock2-11	GW-102005-DOCK2-11-004	10/20/2005		87.1085	13.8	30.1	34.1	5.52
Dock2-11	GW-102005-DOCK2-11-006	10/20/2005		88.239	12.2	45.5	22.3	3.74
Dock2-11	GW-102005-DOCK2-11-005	10/20/2005	(Duplicate)	92.3625	18.7	39.5	26.2	4.17
Dock2-11	GW-102105-DOCK2-11-019	10/21/2005		0.184	0.09 J	0.02 U	0.015 U	0.025 U
Dock2-11	GW-102105-DOCK2-11-022	10/21/2005		1.05	0.14 J	0.15 J	0.37 J	0.25 J
Dock2-11	GW-102105-DOCK2-11-021	10/21/2005		1.89	0.26 J	0.38 J	0.68 J	0.26 J
Dock2-11	GW-102105-Dock2-11-020	10/21/2005		2.11	0.015 U	0.02 U	1.96	0.025 U
Dock2-12	GW-110805-DOCK2-12-001	11/8/2005		0.0583	0.0578 U	0.0641 U	0.0583 J	0.0604 U
Dock2-12	GW-110805-DOCK2-12-010	11/8/2005		0.0727	0.0578 U	0.0641 U	0.0727 J	0.0604 U
Dock2-12	GW-110805-DOCK2-12-008	11/8/2005		0.0804	0.0578 U	0.0641 U	0.0804 J	0.0604 U
Dock2-12	GW-110805-DOCK2-12-004	11/8/2005		0.2974	0.0578 U	0.0641 U	0.0904 J	0.207 J
Dock2-12	GW-110805-DOCK2-12-007	11/8/2005		0.6876	0.0578 U	0.106 J	0.508 J	0.0604 U
Dock2-12	GW-110805-Dock2-12-011	11/8/2005		1.14	0.0578 U	0.0641 U	0.0433 U	1.14
Dock2-12	GW-110805-Dock2-12-013	11/8/2005	(Duplicate)	55.4919	0.0601 J	0.289 J	8.74	45.3
Dock2-12	GW-110805-DOCK2-12-012	11/8/2005		1119.413	0.0578 U	0.0641 U	78.8	1030
Dock2-12	GW-110805-DOCK2-12-002	11/8/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-12	GW-110805-DOCK2-12-009	11/8/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-12	GW-110805-DOCK2-12-006	11/8/2005		0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
Dock2-12	GW-110805-Dock2-12-005	11/8/2005		0.774 J	0.116 UJ	0.128 UJ	0.462 J	0.312 J
Dock2-12	GW-110805-DOCK2-12-003	11/8/2005		9.62 J	0.0578 UJ	0.0641 UJ	0.0433 UJ	9.62 J
Dock2-12	GW-110905-DOCK2-12-016	11/9/2005		225.557	0.289 U	1.34 J	158	43.3
Dock2-12	GW-110905-DOCK2-12-015	11/9/2005		11933.3	5.78 U	42.6 J	8240	2120
Dock2-12	GW-110905-DOCK2-12-014	11/9/2005		77211	57.8 U	403 J	53000	14800
Dock2-13	GW-111105-Dock2-13-005	11/11/2005		0.0469	0.0578 U	0.0641 U	0.0469 J	0.0604 U
Dock2-13	GW-111105-Dock2-13-006	11/11/2005		0.069	0.0578 U	0.0641 U	0.069 J	0.0604 U
Dock2-13	GW-111105-Dock2-13-001	11/11/2005		0.1374	0.0578 U	0.0717 J	0.0657 J	0.0604 U
Dock2-13	GW-111105-Dock2-13-002	11/11/2005		0.1386	0.0578 U	0.0667 J	0.0719 J	0.0604 U
Dock2-13	GW-111105-Dock2-13-010	11/11/2005		2.15	0.144 U	1.05	1.1	0.162 U
Dock2-13	GW-111105-Dock2-13-003	11/11/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-13	GW-111105-Dock2-13-004	11/11/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-13	GW-111105-Dock2-13-007	11/11/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-13	GW-111105-Dock2-13-008	11/11/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-13	GW-111105-Dock2-13-009	11/11/2005		0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-13	GW-111205-Dock2-13-011	11/12/2005		12.141	0.144 U	0.381 J	3.16	8.6
Dock2-14	GW-102805-DOCK2-14-003	10/28/2005		0.24	0.24 J	0.16 U	0.16 U	0.23 U
Dock2-14	GW-102805-DOCK2-14-001	10/28/2005		4.67	0.96 J	0.18 J	0.33 J	3.2
Dock2-14	GW-102805-DOCK2-14-002	10/28/2005		6.78	0.21 J	0.16 U	0.97 J	5.6
Dock2-14	GW-102905-DOCK2-14-004	10/29/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-14	GW-102905-DOCK2-14-005	10/29/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-14	GW-102905-DOCK2-14-006	10/29/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-14	GW-102905-DOCK2-14-007	10/29/2005		0.35 U	0.15 U	0.16 U	0.16 U	0.23 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

Dock2-14	GW-103105-DOCK2-14-008	10/31/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-2	GW-071105-DOCK2-2-001	7/11/2005	2.34	0.288 U	0.252 U	2.34	0.324 U
Dock2-2	GW-071205-DOCK2-2-002	7/12/2005	0.286	0.144 U	0.126 U	0.286 J	0.162 U
Dock2-2	GW-071205-DOCK2-2-004	7/12/2005	5.935	0.0578 U	0.778 J	4.89	0.165 J
Dock2-2	GW-071205-DOCK2-2-003	7/12/2005	30.241	0.144 U	2.09	27.3	0.454 J
Dock2-2	GW-071205-Dock2-2-005	7/12/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
Dock2-2	GW-071305-DOCK2-2-006	7/13/2005	6.368	0.0578 U	0.228 J	6.14	0.0604 U
Dock2-4	GW-072805-DOCK2-4-003	7/28/2005	0.104	0.104 J	0.0641 U	0.0433 U	0.0604 U
Dock2-4	GW-072805-DOCK2-4-004	7/28/2005	5.446	4.53	0.632 J	0.284 J	0.0604 U
Dock2-4	GW-072805-DOCK2-4-001	7/28/2005	19.634	16.9	1.07	0.992 J	0.672 J
Dock2-4	GW-072805-DOCK2-4-002	7/28/2005	35.77	30.3	1.46	2.64	1.37
Dock2-4	GW-072905-DOCK2-4-007	7/29/2005	13	0.15 U	0.16 U	13	0.23 U
Dock2-4	GW-072905-DOCK2-4-005	7/29/2005	16.9	2.7	0.16 U	4.2	0.23 U
Dock2-4	GW-072905-DOCK2-4-006	7/29/2005	(Duplicate) 22.67	2.6	0.47 J	5.6	0.23 U
Dock2-4	GW-072905-DOCK2-4-008	7/29/2005	26.2	0.15 U	0.16 U	5.2	21
Dock2-5	GW-080105-DOCK2-5-001	8/1/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-5	GW-080105-DOCK2-5-002	8/1/2005	(Duplicate) 0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-5	GW-080105-DOCK2-5-003	8/1/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Dock2-5	GW-080105-DOCK2-5-004	8/1/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
E-1	E-1	2/24/1997	13.01	0.50 U	2.7	3.6	0.55
E-1	E-1	2/10/1998	95764	240 J	44000	29000	2700
E-10	F-1	5/7/1997	306.86	3.76 J	268 J	35.1	1.62 U
E-10	E-10	2/9/1998	0.33	0.33 J	0.32 U	0.32 U	0.46 U
E-10	E-10	5/5/1998	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
E-2	E-2	5/27/1997	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
E-2	E-2	11/17/1997	0.70 U	0.30 U	0.32 U	0.32 U	0.46 U
E-3	E-3	2/24/1997	0.29	0.18 J	0.11 J	0.50 U	0.50 U
E-3	E-3	11/17/1997	0.70 U	0.30 U	0.32 U	0.32 U	0.46 U
E-3A	E-3A	5/27/1997	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
E-3A	E-3A	2/10/1998	6.75	0.30 U	6.3	0.45 J	0.46 U
E-4	E-4	8/25/1997	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
E-4	E-4	2/10/1998	0.36	0.066 U	0.055 U	0.062 U	0.14 U
E-5	E-5	9/23/1996	9.2	2.0 U	2.0 U	2.0 U	2.0 U
E-5	E-5	2/24/1997	0.245	0.075 J	0.055 U	0.062 U	0.14 U
E-5	E-5	8/25/1997	10.6	2.0 U	2.0 U	7.9	2.7
E-5	E-5	11/26/1997	346.95	0.33 U	51	130	150
E-5	E-5	5/15/1998	7.01	0.64	2.3	3.4	0.21 J
E-6	E-6	9/23/1996	599.2	15	190	240	120
E-6	E-6	2/24/1997	348.55	13	78	150	91
E-6	E-6	5/27/1997	887.2	19	130	570	26
E-6	E-6	8/25/1997	33240	70 J	700	18000	14000
E-6	E-6	2/10/1998	247000	6100	170000 J	43000	2500 J
E-6	E-6	5/15/1998	192400	5200	130000 J	36000	2100
E-7	E-7	2/24/1997	195090	330 U	13000 J	140000	20000
E-7	E-7	11/18/1997	7.15	0.11 J	0.10 J	2	4
E-8	E-8	9/19/1996	4.58	0.50 U	0.50 U	1.5	2.4
E-8	E-8	2/24/1997	3.28	0.50 U	0.50 U	0.65	1.4
E-8	E-8	5/27/1997	318.9	5.0 U	5.0 U	4.8 J	310
E-8	E-8	8/25/1997	15165	250 U	250 U	940	14000
E-8	E-8	11/18/1997	70.54	0.50 U	0.50 U	2.3	67
E-8	E-8	5/15/1998	17	0.50 U	0.50 U	0.31 J	16
E-9	E-9	5/15/1998	0.83	0.50 U	0.18 J	0.38 J	0.50 U
EA-1	GW-092205-EA-1-003	9/22/2005	9480	8200	1100	180	50 U
EA-1	GW-092205-EA-1-004	9/22/2005	12100	11000	1100	60 U	60 U
EA-1	GW-092205-EA-1-002	9/22/2005	49100	47000	1600	500	500 U
EA-1	GW-092205-EA-1-001	9/22/2005	1.0 U	-	-	-	-
EA-1	GW-092305-EA-1-005	9/23/2005	1.0 U	-	-	-	-
EA-1	GW-092305-EA-1-006	9/23/2005	1.0 U	-	-	-	-
EA-1	GW-092605-EA-1-010	9/26/2005	8843.3	31.1 J	1280	7010	378
EA-1	GW-092605-EA-1-009	9/26/2005	103970	2670	66500	29200	3180
EA-1	GW-092705-EA-1-014	9/27/2005	79313	57.8 U	16700	59000	992 J
EA-1	GW-092705-EA-1-013	9/27/2005	135546	1490 J	75000	42300	8030
EA-1	GW-092705-EA-1-011	9/27/2005	161905	116 U	630 J	125000	31100
EA-1	GW-092705-EA-1-012	9/27/2005	168941	116 U	72100	83500	3680
EA-1	GW-092805-EA-1-016	9/28/2005	0.075 U	0.075 U	0.02 U	0.015 U	0.025 U
EA-1	GW-092805-EA-1-017	9/28/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
EA-1	GW-092805-EA-1-018	9/28/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
EA-1	GW-092805-EA-1-015	9/28/2005	961.77 J	0.15 U	0.2 U	330 J	630 J
EA-1	GW-100305-EA-1-019	10/3/2005	0.144	0.015 U	0.02 U	0.144 J	0.025 U
EA-1	GW-100305-EA-1-020	10/3/2005	98.56	0.578 U	1.78 J	95.4	1.38 J
EA-1	GW-100405-EA-1-021	10/4/2005	1.241	0.015 U	0.152 J	0.893	0.196

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

EA-1	GW-100405-EA-1-022	10/4/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
EA-1	GW-100405-EA-1-023	10/4/2005	(Duplicate) 0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
EA-1	GW-100505-EA-1-025	10/5/2005	0.281	0.015 U	0.154 J	0.127 J	0.025 U
EA-1	GW-100505-EA-1-024	10/5/2005	0.548	0.015 U	0.284 J	0.264 J	0.025 U
EA-1	GW-100605-EA-1-026	10/6/2005	0.39	0.144 U	0.15 J	0.24 J	0.162 U
EA-1	GW-100605-EA-1-027	10/6/2005	0.522	0.144 U	0.24 J	0.282 J	0.162 U
EA-1	GW-100705-EA-1-028	10/7/2005	0.917	0.151 J	0.314 J	0.452 J	0.162 U
EA-2	GW-101005-EA-2-001	10/10/2005	0.85	0.50 U	0.50 U	0.85	0.50 U
EA-2	GW-101005-EA-2-002	10/10/2005	3.07	0.50 U	0.50 U	2.6	0.12 J
EA-2	GW-101005-EA-2-003	10/10/2005	72378	100 U	3500	55000	6900
EA-2	GW-101105-EA-2-004	10/11/2005	84.88	20	54	9.5	0.37 J
EA-2	GW-101105-EA-2-006	10/11/2005	54280	6200	39000	8600	80 J
EA-2	GW-101105-EA-2-008	10/11/2005	302670	14000	190000	54000	12000
EA-2	GW-101205-EA-2-011	10/12/2005	38.13	1.6	8.7	7.1 J	16 J
EA-2	GW-101205-EA-2-009	10/12/2005	78.61	0.6	8.8	0.78	68
EA-2	GW-101205-EA-2-012	10/12/2005	1230.7	180	1000	15	12
EA-2	GW-101205-EA-2-010	10/12/2005	1283.2	110	840	14	300
EA-2	GW-101305-EA-2-013	10/13/2005	1.42	0.48 J	0.74	0.11 J	0.50 U
EA-2	GW-101305-EA-2-015	10/13/2005	7.45	1.1	0.79	0.16 J	0.50 U
EA-2	GW-101305-EA-2-014	10/13/2005	8.5	2.5	2.9	0.5	0.50 U
EA-2	GW-101405-EA-2-017	10/14/2005	86.12	0.62	5.8	53	15
EA-2	GW-101405-EA-2-016	10/14/2005	467.48	2.4	14	290	22
EA-2	GW-101705-EA-2-020	10/17/2005	0.11	0.50 U	0.50 U	0.50 U	0.11 J
EA-2	GW-101705-EA-2-018	10/17/2005	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
EA-2	GW-101705-EA-2-019	10/17/2005	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
EA-2	GW-101805-EA-2-023	10/18/2005	68.4625	30.1	7.02 J	15.2	7.73
EA-2	GW-101805-EA-2-021	10/18/2005	7324	700	3400	1900	1100
EA-2	GW-101905-EA-2-025	10/19/2005	0.0696 J	0.0578 UJ	0.0641 UJ	0.0696 J	0.0604 UJ
EA-2	GW-101905-EA-2-024	10/19/2005	0.116 J	0.0578 UJ	0.0641 UJ	0.116 J	0.0604 UJ
EA-2	GW-102005-EA-2-027	10/20/2005	0.06	0.06 J	0.02 U	0.015 U	0.025 U
EA-2	GW-102005-EA-2-028	10/20/2005	0.1425	0.0915 J	0.02 U	0.015 U	0.025 U
EA-2	GW-102005-EA-2-026	10/20/2005	2.429	0.365 J	0.535	1.18	0.025 U
EA-2	GW-102105-EA-2-029	10/21/2005	1.03	0.14 J	0.17 J	0.33 J	0.26 J
EA-3	GW-102405-EA-3-001	10/24/2005	0.952	0.16 J	0.11 J	0.12 J	0.32 J
EA-3	GW-102505-EA-3-006	10/25/2005	48.7	1	1.4 J	22	21
EA-3	GW-102505-EA-3-002	10/25/2005	95.5	9.3	15	64	3.9
EA-3	GW-102505-EA-3-003	10/25/2005	115.4	12	18	76	5.1
EA-3	GW-102505-EA-3-004	10/25/2005	249.1	28	36	120	52
EA-3	GW-102505-EA-3-005	10/25/2005	296.6	32	35	170	46
EA-3	GW-102605-EA-3-009	10/26/2005	19.51	0.29 J	1. J	13	4.5
EA-3	GW-102605-EA-3-008	10/26/2005	23.88	0.15 U	0.64 J	12	8.4
EA-3	GW-102605-EA-3-007	10/26/2005	27.03	0.21 J	2.4	16	5.2
EA-3	GW-102605-EA-3-010	10/26/2005	85.65	9.5	32	37	3.6
EA-3	GW-102705-EA-3-011	10/27/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-102705-EA-3-012	10/27/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-102705-EA-3-013	10/27/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-102705-EA-3-014	10/27/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-102705-EA-3-015	10/27/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-102805-EA-3-016	10/28/2005	1.68	0.78 J	0.29 J	0.32 J	0.23 U
EA-3	GW-102805-EA-3-017	10/28/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-102805-EA-3-018	10/28/2005	(Duplicate) 0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
EA-3	GW-110105-DC-EA-3-022	11/1/2005	1.9 J	-	-	1.0 U	1.0 U
EA-3	GW-110105-DC-EA-3-021	11/1/2005	4.4 J	-	-	1.0 U	1.0 U
EA-3	GW-110205-EA-3-024	11/2/2005	9.5	-	-	1.0 U	1.0 U
EA-3	GW-110205-EA-3-023	11/2/2005	3.9 J	-	-	1.0 U	1.0 U
EA-3	GW-110305-EA-3-025	11/3/2005	1.1	-	-	1.0 U	1.0 U
EA-3	GW-110305-EA-3-026	11/3/2005	2.3 J	-	-	1.0 U	1.0 U
EA-3	GW-110305-EA-3-027	11/3/2005	8.0 U	-	-	1.0 U	1.0 U
EA-3	GW-110405-EA-3-028	11/4/2005	2345.8	-	-	138	2200
EA-3	GW-110405-EA-3-029	11/4/2005	5.6 J	-	-	1.0 U	2.9
EA-3	GW-110705-EA-3-030	11/7/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
ESI-1-10	GW-38019-CC-ESI-1-10-48	2/2/2004	1.416	0.015 U	0.02 U	0.864	0.552
ESI-1-10	GW-38019-CC-ESI-1-10-25	2/2/2004	3.643	0.015 U	0.02 U	2.11	1.45
ESI-1-10	GW-38019-CC-ESI-1-10-15	2/2/2004	4.265	0.015 U	0.02 U	2.5	1.62
ESI-1-3	ESI-1-3	11/12/2002	3.67 J	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
ESI-1-5	ESI-1-5	12/4/2002	0.95	2.5 U	2.5 U	2.5 U	2.5 U
ESI-1-6	GW-020404-CC-ESI-1-6-25	2/4/2004	35.8	5 U	2.9 J	7.5	5 U
ESI-1-6	GW-020404-CC-ESI-1-6-50	2/4/2004	1999	5 U	5 U	-	5 U
ESI-1-6	GW-020404-CC-ESI-1-6-83	2/4/2004	-	110	99	-	5 U
ESI-1-6	GW-020404-CC-ESI-1-6-15	2/4/2004	-	5 U	5 U	-	5 U
ESI-1-7	GW-38020-CC-ESI-1-07-15	2/3/2004	0.1515	0.015 U	0.02 U	0.015 U	0.025 U

TABLE 4.3

**SUMMARY OF VOCs  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

ESI-1-7	GW-38020-CC-ESI-1-07-25	2/3/2004	3051	0.3 U	0.4 U	21	3030
ESI-1-7	GW-38020-CC-ESI-1-07-50	2/3/2004	17395.4	3 U	4 U	4240	12900
ESI-1-8	GW-020404-CC-ESI-1-8-15	2/3/2004	165.8	9.9	41	71	5 U
ESI-1-8	GW-020304-CC-ESI-1-8-15	2/3/2004	1623	5 U	5 U	5 U	5 U
ESI-1-8	GW-020304-CC-ESI-2-102	2/3/2004	1668	5 U	5 U	5 U	5 U
ESI-1-8	GW-020404-CC-ESI-1-8-25	2/4/2004	1879	110	99	-	5 U
ESI-1-8	GW-020404-CC-ESI-1-8-50	2/4/2004	-	30	3	-	1 U
ESI-1-9	GW-38019-CC-ESI-1-09-15	2/2/2004	319.06	0.015 U	0.02 U	191	122
ESI-1-9	GW-38020-CC-ESI-1-09-50	2/3/2004	57.256	0.015 U	0.02 U	18.2	38.4
ESI-1-9	GW-38020-CC-ESI-1-09-25	2/3/2004	100.7175	0.015 U	0.02 U	4.8	95.6
ESI-2-14	GGW-07842-JP-120202-012	12/2/2002	0.293	0.015 U	0.02 U	0.118 J	0.175
ESI-2-14	GGW-07842-JP-120202-013	12/2/2002	492.4025	0.015 U	2.33	1.24	481
ESI-2-17	GGW-07842-JP-111902-011	11/19/2002	4.1565	0.015 U	0.02 U	1.64	0.284
ESI-2-2	ESI-2-2	11/14/2002	456.6	110	58	280	4.0 J
ESI-2-2	ESI-2-2	11/14/2002	5357	2700 J	520	1800 J	310
ESI-2-2	ESI-2-2	11/14/2002	8234	770	620	2700	4000
ESI-2-2	ESI-2-2	11/14/2002	88170	5200	37000	23000	22000
ESI-2-20	ESI-2-20	11/26/2002	1.29	0.50 U	0.50 U	0.21 J	0.29 J
ESI-2-20	ESI-2-20	11/26/2002	2813.5	660	1300	700	100
ESI-2-20	ESI-2-20	11/27/2002	0.67	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-20	ESI-2-20	11/27/2002	9593	1300	6800	1100	150
ESI-2-21	ESI-2-21	11/22/2002	0.86	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-21	ESI-2-21	11/24/2002	0.87	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-22	ESI-2-22	11/26/2002	0.47	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-22	ESI-2-22	11/26/2002	0.66	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-23	ESI-2-23	11/24/2002	1.82	0.59	0.67	0.50 U	0.50 U
ESI-2-24	ESI-2-24	11/25/2002	0.1	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-24	ESI-2-24	11/25/2002	0.78	0.50 U	0.50 U	0.78	0.50 U
ESI-2-24	ESI-2-24	11/25/2002	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-24	ESI-2-24	11/25/2002	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-25	ESI-2-25	11/30/2002	0.11	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-25	ESI-2-25	11/30/2002	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-25	ESI-2-25(2)	12/3/2002	0.06	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-25	ESI-2-25(2)	12/3/2002	0.45	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-25	ESI-2-25(2)	12/3/2002	3.4	5.0 U	5.0 U	5.0 U	5.0 U
ESI-2-26	ESI-2-26	11/29/2002	0.31	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-26	ESI-2-26	11/29/2002	0.48	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-26	ESI-2-26	11/30/2002	0.58	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-26	ESI-2-26	11/30/2002	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-27	ESI-2-27	11/29/2002	0.59	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-27	ESI-2-27	11/29/2002	1.65	2.5 U	2.5 U	2.5 U	2.5 U
ESI-2-28	ESI-2-28	12/3/2002	0.4	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-28	ESI-2-28	12/3/2002	0.52	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-28	ESI-2-28	12/3/2002	0.59	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-28	ESI-2-28(2)	12/4/2002	0.4	0.50 U	0.50 U	0.15 J	0.50 U
ESI-2-29	GW-012904-CC-ESI-2-29-50	1/29/2004	164	130	-	-	-
ESI-2-30	ESI-2-30	1/28/2004	1.56	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-30	ESI-2-30	1/28/2004	1.69	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-31	GW-012704-CC-ESI-2-31-25	1/27/2004	5 U	-	-	-	-
ESI-2-32	ESI-2-32	1/27/2004	0.29	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-32	ESI-2-32	1/27/2004	1.84	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-33	ESI-2-33	1/29/2004	1.56	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-34	ESI-2-34	1/26/2004	2189.5	25 U	12 J	1200	660
ESI-2-35	ESI-2-35	1/30/2004	36.74	0.25 J	2	1.1	0.93
ESI-2-35	GW-38019-CC-ESI-2-35-25	2/2/2004	1.098	0.015 U	0.02 U	0.644	0.454
ESI-2-36	GW-012904-CC-ESI-2-36-15	1/29/2004	54	-	44	-	1 U
ESI-2-36	GW-012904-CC-ESI-2-36-25	1/29/2004	218	130	44	-	1 U
ESI-2-36	GW-020204-CC-ESI-2-36-49	2/2/2004	2520	540	88	-	5 U
ESI-2-37	ESI-2-37	1/28/2004	19.65	0.50 U	0.50 U	0.30 J	0.50 U
ESI-2-37	ESI-2-37	1/28/2004	76.87	8.4	1.9	54	10
ESI-2-38	ESI-2-38	1/21/2004	2.67	0.50 U	0.50 U	1.1	0.50 U
ESI-2-38	ESI-2-38	1/21/2004	3610	40 J	120	170	3200
ESI-2-39	ESI-2-39	1/22/2004	1302	170	160	250	700
ESI-2-39	ESI-2-39	1/22/2004	1319	170	180	280	670
ESI-2-4	ESI-2-4	11/14/2002	40067	25 U	7.0 J	17000	23000
ESI-2-4	ESI-2-4	11/15/2002	1183	5.0 J	17 J	770	380
ESI-2-4	ESI-2-4	11/15/2002	12660	380	2500	8100	1600
ESI-2-40	GW-012204-CC-ESI-2-100	1/22/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
ESI-2-40	GW-012204-CC-ESI-2-40-15	1/22/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
ESI-2-40	GW-012204-CC-ESI-2-40-25	1/22/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
ESI-2-40	GW-012204-CC-ESI-2-40-50	1/22/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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ESI-2-41	ESI-2-41	1/22/2004	6.72	0.21 J	0.67	0.69	2.4
ESI-2-41	ESI-2-41	1/22/2004	19.2	5.0 U	2.3 J	5.6	7.4
ESI-2-42	ESI-2-42	1/24/2004	1.18	0.50 U	0.50 U	0.50 U	0.40 J
ESI-2-43	GW-012704-CC-ESI-2-43-15	1/27/2004	54	30	9	-	1 U
ESI-2-43	GW-012704-CC-ESI-2-43-25	1/27/2004	55	30	9	-	1 U
ESI-2-44	ESI-2-44	1/23/2004	5	0.50 U	0.16 J	0.18 J	1.6
ESI-2-44	ESI-2-44	1/23/2004	2.9 J	0.50 UJ	0.50 UJ	0.50 UJ	1.1 J
ESI-2-45	GW-012404-CC-ESI-2-45-15	1/24/2004	0.31 UJ	0.066 UJ	0.055 UJ	0.062 UJ	0.14 UJ
ESI-2-45	GW-012404-CC-ESI-2-45-25	1/24/2004	0.31 UJ	0.066 UJ	0.055 UJ	0.062 UJ	0.14 UJ
ESI-2-45	GW-012404-CC-ESI-2-45-50	1/24/2004	0.31 UJ	0.066 UJ	0.055 UJ	0.062 UJ	0.14 UJ
ESI-2-46	GW-012404-CC-ESI-2-46-15	1/24/2004	828	400 D3	33	-	1 U
ESI-2-46	GW-012604-CC-ESI-2-46-25	1/26/2004	27	18	6	-	1 U
ESI-2-46	GW-012604-CC-ESI-2-101	1/26/2004	28	19	6	-	1 U
ESI-2-46	GW-012604-CC-ESI-2-46-50	1/26/2004	33	20	8	-	1 U
ESI-2-47	ESI-2-47	1/23/2004	37.64	0.50 U	0.50 U	3.4	30
ESI-2-47	ESI-2-47	1/23/2004	5.06 J	0.50 UJ	0.16 J	0.21 J	1.2 J
ESI-2-48	GW-012104-CC-ESI-2-48-15	1/21/2004	0.764	0.098 J	0.58 J	0.086 J	0.14 U
ESI-2-48	GW-012104-CC-ESI-2-48-25	1/21/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
ESI-2-48	GW-012104-CC-ESI-2-48-50	1/21/2004	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
ESI-2-49	GW-012304-CC-ESI-2-49-15	1/23/2004	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
ESI-2-49	GW-012304-CC-ESI-2-49-24	1/23/2004	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
ESI-2-5	ESI-2-5	11/15/2002	0.18	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-5	ESI-2-5	11/15/2002	1.95	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-5	ESI-2-5	11/15/2002	46.32	0.50 U	0.50 U	2.5	38
ESI-2-50	GW-012604-CC-ESI-2-50-50	1/26/2004	28	19	6	-	1 U
ESI-2-50	GW-012604-CC-ESI-2-50-15	1/26/2004	-	15	4	-	1 U
ESI-2-51	GW-020504-CC-ESI-2-51-50	2/5/2004	1.71	0.50 U	0.50 U	0.42 J	0.33 J
ESI-2-51	GW-020504-CC-ESI-2-51-25	2/5/2004	46.5	21	23	2.5 J	5 U
ESI-2-51	GW-020504-CC-ESI-2-51-15	2/5/2004	-	1 U	1 U	-	1 U
ESI-2-52	GW-38022-CC-ESI-2-52-15	2/5/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
ESI-2-52	GW-38022-CC-ESI-2-52-25	2/5/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
ESI-2-52	GW-38022-CC-ESI-2-52-50	2/5/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
ESI-2-53	GW-020604-CC-ESI-2-53-50	2/6/2004	63	3	3	-	1 U
ESI-2-53	GW-020604-CC-ESI-2-53-15	2/6/2004	-	3	3	-	1 U
ESI-2-53	GW-020604-CC-ESI-2-53-25	2/6/2004	-	4	4	-	1 U
ESI-2-54	GW-38023-CC-ESI-2-54-25	2/6/2004	2.2	0.15 U	0.16 U	2.2 J	0.23 U
ESI-2-6	ESI-2-6	11/16/2002	0.88	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-6	ESI-2-6	11/16/2002	1.19	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-6	ESI-2-6	11/16/2002	1.43	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-6	ESI-2-6	11/16/2002	2.41	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-7	ESI-2-7	11/22/2002	0.22	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-7	ESI-2-7	11/22/2002	6.13	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-8	ESI-2-8	11/21/2002	1.42	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-8	ESI-2-8	11/21/2002	1.61	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-8	ESI-2-8	11/21/2002	1.69	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-8	ESI-2-8	11/21/2002	6.34	0.50 U	0.50 U	0.50 U	0.50 U
ESI-2-9	ESI-2-9	11/24/2002	1.37	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-1	ESI-3-1	12/5/2002	10.29	0.43 J	1.2	7.7	0.11 J
ESI-3-1	ESI-3-1	12/5/2002	302.65	65	150	47	33
ESI-3-1	ESI-3-1	12/5/2002	5692	3500	980	1000	170
ESI-3-1	ESI-3-1	12/5/2002	6916.58	11	20	3300	3500
ESI-3-10	ESI-3-10	12/10/2002	18730	1300	10000	6800	180 J
ESI-3-10	ESI-3-10	12/10/2002	88160	13000	19000	35000	19000
ESI-3-10	ESI-3-10	12/10/2002	125670	5000	2500	68000	49000
ESI-3-11	ESI-3-11	12/11/2002	1116.8	220	750	120	12 J
ESI-3-11	ESI-3-11	12/11/2002	16302	84	1400	12000	2700
ESI-3-12	ESI-3-12	12/11/2002	22.12	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-12	ESI-3-12	12/11/2002	55.53	0.50 U	0.50 U	0.30 J	0.54
ESI-3-13	ESI-3-13	12/11/2002	0.17	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-13	ESI-3-13	12/11/2002	1.06	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-14	ESI-3-14	12/12/2002	0.63	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-14	ESI-3-14	12/12/2002	0.74	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-14	ESI-3-14	12/12/2002	3.46	0.50 U	0.50 U	0.50 U	0.50 U
ESI-3-15	ESI-3-15	12/17/2002	205810 J	150 U	18200	132000 J	52000 J
ESI-3-15	ESI-3-15	12/17/2002	236870 J	289 U	321 UJ	204000	20900
ESI-3-15	ESI-3-15	12/17/2002	327370 J	289 U	321 U	227000	92900
ESI-3-16	ESI-3-16	12/17/2002	327000	289 U	321 U	217 UJ	327000
ESI-3-16	ESI-3-16	12/17/2002	496865	4500 J	214000	107000	171000
ESI-3-16	ESI-3-16	12/17/2002	560399	3940 J	158000	179000	219000
ESI-3-2	ESI-3-2	12/5/2002	200335 J	116 U	68800	84500	44700
ESI-3-2	ESI-3-2	12/5/2002	279310 J	289 U	321 U	207000	70400



**TABLE 4.3**  
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ESI-3-2	ESI-3-2	12/6/2002	283978 J	289 U	321 U	209000	72300
ESI-3-2	ESI-3-2	12/6/2002	98103 J	416 J	42800	48600	5040
ESI-3-3	ESI-3-3	12/9/2002	23908.6	1780	17500	4460	27.9
ESI-3-3	ESI-3-3	12/9/2002	211623	11200	177000 J	21300	796
ESI-3-3	ESI-3-3	12/9/2002	106000 J	23200	82800	86.6 UJ	121 U
ESI-3-4	ESI-3-4	12/9/2002	8828.9	913	3790	4060	21.6
ESI-3-4	ESI-3-4	12/9/2002	13854.7	116	361	13300	65.6
ESI-3-5	ESI-3-5	12/6/2002	11.9805	0.156 J	2.64	6.99	2.05
ESI-3-5	ESI-3-5	12/6/2002	188.348	1.63	20.9	150	14.6
ESI-3-5	ESI-3-5	12/6/2002	4107.38	0.6 U	13.4 J	4010	73.3
ESI-3-6	ESI-3-6	12/6/2002	82.298	2.38	41.8	30.5	6.69
ESI-3-6	ESI-3-6	12/9/2002	16.253	0.353 J	4.66	8.21	2.86
ESI-3-8	ESI-3-8	12/10/2002	14883.3	940 J	9000	4300	450
ESI-3-8	ESI-3-8	12/10/2002	207020	260 J	23000	130000	47000
ESI-3-9	ESI-3-9	12/10/2002	221028.3	42 J	160 J	210 J	220000
ESI-3-9	ESI-3-9	12/10/2002	4110370	100000	2500000	630000	870000
ESI-4-1	ESI-4-1	12/16/2002	21136	6100	13000	2000	0.23 U
ESI-4-1	ESI-4-1	12/16/2002	157279.2	15000	140000	1700	260
ESI-4-1	ESI-4-1	12/16/2002	191203.1	25000	150000	11000	4400
ESI-4-10	ESI-4-10	12/17/2002	28785	13000	15000	750	0.23 U
ESI-4-10	ESI-4-10	12/17/2002	15143.2 J	0.15 U	0.16 UJ	15000	90
ESI-4-10	ESI-4-10	12/17/2002	35849 J	17000	18000	810	0.23 U
ESI-4-2	ESI-4-2	12/13/2002	1709.8	110	1100	310	180
ESI-4-2	ESI-4-2	12/13/2002	453.6 J	0.15 U	0.16 UJ	220	230 J
ESI-4-3	ESI-4-3	12/16/2002	379.4	54	260	43	21
ESI-4-3	ESI-4-3	12/16/2002	277960	150 U	200 U	3960	274000
ESI-4-3	ESI-4-3	12/16/2002	127406 J	30 U	40 U	69500 J	57500 J
ESI-4-4	ESI-4-4	12/15/2002	150.552	2.05	17.7	49.6	80.6
ESI-4-4	ESI-4-4	12/15/2002	42884.5 J	243	8950	16400 J	17200 J
ESI-4-4	ESI-4-4	12/15/2002	673.245 J	4.44	67.8	220 J	376 J
ESI-4-5	ESI-4-5	12/15/2002	120.035 J	0.15 U	1.43	118 J	0.25 UJ
ESI-4-5	ESI-4-5	12/15/2002	1369.5 J	2.6 J	11.9	1350 J	1 UJ
ESI-4-8	ESI-4-8	12/16/2002	0.075 UJ	0.015 U	0.02 U	0.015 UJ	0.025 UJ
ESI-4-8	ESI-4-8	12/16/2002	0.503 J	0.015 U	0.02 U	0.227 J	0.276 J
ESI-4-9	ESI-4-9	12/15/2002	1.041	0.015 U	0.02 U	0.45	0.591
ESI-4-9	ESI-4-9	12/15/2002	1.398	0.015 U	0.02 U	0.604	0.794
ESI-4-9	ESI-4-9	12/15/2002	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
EW-101-50	EW-101-50	5/13/1993 (Duplicate)	0.202 J	0.015 U	0.02 U	0.062 J	0.14 J
EW-101-50	EW-101-50	5/13/1993	0.922 J	0.015 U	0.131 J	0.393 J	0.398 J
EW-101-50	EW-101-50	5/18/1993	0.075 UJ	0.015 U	0.02 U	0.015 UJ	0.025 UJ
EW-101-50	EW-101-50	5/24/1993	0.075 UJ	0.015 U	0.02 U	0.015 UJ	0.025 UJ
EW-101-50	EW-101-50	6/1/1993	0.075 UJ	0.015 U	0.02 U	0.015 UJ	0.025 UJ
EW-138-145	EW-138-145	5/12/1993	1564.89	3.41 J	1140 J	415	6.48 J
EW-138-145	EW-138-145	5/17/1993	4288	136	3390 J	599	163
EW-138-145	EW-138-145	5/24/1993	4241.4	346	3230 J	641	24.4 J
EW-138-145	EW-138-145	6/1/1993	31420	1010	28200	2210	162 U
F-10	F-10	9/19/1996	196.6 J	1.44 UJ	165 J	31.6 J	1.62 UJ
F-10	F-10	2/24/1997	41.2 J	0.72 UJ	29.4 J	11.8 J	0.81 UJ
F-10	F-10	5/7/1997	54.412	0.285 J	45.9	8.01	0.217 J
F-10	F-10	8/14/1997	18.92 J	0.144 UJ	15.7 J	3.22 J	0.162 UJ
F-10	F-10	11/18/1997	26.24	0.23 J	21.9	3.93	0.18 J
F-10	F-10	2/9/1998	19.77	0.144 U	16.6	3.17	0.162 U
F-10	F-10	5/5/1998	11.07 J	0.144 UJ	9.22 J	1.85 J	0.162 UJ
F-2	F-2	9/19/1996	0.268 J	0.144 UJ	0.268 J	0.154 UJ	0.162 UJ
F-2	F-2	2/24/1997	18.325	0.205 J	14.8	3.32	0.162 U
F-2	F-2	5/7/1997	36.82	0.542 J	30.6 J	5.46	0.218 J
F-2	F-2	8/14/1997	13.47	0.144 U	10.6 J	2.87 J	0.162 U
F-2	F-2	11/26/1997	3732	1.50 U	1200	2400	87
F-2	F-2	2/9/1998	996.5	1.50 U	80	860	40
F-2	F-2	5/5/1998	50.8	1.50 U	6.2	37	2.6 J
F-3	F-3	9/19/1996	4.5	1.50 U	1.60 U	1.60 U	2.30 U
F-3	F-3	2/24/1997	5.7	1.50 U	1.60 U	1.60 U	2.30 U
F-3	F-3	5/7/1997	6.8	1.50 U	1.60 U	1.60 U	2.30 U
F-3	F-3	8/14/1997	6.6	0.15 U	0.16 U	0.16 U	0.23 U
F-3	F-3	11/18/1997	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-3	F-3	2/9/1998	5.7 J	1.50 U	1.60 U	1.60 U	2.30 U
F-3	F-3	5/5/1998	6.9 J	1.50 U	1.60 U	1.60 U	2.30 U
F-4	F-4	9/19/1996	10 J	1.50 U	1.60 U	1.60 U	2.30 U
F-4	F-4	2/24/1997	3.50 U	1.50 U	1.60 U	1.60 U	2.30 U
F-4	F-4	5/7/1997	3.50 U	1.50 U	1.60 U	1.60 U	2.30 U
F-4	F-4	8/14/1997	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

F-4	F-4	11/18/1997	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4	F-4	2/9/1998	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4	F-4	5/5/1998	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4A	F-4A	9/19/1996	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4A	F-4A	2/24/1997	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4A	F-4A	5/7/1997	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4A	F-4A	8/14/1997	3.50 UJ	1.50 U	1.60 U	1.60 U	2.30 U
F-4A	F-4A	11/18/1997	3.52	0.289 U	0.321 U	3.52 J	0.302 U
F-4A	F-4A	2/9/1998	6.75	0.0578 U	0.0641 U	6.75	0.0604 U
F-4A	F-4A	5/5/1998	5.683	0.116 U	0.128 U	5.15	0.121 U
F-5	F-5	9/19/1996	1.71	0.289 U	0.321 U	1.71 J	0.302 U
F-5	F-5	2/24/1997	5.35	1.16 U	1.28 U	1.71 J	1.21 U
F-5	F-5	5/7/1997	1.69	0.0578 U	0.0641 U	1.69	0.0604 U
F-5	F-5	8/14/1997	0.564	0.0578 U	0.0641 U	0.564 J	0.0604 U
F-5	F-5	11/18/1997	0.926	0.123 J	0.0641 U	0.803 J	0.0604 U
F-5	F-5	2/9/1998	1.1441	0.078 J	0.0811 J	0.985 J	0.0604 U
F-5	F-5	5/5/1998	0.297	0.0578 U	0.0641 U	0.297 J	0.0604 U
F-6	F-6	9/19/1996	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-6	F-6	2/24/1997	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-6	F-6	5/7/1997	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-6	F-6	8/14/1997	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-6	F-6	11/18/1997	0.0882	0.0578 U	0.0641 U	0.0882 J	0.0604 U
F-6	F-6	2/9/1998	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-6	F-6	5/5/1998	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-7	F-7	9/19/1996	4.21	0.289 U	0.321 U	4.21 J	0.302 U
F-7	F-7	2/24/1997	6.844	0.709 J	0.915 J	5.22	0.302 U
F-7	F-7	5/7/1997	0.66	0.289 U	0.321 U	0.66 J	0.302 U
F-7	F-7	8/14/1997	0.455	0.289 U	0.321 U	0.455 J	0.302 U
F-7	F-7	11/18/1997	0.406	0.289 U	0.321 U	0.406 J	0.302 U
F-7	F-7	2/9/1998	0.575	0.289 U	0.321 U	0.575 J	0.302 U
F-7	F-7	5/5/1998	0.227	0.0578 U	0.0641 U	0.227 J	0.0604 U
F-8	F-8	9/19/1996	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-8	F-8	2/24/1997	0.67	0.146 J	0.0641 U	0.524 J	0.0604 U
F-8	F-8	5/7/1997	0.121	0.0578 U	0.0641 U	0.121 J	0.0604 U
F-8	F-8	8/14/1997	0.54	0.116 U	0.128 U	0.0866 U	0.121 U
F-8	F-8	11/18/1997	0.218	0.0578 U	0.0641 U	0.218 J	0.0604 U
F-8	F-8	2/9/1998	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-8	F-8	5/5/1998	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-9	F-9	9/19/1996	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-9	F-9	2/24/1997	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-9	F-9	5/7/1997	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-9	F-9	8/14/1997	0.1728	0.103 J	0.0641 U	0.0698 J	0.0604 U
F-9	F-9	11/18/1997	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
F-9	F-9	2/9/1998	6.2	0.15 U	0.16 U	6.2	0.23 U
F-9	F-9	5/5/1998	60650	0.15 U	0.16 U	3400	56000
GP-10	GW-032604-CC-GP10-100-09	3/26/2004	65810	500 U	1800	49000	13000
GP-10	GW-032604-CC-GP10-25-07	3/26/2004	93820	460 J	6300	66000	16000
GP-11	GW-032504-CC-GP11-50-05	3/25/2004	18.1	2 U	2 U	4.1	14
GP-11	GW-032504-CC-DUP01	3/25/2004	1400	12.5 U	12.5 U	300	1100
GP-12	GW-040204-CC-GP12-50-29	4/2/2004	82660	250 U	5900	48000	23000
GP-12	GW-040504-CC-GP12-100-31	4/5/2004	2167	50 U	50 U	67	2100
GP-13	GW-040104-CC-GP13-25-25	4/1/2004	39470 J	500 U	800	22000	15000
GP-14	GW-0704-GP14-50	7/7/2004	286610	20000	140000	87000	16000
GP-15	GW-0704-GP15-50	7/7/2004	10.5	0.289 U	0.321 U	10.5	0.302 U
GP-15	GW-0704-GP15-25	7/7/2004	26.8	0.578 U	0.641 U	26.8	0.604 U
GP-15	GW-0704-GP15-100	7/8/2004	98940	7500	42000	32000	13000
GP-16	GW-0704-GP16-25	7/8/2004	250.7	0.578 U	0.641 U	184	63.5
GP-16	GW-0704-GP16-100	7/8/2004	556.75	1.16 U	1.28 U	524	30.7
GP-16	GW-0704-FD-01~GP16-25	7/8/2004	317320 J	23000	180000	61000	14000
GP-16	GW-0704-GP16-50	7/8/2004	4200.9 J	5.78 UJ	6.41 UJ	3990 J	198 J
GP-2	GW-032904-CC-GP2-25-13	3/29/2004	111700	950	12000	74000	16000
GP-2	GW-033004-CC-GP2-50-14	3/30/2004	112560	1200	19000	65000	21000
GP-3	GW-032904-CC-GP3-25-10	3/29/2004	102920	480	13000	62000	20000
GP-4	GW-040604-CC-DUP-04	4/6/2004	2150	25 U	25 U	350	1800
GP-4	GW-040604-CC-GP4-100-37	4/6/2004	8400	250 U	250 U	1600	6800
GP-5	GW-040504-CC-GP5-25-32	4/5/2004	6200	50 U	50 U	50 U	6200 J
GP-5	GW-040504-CC-GP5-50-33	4/5/2004	6500	250 U	250 U	250 U	6500
GP-6	GW-040504-CC-GP6-50-34	4/5/2004	3000	250 U	250 U	250 U	3000
GP-7	GW-033004-CC-GP7-50-17	3/30/2004	51100	650	7100	33000	4500
GP-7	GW-033004-CC-GP7-25-16	3/30/2004	103940	1600	19000	54000	18000
GP-7	GW-033004-CC-DUP-02	3/30/2004	114080	690	13000	73000	19000

TABLE 4.3

SUMMARY OF VOCs  
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GP-8	GW-033104-CC-GP8-100-21	3/31/2004	17794	100 U	100 U	8700	8900
GP-9	GW-032504-CC-GP9-100-03	3/25/2004	5.05	0.21 J	2.2	2.4	0.14 U
HW-1	GW-012407-BS-HW-1-003	1/24/2007	356	110	150	-	5
HW-1	GW-012407-BS-HW-1-001	1/24/2007	547	120	230	-	9
HW-2	GW-012507-BS-HW-2-002	1/25/2007	31.85	15	11	2.6	0.50 U
HW-3	GW-012207-BS-HW-3-001	1/22/2007	0.357	0.066 U	0.27 J	0.087 J	0.14 U
HW-3	GW-012207-BS-HW-3-002	1/22/2007	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
HW-4	GW-012307-BS-HW-4-001	1/23/2007	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
HW-4	GW-012307-BS-HW-4-002	1/23/2007	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
HYD-10	GW-091605-HYD-10-003	9/16/2005	32.6	5 U	5 U	4.6 J	28
HYD-10	GW-091605-HYD-10-002	9/16/2005	28 J	5 U	5 U	4.0 J	24
HYD-10	GW-091605-HYD-10-001	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-005	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-006	9/16/2005	(Duplicate)	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-007	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-008	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-009	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-010	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-011	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-10	GW-091605-HYD-10-004	9/16/2005	63 J	5 U	5 U	15	48
HYD-10	GW-091705-HYD-10-012	9/17/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
HYD-4	GW-092205-HYD-4-001	9/22/2005	19080	17000	1800	280	100 U
HYD-4	GW-092205-HYD-4-002	9/22/2005	1.0 U	-	-	-	-
HYD-4	GW-092405-HYD-4-009	9/24/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
HYD-4	GW-092605-HYD-4-012	9/26/2005	122.282	2.31	38.5	71.7	7.21
HYD-4	GW-092605-HYD-4-011	9/26/2005	221.27	4.82 J	72.6	129	10.8
HYD-4	GW-092605-HYD-4-010	9/26/2005	327.31	2.79 J	108	197	13.2
HYD-4	GW-092605-HYD-4-013	9/26/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
HYD-5	GW-100405-HYD-5-001	10/4/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
HYD-5	GW-100505-HYD-5-006	10/5/2005	0.221	0.015 U	0.109 J	0.112 J	0.025 U
HYD-5	GW-100505-HYD-5-004	10/5/2005	(Duplicate)	0.264	0.015 U	0.181 J	0.083 J
HYD-5	GW-100505-HYD-5-008	10/5/2005	0.375	0.015 U	0.196 J	0.179 J	0.025 U
HYD-5	GW-100505-HYD-5-003	10/5/2005	0.515	0.015 U	0.274 J	0.241 J	0.025 U
HYD-5	GW-100505-HYD-5-007	10/5/2005	0.518	0.07 J	0.221 J	0.227 J	0.025 U
HYD-5	GW-100505-HYD-5-002	10/5/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
HYD-5	GW-100505-HYD-5-005	10/5/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
HYD-6	GW-093005-HYD-6-003	9/30/2005	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
HYD-6	GW-093005-HYD-6-004	9/30/2005	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
HYD-6	GW-093005-HYD-6-001	9/30/2005	0.17 J	0.015 UJ	0.051 J	0.057 J	0.062 J
HYD-6	GW-093005-HYD-6-002	9/30/2005	1.795 J	0.015 UJ	0.886 J	0.733 J	0.176 J
HYD-6	GW-100105-HYD-6-005	10/1/2005	0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
HYD-6	GW-100105-HYD-6-006	10/1/2005	10.436 J	0.5 J	4.94 J	4.31 J	0.686 J
HYD-6	GW-100305-HYD-6-008	10/3/2005	(Duplicate)	27.0326	0.0596 J	0.673 J	26.3
HYD-6	GW-100305-HYD-6-009	10/3/2005	70.309	0.0578 U	0.455 J	56.4	12.4
HYD-6	GW-100305-HYD-6-007	10/3/2005	95.65	0.578 U	1.61 J	92.8	1.24 J
HYD-6	GW-100405-HYD-6-013	10/4/2005	0.659	0.106 J	0.266 J	0.287 J	0.025 U
HYD-6	GW-100405-HYD-6-010	10/4/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
HYD-6	GW-100405-HYD-6-011	10/4/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
HYD-6	GW-100405-HYD-6-012	10/4/2005	0.417 J	0.015 U	0.166 U	0.185 J	0.066 J
HYD-7	GW-091405-HYD-7-005	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-7	GW-091405-HYD-7-006	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-7	GW-091505-HYD-7-007	9/15/2005	5 U	5 U	5 U	5 U	3 U
HYD-7	GW-091505-HYD-7-008	9/15/2005	5 U	5 U	5 U	5 U	3 U
HYD-7	GW-091505-HYD-7-009	9/15/2005	5 U	5 U	5 U	5 U	3 U
HYD-7	GW-091605-HYD-7-011	9/16/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
HYD-7	GW-091605-HYD-7-012	9/16/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
HYD-7	GW-091605-HYD-7-010	9/16/2005	5 U	5 U	5 U	5 U	3 U
HYD-8	GW-091305-HYD-8-004	9/13/2005	5 U	5 U	5 U	5 U	3 U
HYD-8	GW-091405-HYD-8-005	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-8	GW-091405-HYD-8-006	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-8	GW-091405-HYD-8-007	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-8	GW-091405-HYD-8-008	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-8	GW-091405-HYD-8-009	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-9	GW-091405-HYD-9-001	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-9	GW-091405-HYD-9-002	9/14/2005	5 U	5 U	5 U	5 U	3 U
HYD-9	GW-091505-HYD-9-007	9/15/2005	1.6 J	5 U	5 U	5 U	1.6 J
HYD-9	GW-091505-HYD-9-005	9/15/2005	5 U	5 U	5 U	5 U	3 U
HYD-9	GW-091505-HYD-9-009	9/15/2005	5 U	5 U	5 U	5 U	3 U
HYD-9	GW-091505-HYD-9-010	9/15/2005	5 U	5 U	5 U	5 U	3 U
HYD-9	GW-091505-HYD-9-003	9/15/2005	5 UJ	5 U	5 U	5 U	3 UJ
HYD-9	GW-091505-HYD-9-004	9/15/2005	5 UJ	5 U	5 U	5 U	3 UJ

TABLE 4.3

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HYD-9	GW-091505-HYD-9-006	9/15/2005	5 UJ	5 U	5 U	5 U	3 U
HYD-9	GW-091505-HYD-9-008	9/15/2005	5 UJ	5 U	5 U	5 U	3 U
MW-EXT-9-DEEP	GW-071113-NH-MW-EXT-9-DEEP-1	7/11/2013	0.357	0.144 U	0.126 U	0.357 J	0.162 U
MW-EXT-9-DEEP	GW-071113-NH-MW-EXT-9-DEEP-2	7/11/2013	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
MW-EXT-9-DEEP	GW-071213-NH-MW-EXT-9-DEEP-3	7/12/2013	7.397	0.0578 U	0.407 J	6.99	0.0604 U
MW-EXT-9-DEEP	GW-071213-NH-MW-EXT-9-DEEP-5	7/12/2013	9.238	0.0578 U	0.198 J	9.04	0.0604 U
MW-EXT-9-DEEP	GW-071213-NH-MW-EXT-9-DEEP-4	7/12/2013	129.463	0.289 U	0.321 U	129	0.302 U
MW-EXT-9-DEEP	GW-071513-NH-MW-EXT-9-DEEP-6	7/15/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-EXT-9-DEEP	GW-071513-NH-MW-EXT-9-DEEP-7	7/15/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-EXT-9-DEEP	GW-071513-NH-MW-EXT-9-DEEP-8	7/15/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-EXT-9-DEEP	GW-071613-NH-MW-EXT-9-DEEP-10	7/16/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-EXT-9-DEEP	GW-071613-NH-MW-EXT-9-DEEP-9	7/16/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-EXT-9-DEEP	GW-071713-NH-MW-EXT-9-DEEP-11	7/17/2013	7.25	0.15 U	0.75 J	3.7 J	2.8 J
MW-EXT-9-DEEP	GW-071713-NH-MW-EXT-9-DEEP-12	7/17/2013	9.88	0.15 U	0.98 J	4.6 J	4.3 J
MW-EXT-9-DEEP	GW-071713-NH-MW-EXT-9-DEEP-13	7/17/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-EXT-9-DEEP	GW-092713-MD-MW-ext-9-Deep	9/27/2013	210530 J	11700	29000	129000 J	40300 J
MW-EXT-9-INT	GW-092713-MD-MW-ext-9-Intermediate	9/27/2013	54899.3 J	8770	29900	7150 J	8850 J
MW-EXT-9-SHALLOW	GW-092713-MD-MW-ext-9-Shallow	9/27/2013	6116.1 J	652	5080	353 J	11.7 J
MW-F-DEEP	GW-070113-NH-F3	7/1/2013	33502	2800	17000	10000	2400
MW-F-DEEP	GW-070113-NH-F2	7/1/2013	144830	10000 J	72000 J	44000 J	8800 J
MW-F-DEEP	GW-070113-NH-F4	7/1/2013	326590	26000 J	170000 J	42000 J	7900 J
MW-F-DEEP	GW-070213-NH-F-6	7/2/2013	279050	19000	150000	55000	13000
MW-F-DEEP	GW-070213-NH-F-5	7/2/2013	206380 J	17000 J	110000 J	27000 J	4900 J
MW-F-DEEP	GW-070313-NH-F-8	7/3/2013	311471	20000	170000	62000	17000
MW-F-DEEP	GW-070813-NH-MW-F-DEEP-10	7/8/2013	0.986	0.0578 U	0.422 J	0.564 J	0.0604 U
MW-F-DEEP	GW-070813-NH-MW-F-DEEP-11	7/8/2013	1.231	0.0578 U	0.562 J	0.669 J	0.0604 U
MW-F-DEEP	GW-070813-NH-MW-F-DEEP-12	7/8/2013	1.233	0.0578 U	0.512 J	0.721 J	0.0604 U
MW-F-DEEP	GW-070913-NH-MW-F-DEEP-13	7/9/2013	1.502	0.0578 U	0.569 J	0.933 J	0.0604 U
MW-F-DEEP	GW-092613-NH-MW-F-D	9/26/2013	3465.1	5.78 U	874	2200	188
MW-F-INT	GW-092613-NH-MW-F-I	9/26/2013	2517.4	55.6 J	1680	593	125
MW-G-DEEP	GW-062613-NH-MW-G-DEEP-10	7/26/2013	181100	5400	110000 J	36000	4400
MW-G-DEEP	GW-072913-NH-MW-G-DEEP-13	7/29/2013	3.6	0.15 U	0.16 U	3.6	0.23 U
MW-G-DEEP	GW-072913-NH-MW-G-DEEP-12	7/29/2013	317.08	0.15 U	2.4	270	44
MW-G-DEEP	GW-072913-NH-MW-G-DEEP-11	7/29/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-G-DEEP	GW-073013-KB-MW-G-DEEP-14	7/30/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-G-DEEP	GW-073013-KB-MW-G-DEEP-15	7/30/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-G-DEEP	GW-073013-KB-MW-G-DEEP-16	7/30/2013	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
MW-G-DEEP	GW-073113-KB-MW-G-DEEP-18	7/31/2013	2.7	0.15 U	0.16 U	0.16 U	0.23 U
MW-G-DEEP	GW-073113-KB-MW-G-DEEP-17	7/31/2013	9.9	0.15 U	0.16 U	0.16 U	0.23 U
MW-G-DEEP	GW-092513-NH-MW-G-D	9/25/2013	126533	57.8 U	64.1 U	76300	46200
MW-G-INT	GW-092613-NH-FD1	9/26/2013	3430.9	5.78 U	6.41 U	1300	2060
MW-G-INT	GW-092613-NH-MW-G-I	9/26/2013	94155	243 J	26100	48100	15900
MW-G-SHALLOW	GW-092513-NH-MW-G-S	9/25/2013	87063	973 J	52000	27100	5970
MW-H-01	GW-062013-MD-FD-1	6/20/2013	57640	5400	26000	12000	5100
MW-H-01	GW-062013-MD-H-01-3	6/20/2013	58900	5500	27000	12000	5200
MW-H-01	GW-062113-MD-H-01-7	6/21/2013	137900	6600	62000	24000	1300
MW-H-01	GW-062113-MD-H-01-6	6/21/2013	164900	6700 J	74000 J	30000 J	2200 J
MW-H-01	GW-062613-NH-H-01-11	6/26/2013	146700	10000	82000	28000	3400
MW-H-01	GW-062713-NH-MW-H-01-12	6/27/2013	82510	2800	6500	50000	20000
MW-H-01	GW-092713-NH-H-01	9/27/2013	400.63 J	58.9	226	111 J	3.83 J
NL-13	GW-122005-NL-13-003	12/20/2005	23.6	0.15 U	0.16 U	2.6 J	21
NL-13	GW-122005-NL-13-002	12/20/2005	89	0.15 U	0.16 U	12	77
NL-13	GW-122005-NL-13-001	12/20/2005	627.4	0.15 U	0.16 U	35	590
NL-13	GW-122005-NL-13-004	12/20/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-13	GW-122005-NL-13-005	12/20/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-13	GW-122105-NL-13-006	12/21/2005	128710.308	0.015 U	0.308 J	57200	69400
NL-13	GW-122105-NL-13-009	12/21/2005	104199.2 J	3 U	1760	45600	55300
NL-13	GW-122105-NL-13-010	12/21/2005	151696.5 J	15 U	31.5 J	28200	122000
NL-13	GW-122105-NL-13-007	12/21/2005	389270 J	15 U	20 U	269000	115000
NL-13	GW-122105-NL-13-008	12/21/2005	87873.7 J	3 U	4 U	926	86700
NL-13	GW-122105-NL-13-011	12/21/2005	946.523 J	0.03 U	0.303 J	253	684
NL-14	GW-121405-NL-14-001	12/14/2005	4	0.15 U	0.16 U	1.1 J	2.9 J
NL-14	GW-121405-NL-14-005	12/14/2005	561.6	0.15 U	0.16 U	1.6 J	560
NL-14	GW-121405-NL-14-003	12/14/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-14	GW-121405-NL-14-004	12/14/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-14	GW-121405-NL-14-002	12/14/2005	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
NL-14	GW-121505-NL-14-009	12/15/2005	176	0.15 U	0.16 U	16	160
NL-14	GW-121505-NL-14-011	12/15/2005	190	0.15 U	0.16 U	130	56
NL-14	GW-121505-NL-14-010	12/15/2005	1125.2	0.15 U	0.16 U	660	430
NL-14	GW-121505-NL-14-006	12/15/2005	8922.6	0.15 U	0.16 U	4.6 J	8900
NL-14	GW-121505-NL-14-007	12/15/2005	18184.3	0.15 U	0.16 U	9000	8800

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
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NL-14	GW-121505-NL-14-008	12/15/2005	63823	0.15 U	11	43000	19000
NL-15	GW-121605-NL-15-003	12/16/2005	1.3	0.15 U	0.16 U	1.3 J	0.23 U
NL-15	GW-121605-NL-15-004	12/16/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-15	GW-121605-NL-15-005	12/16/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-15	GW-121605-NL-15-006	12/16/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NL-15	GW-121605-NL-15-002	12/16/2005	4.6 J	0.15 U	0.16 U	2.3 J	2.3 J
NL-15	GW-121605-NL-15-001	12/16/2005	41.08 J	0.15 U	0.16 U	32	7.8
NL-15	GW-121905-NL-15-007	12/19/2005	55	0.15 U	0.16 U	0.16 U	55
NL-15	GW-121905-NL-15-009	12/19/2005	9139	0.15 U	0.16 U	1500 J	7600
NL-15	GW-121905-NL-15-008	12/19/2005	10735	0.15 U	0.16 U	3200 J	7500
NL-15	GW-121905-NL-15-010	12/19/2005	69700	0.15 U	0.16 U	17000	52000
NL-16	GW-051806-NL-16-BI-004	5/18/2006	21.1 J	5 U	5 U	5 U	6.1
NL-16	GW-051906-NL-16-BI-008	5/19/2006	3.1	0.066 U	0.055 U	0.062 U	1.9
NL-16	GW-051906-NL-16-BI-007	5/19/2006	16.8	2 U	2 U	2 U	4.8
NL-17	GW-033006-RB-NL-17-002	3/30/2006	8433	140 J	830	5600	1400
NL-17	GW-033006-RB-NL-17-001	3/30/2006	61780	910	12000	34000	9100
NL-17	GW-033106-GH-NL-17-004	3/31/2006	517.7	0.66 U	0.55 U	190	320
NL-17	GW-033106-GH-NL-17-003	3/31/2006	2330	2 U	2	1100	1200
NL-24	GW-011507-BS-NL-24-004	1/15/2007	0.43	0.144 U	0.126 U	0.154 U	0.162 U
NL-24	GW-011507-BS-NL-24-003	1/15/2007	2.447	0.144 U	0.126 U	0.154 U	0.162 U
NL-24	GW-011507-BS-NL-24-002	1/15/2007	2.584	0.144 U	0.126 U	0.154 U	0.162 U
NL-24	GW-011507-BS-NL-24-005	1/15/2007	106.378	14.4 U	12.6 U	15.4 U	106
NL-25	GW-011807-ILM-NL-25-004	1/18/2007	54	0.15 U	0.16 U	39	15
NL-25	GW-011807-ILM-NL-25-005	1/18/2007	110	0.15 U	0.16 U	76	34
NL-25	GW-011807-ILM-NL-25-003	1/18/2007 (Duplicate)	1007.98	0.15 U	0.38 J	280	720
NL-25	GW-011807-ILM-NL-25-002	1/18/2007	39028.2	0.15 U	3.2 J	30000	8400
NL-25	GW-011807-ILM-NL-25-001	1/18/2007	146580	0.15 U	10	120000	24000
NL-25	GW-011907-ILM-NL-25-006	1/19/2007	70.14	0.066 U	0.055 U	36	33
NL-26	GW-011707-ILM-NL-26-001	1/17/2007	27656	33 U	28 U	600	27000
NL-26	GW-011707-ILM-NL-26-002	1/17/2007	61540	66 U	55 U	24000	37000
NL-26	GW-011807-ILM-NL-26-004	1/18/2007 (Duplicate)	35	0.15 U	0.16 U	23	12
NL-26	GW-011807-ILM-NL-26-005	1/18/2007	58.6	0.15 U	1.6 J	46	8.8
NL-26	GW-011807-ILM-NL-26-003	1/18/2007	496.2	0.15 U	0.16 U	330	160
NL-28	GW-011607-BS-NL-28-001	1/16/2007	70983	144 U	126 U	31700	38800
NL-28	GW-011707-BS-NL-28-002	1/17/2007	39.202	0.172 J	2.23	11.8	25
NL-28	GW-011707-BS-NL-28-004	1/17/2007	25913.84	0.066 U	0.84 J	6700	19000
NL-28	GW-011707-BS-NL-28-005	1/17/2007	27676	33 U	28 U	2500	25000
NL-28	GW-011707-BS-NL-28-003	1/17/2007	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
NL-29	GW-011807-BS-NL-29-001	1/18/2007	36521	0.15 U	1.0 J	27000	8400
NL-29	GW-011807-BS-NL-29-002	1/18/2007	84612.5	0.15 U	2.5 J	52000	31000
NL-29	GW-011807-BS-NL-29-003	1/18/2007	100582.6	0.15 U	9.6	52000	47000
NL-29	GW-011807-BS-NL-29-004	1/18/2007	118836	0.15 U	10	81000	36000
NL-29	GW-011807-BS-NL-29-005	1/18/2007	118936	0.15 U	11	81000	36000
NL-30	GW-011907-BS-NL-30-002	1/19/2007	0.75	0.066 U	0.055 U	0.42 J	0.33 J
NL-30	GW-011907-BS-NL-30-003	1/19/2007	3.23	0.066 U	0.055 U	2.4	0.83 J
NL-30	GW-011907-BS-NL-30-001	1/19/2007	526.6	0.66 U	0.55 U	350	170
NL-30	GW-011907-ILM-NL-30-004	1/19/2007	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
NL-30	GW-011907-ILM-NL-30-005	1/19/2007	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
NTD-1	GW-011007-TS-NTD1-002	1/10/2007	2.5	0.15 U	0.16 U	0.16 U	2.5 J
NTD-1	GW-011007-TS-NTD1-001	1/10/2007	7.67	0.015 U	0.02 U	2.64	5.03
NTD-1	GW-011107-TS-NTD1-003	1/11/2007	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
NTD-2	GW-121206-ILM-NTD2-004	12/12/2006 (Duplicate)	35	0.15 U	0.16 U	11	24
NTD-2	GW-121206-ILM-NTD2-003	12/12/2006	124	0.15 U	0.16 U	24	100
NTD-2	GW-121306-ILM-NTD2-006	12/13/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
NTD-2	GW-121406-ILM-NTD2-010	12/14/2006	481.5	0.15 U	0.16 U	1.5 J	480
Pier25-1	GW-063005-Pier25-1-001	6/30/2005	198310	10000	100000	55000	17000
Pier25-1	GW-070105-PIER25-1-003	7/1/2005	41640	2700	11000	24000	1900
Pier25-1	GW-070105-PIER25-1-004	7/1/2005 (Duplicate)	149080	9800 J	75000 J	46000 J	8500 J
Pier25-1	GW-070105-PIER25-1-002	7/1/2005	1005.2 / 169400 J	11000	90000	47000	8700
Pier25-1	GW-070505-PIER25-1-005	7/5/2005	1.149	0.0578 U	0.0641 U	0.397 J	0.752 J
Pier25-1	GW-070505-PIER25-1-006	7/5/2005	0.0609 J	0.0578 UJ	0.0641 UJ	0.0433 UJ	0.0609 J
Pier25-1	GW-072705-PIER25-1-010	7/27/2005	121.382	0.06 U	3.46	8.48	107
Pier25-1	GW-072705-PIER25-1-009	7/27/2005	3273.94	0.6 U	76.7	963	2220
Pier25-10	GW-102605-PIER25-10-001	10/26/2005	62.1	6.7	18	29	1.8 J
Pier25-10	GW-102705-PIER25-10-005	10/27/2005	0.26	0.15 U	0.26 J	0.16 U	0.23 U
Pier25-10	GW-102705-PIER25-10-007	10/27/2005	0.27	0.27 J	0.16 U	0.16 U	0.23 U
Pier25-10	GW-102705-PIER25-10-003	10/27/2005	0.43	0.43 J	0.16 U	0.16 U	0.23 U
Pier25-10	GW-102705-PIER25-10-006	10/27/2005	0.77	0.61 J	0.16 J	0.16 U	0.23 U
Pier25-10	GW-102705-PIER25-10-004	10/27/2005	0.78	0.78 J	0.16 U	0.16 U	0.23 U
Pier25-10	GW-102705-PIER25-10-008	10/27/2005	0.91	0.30 J	0.16 U	0.36 J	0.23 U
Pier25-10	GW-102705-PIER25-10-009	10/27/2005 (Duplicate)	1.62	0.26 J	0.16 J	0.16 U	1.2

**TABLE 4.3**  
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Pier25-10	GW-102705-PIER25-10-002	10/27/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-10	GW-102805-PIER25-10-010	10/28/2005	0.3	0.30 J	0.16 U	0.16 U	0.23 U
Pier25-10	GW-102805-PIER25-10-011	10/28/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-11	GW-100605-PIER25-11-001	10/6/2005	1.959	0.144 U	0.226 J	1.15	0.378 J
Pier25-11	GW-100605-PIER25-11-002	10/6/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
Pier25-11	GW-100605-PIER25-11-003	10/6/2005 (Duplicate)	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
Pier25-11	GW-100605-PIER25-11-004	10/6/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
Pier25-11	GW-100705-PIER25-11-008	10/7/2005	0.138	0.144 U	0.138 J	0.154 U	0.162 U
Pier25-11	GW-100705-PIER25-11-007	10/7/2005	0.158	0.144 U	0.126 U	0.158 J	0.162 U
Pier25-11	GW-100705-PIER25-11-006	10/7/2005	0.314	0.144 U	0.137 J	0.177 J	0.162 U
Pier25-11	GW-100705-PIER25-11-005	10/7/2005	0.906	0.163 J	0.282 J	0.461 J	0.162 U
Pier25-11	GW-100705-PIER25-11-009	10/7/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
Pier25-11	GW-100705-PIER25-11-010	10/7/2005	0.181 UJ	0.144 U	0.126 UJ	0.154 U	0.162 U
Pier25-11	GW-100805-PIER25-11-011	10/8/2005	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
Pier25-12	GW-020106-PIER25-12-003	2/1/2006 (Duplicate)	6.4	2.5 U	2.5 U	2.8	0.75 J
Pier25-12	GW-020106-PIER25-12-002	2/1/2006	64.07	46	4	7.1	0.87
Pier25-12	GW-020106-PIER25-12-009	2/1/2006	294	100	24	-	1 U
Pier25-12	GW-020106-PIER25-12-008	2/1/2006	303	130	120	-	3
Pier25-12	GW-020106-PIER25-12-005	2/1/2006	310	130	120	-	3
Pier25-12	GW-020106-PIER25-12-006	2/1/2006	-	100	24	-	1 U
Pier25-12	GW-020106-PIER25-12-004	2/1/2006	2.0 U	0.50 U	0.50 U	0.50 U	0.50 U
Pier25-13	GW-020206-PIER25-13-006	2/2/2006	85.36	45	24	5.4	0.87
Pier25-13	GW-020206-PIER25-13-004	2/2/2006	609	370	68	-	5 U
Pier25-13	GW-020206-PIER25-13-003	2/2/2006	1568	540	88	-	5 U
Pier25-13	GW-020206-PIER25-13-008	2/2/2006	4868	20 U	20 U	-	20 U
Pier25-13	GW-020206-PIER25-13-001	2/2/2006	-	370	68	-	5 U
Pier25-13	GW-020206-PIER25-13-007	2/2/2006	-	20 U	20 U	-	20 U
Pier25-13	GW-020306-PIER25-13-011	2/3/2006	92.62	0.11 J	0.34 J	0.070 J	0.50 U
Pier25-13	GW-020306-PIER25-13-012	2/3/2006	543.4	1.0 U	1.0 U	0.14 J	2.4
Pier25-13	GW-020306-PIER25-13-014	2/3/2006	979	5 U	20 U	-	20 U
Pier25-13	GW-020306-PIER25-13-010	2/3/2006	1166	5 U	5 U	5 U	5 U
Pier25-13	GW-020306-PIER25-13-013	2/3/2006	1932	5 U	5 U	-	5 U
Pier25-13	GW-020306-PIER25-13-009	2/3/2006	5293	20 U	20 U	-	20 U
Pier25-14	GW-111605-PIER25-14-005	11/16/2005 (Duplicate)	4.1	1.2 J	2.9	0.16 U	0.23 U
Pier25-14	GW-111605-PIER25-14-006	11/16/2005	4.2	1.1 J	3.1	0.16 U	0.23 U
Pier25-14	GW-111605-PIER25-14-004	11/16/2005	6.9	2	4.9	0.16 U	0.23 U
Pier25-14	GW-111605-PIER25-14-003	11/16/2005	16.5	3.0 J	12	1.5 J	0.23 U
Pier25-14	GW-111605-PIER25-14-007	11/16/2005	26.5	8.3	17	1.2 J	0.23 U
Pier25-14	GW-111605-PIER25-14-001	11/16/2005	29.72	5.8	23	0.92 J	0.23 U
Pier25-14	GW-111605-PIER25-14-002	11/16/2005	35.2	8.9	22	1.0 J	0.23 U
Pier25-15	GW-113005-PIER25-15-004	11/30/2005	64.8	0.15 U	29	34	1.8 J
Pier25-15	GW-113005-PIER25-15-002	11/30/2005	284.6	3.8 J	110	160	7.8
Pier25-15	GW-113005-PIER25-15-003	11/30/2005	346.4	12	200	120	11
Pier25-15	GW-113005-PIER25-15-001	11/30/2005	53658.67	0.67 J	19	53000	130
Pier25-15	GW-120105-PIER25-15-005	12/1/2005	747.72	1.16 U	1.28 U	88	657
Pier25-15	GW-120105-PIER25-15-006	12/1/2005	86040.6 J	0.15 U	0.60 J	41000	44000
Pier25-15	GW-122205-PIER25-15-001	12/22/2005	1.4	0.15 U	0.16 U	1.4 J	0.23 U
Pier25-15	GW-122205-PIER25-15-002	12/22/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-15	GW-122205-PIER25-15-003	12/22/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-16	GW-112105-PIER25-16-001	11/21/2005	1966.4	0.15 U	11	1300	530
Pier25-16	GW-112205-PIER25-16-010	11/22/2005	0.512	0.015 U	0.02 U	0.388 J	0.124
Pier25-16	GW-112205-PIER25-16-002	11/22/2005	2.8	0.15 U	0.16 U	2.8	0.23 U
Pier25-16	GW-112205-PIER25-16-011	11/22/2005	3.246	0.015 U	0.396 J	2.01	0.84
Pier25-16	GW-112205-PIER25-16-004	11/22/2005 (Duplicate)	4.14	0.15 U	0.24 J	3.9	0.23 U
Pier25-16	GW-112205-PIER25-16-003	11/22/2005	14.78	0.15 U	0.78 J	14	0.23 U
Pier25-16	GW-112205-PIER25-16-009	11/22/2005	166.716	0.015 U	1.21	107	56.9
Pier25-16	GW-112205-PIER25-16-008	11/22/2005	528.28	0.015 U	0.02 U	270	251
Pier25-16	GW-112205-PIER25-16-006	11/22/2005	44234	6 U	8 U	25000	18700
Pier25-16	GW-112205-PIER25-16-007	11/22/2005	45241	6 U	8 U	25600	19100
Pier25-16	GW-112205-PIER25-16-005	11/22/2005	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
Pier25-16	GW-121205-PIER25-16-003	12/12/2005	31591	0.15 U	0.16 U	2400	29000
Pier25-16	GW-121205-PIER25-16-001	12/12/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-16	GW-121205-PIER25-16-002	12/12/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-17	GW-111705-PIER25-17-004	11/17/2005	1.7	0.15 U	1.7 J	0.16 U	0.23 U
Pier25-17	GW-111705-PIER25-17-006	11/17/2005	410	0.15 U	0.16 U	0.16 U	410
Pier25-17	GW-111705-PIER25-17-007	11/17/2005	77285.9	0.15 U	5.9	57000	18000
Pier25-17	GW-111705-PIER25-17-001	11/17/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-17	GW-111705-PIER25-17-002	11/17/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-17	GW-111705-PIER25-17-003	11/17/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-17	GW-111705-PIER25-17-005	11/17/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-17	GW-112105-PIER25-17-008	11/21/2005	2.4	0.15 U	0.16 U	2.4	0.23 U

TABLE 4.3  
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Pier25-17	GW-121205-Pier25-17-003	12/12/2005	264.4	0.15 U	0.16 U	180	79
Pier25-17	GW-121205-PIER25-17-001	12/12/2005	31814.5	0.15 U	2.3 J	14000	17000
Pier25-17	GW-121205-PIER25-17-002	12/12/2005	33890.9	0.15 U	2.3 J	15000	18000
Pier25-18	GW-120805-PIER25-18-002	12/8/2005	2.5	0.015 U	0.02 U	1.26	1.24
Pier25-18	GW-120805-PIER25-18-003	12/8/2005	(Duplicate) 4.8665	0.056 J	0.0825 J	2.74	1.9
Pier25-18	GW-120805-Pier25-18-004	12/8/2005	129.0105	0.105 J	0.276 J	52.7	74.5
Pier25-18	GW-120805-PIER25-18-001	12/8/2005	458.005	0.098 J	0.557	286	163
Pier25-18	GW-120905-PIER25-18-009	12/9/2005	189.75	0.15 J	0.16 U	130	55
Pier25-18	GW-120905-PIER25-18-008	12/9/2005	3279.07	0.15 U	0.67 J	1900	1300
Pier25-18	GW-120905-PIER25-18-007	12/9/2005	72020.7	0.15 U	2.8 J	53000	17000
Pier25-18	GW-120805-PIER25-18-005	12/9/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-18	GW-120905-PIER25-18-013	12/9/2005	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-18	GW-120905-Pier25-18-014	12/9/2005	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-18	GW-120905-PIER25-18-011	12/9/2005	105.56 J	0.15 U	0.16 U	64	36
Pier25-18	GW-120905-PIER25-18-010	12/9/2005	13.65 J	0.15 U	0.16 U	9.2	4.1 J
Pier25-18	GW-120905-Pier25-18-006	12/9/2005	39443.6 J	0.15 U	1.3 J	14000	25000
Pier25-18	GW-120905-Pier25-18-012	12/9/2005	7.5 J	0.15 U	0.16 U	5	2.5 J
Pier25-19	GW-120705-Pier25-19-002	12/7/2005	1.1115	0.0605 J	0.051 J	0.727	0.273
Pier25-19	GW-120705-PIER25-19-003	12/7/2005	107.55	0.015 U	0.02 U	2.55	105
Pier25-19	GW-120705-PIER25-19-004	12/7/2005	3296.56	0.3 U	0.4 U	40.2	3250
Pier25-19	GW-120705-PIER25-19-009	12/7/2005	4577.7	0.3 U	47.6	2220	2250
Pier25-19	GW-120705-PIER25-19-007	12/7/2005	7774.8	0.3 U	0.4 U	4060	3580
Pier25-19	GW-120705-PIER25-19-008	12/7/2005	141016.8	6 U	828 J	66200	72300
Pier25-19	GW-120705-PIER25-19-006	12/7/2005	193910	6 U	8 U	121000	69900
Pier25-19	GW-120705-PIER25-19-001	12/7/2005	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-19	GW-120805-PIER25-19-010	12/8/2005	69	0.15 U	0.16 U	0.16 U	69
Pier25-19	GW-120805-PIER25-19-012	12/8/2005	6641.7 J	0.15 U	0.16 U	36	6600
Pier25-19	GW-120805-PIER25-19-011	12/8/2005	77.9 J	0.15 U	0.16 U	0.16 U	76
Pier25-2	GW-071405-PIER25-2-001	7/14/2005	2.266	0.0578 U	1.85	0.416 J	0.0604 U
Pier25-2	GW-071405-PIER25-2-003	7/14/2005	3.157	0.0578 U	2.34	0.817 J	0.0604 U
Pier25-2	GW-071405-PIER25-2-002	7/14/2005	3.344	0.0578 U	2.63	0.714 J	0.0604 U
Pier25-2	GW-071405-PIER25-2-004	7/14/2005	4.215	0.105 J	3.04	1.07	0.0604 U
Pier25-2	GW-071505-PIER25-2-005	7/15/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-2	GW-071505-PIER25-2-006	7/15/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-2	GW-071505-PIER25-2-007	7/15/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-2	GW-071805-PIER25-2-009	7/18/2005	0.41	0.15 U	0.41 J	0.16 U	0.23 U
Pier25-2	GW-071805-PIER25-2-008	7/18/2005	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-20	GW-120605-PIER25-20-010	12/6/2005	633.8	5.7	190	190	240
Pier25-20	GW-120605-PIER25-20-001	12/6/2005	819.8	0.15 U	0.16 U	20	790
Pier25-20	GW-120605-PIER25-20-002	12/6/2005	861.8	0.15 U	0.16 U	21	830
Pier25-20	GW-120605-PIER25-20-009	12/6/2005	15494.4	11	270	170	15000
Pier25-20	GW-120605-PIER25-20-008	12/6/2005	85020	980	52000	31000	230
Pier25-20	GW-120605-PIER25-20-007	12/6/2005	112884	2600	97000	11000	1400
Pier25-20	GW-120605-PIER25-20-006	12/6/2005	142592.54	0.54 J	62	31000	110000
Pier25-20	GW-120605-PIER25-20-003	12/6/2005	(Duplicate) 181906.2	0.15 U	6.2	110000	67000
Pier25-20	GW-120605-PIER25-20-005	12/6/2005	312421.08	1.4 J	19	110000	200000
Pier25-20	GW-120605-PIER25-20-011	12/6/2005	0.57 J	0.57 J	0.16 U	0.16 U	0.23 U
Pier25-20	GW-120605-Pier25-20-012	12/6/2005	15 J	0.15 U	0.16 U	0.16 U	15
Pier25-20	GW-120605-Pier25-20-004	12/6/2005	228600 J	0.15 UJ	0.16 U	150000	72000
Pier25-21	GW-010306-PIER25-21-003	1/3/2006	0.201	0.015 U	0.02 U	0.054 J	0.147
Pier25-21	GW-010306-PIER25-21-004	1/3/2006	(Duplicate) 0.2335	0.015 U	0.02 U	0.0605 J	0.173
Pier25-21	GW-010306-PIER25-21-005	1/3/2006	0.351	0.015 U	0.02 U	0.11 J	0.241
Pier25-21	GW-010306-PIER25-21-002	1/3/2006	2.9085	0.0575 J	0.074 J	0.757	2.02
Pier25-21	GW-010306-PIER25-21-001	1/3/2006	241.052	0.015 U	0.782	4.16	227
Pier25-21	GW-010406-PIER25-21-006	1/4/2006	0.086	0.015 U	0.02 U	0.015 U	0.025 U
Pier25-21	GW-010406-PIER25-21-007	1/4/2006	21.553	0.015 U	0.02 U	0.015 U	0.025 U
Pier25-21	GW-010406-PIER25-21-008	1/4/2006	19359	3 U	4 U	2370	14200
Pier25-21	GW-010406-PIER25-21-010	1/4/2006	41919.9	3 U	4 U	8310	33500
Pier25-21	GW-010406-PIER25-21-009	1/4/2006	71759	3 U	4 U	18900	52300
Pier25-22	GW-011706-PIER25-22-004	1/17/2006	402.948	0.175 J	1.59	99.7	300
Pier25-22	GW-011706-PIER25-22-003	1/17/2006	526	14.4 U	12.6 U	30 J	496
Pier25-22	GW-011706-PIER25-22-002	1/17/2006	1244.6	14.4 U	12.6 U	64.6 J	1180
Pier25-22	GW-011706-PIER25-22-001	1/17/2006	36900	144 U	126 U	154 U	36900
Pier25-22	GW-011806-PIER25-22-009	1/18/2006	0.48	0.066 U	0.055 U	0.062 U	0.48 J
Pier25-22	GW-011806-PIER25-22-010	1/18/2006	2.5	0.15 U	0.16 U	1.1 J	1.4 J
Pier25-22	GW-011806-Pier25-22-011	1/18/2006	5	0.15 U	0.16 U	5	0.23 U
Pier25-22	GW-011806-PIER25-22-012	1/18/2006	20.8	0.15 U	0.16 U	18	2.8 J
Pier25-22	GW-011806-PIER25-22-007	1/18/2006	(Duplicate) 610	0.66 U	0.55 U	330	280
Pier25-22	GW-011806-PIER25-22-008	1/18/2006	650	0.66 U	0.55 U	350	300
Pier25-22	GW-011806-PIER25-22-005	1/18/2006	2460.6	3.3 U	2.8 U	650	1800
Pier25-22	GW-011806-PIER25-22-006	1/18/2006	2900	3.3 U	2.8 U	1200	1700

TABLE 4.3

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Pier25-22	GW-011806-PIER25-22-013	1/18/2006	34420	0.15 U	0.16 U	22000	12000
Pier25-23	GW-011106-PIER25-23-001	1/11/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-23	GW-011106-PIER25-23-002	1/11/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-23	GW-011106-PIER25-23-003	1/11/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-23	GW-011106-PIER25-23-004	1/11/2006	(Duplicate) 0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-23	GW-011106-PIER25-23-005	1/11/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-23	GW-011106-PIER25-23-006	1/11/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
Pier25-23	GW-011106-PIER25-23-007	1/11/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
Pier25-23	GW-011106-PIER25-23-008	1/11/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
Pier25-23	GW-011106-PIER25-23-009	1/11/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
Pier25-23	GW-011106-PIER25-23-010	1/11/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 UJ
Pier25-23	GW-011206-PIER25-23-012	1/12/2006	2.53	0.139 U	0.186 J	1.65	0.253 J
Pier25-23	GW-011206-PIER25-23-013	1/12/2006	2.562	0.139 U	0.162 J	1.66	0.222 U
Pier25-23	GW-011206-PIER25-23-011	1/12/2006	9.896	0.306 J	3.13	4.78	1.68
Pier25-24	GW-011206-PIER25-24-003	1/12/2006	0.21	0.139 U	0.21 J	0.142 U	0.222 U
Pier25-24	GW-011206-PIER25-24-004	1/12/2006	0.692	0.139 U	0.125 J	0.567 J	0.222 U
Pier25-24	GW-011206-PIER25-24-006	1/12/2006	(Duplicate) 4484.8	13.9 U	9.68 U	715	3700
Pier25-24	GW-011206-PIER25-24-005	1/12/2006	5630	13.9 U	9.68 U	120	5510
Pier25-24	GW-011206-PIER25-24-007	1/12/2006	15803	69.3 U	48.4 U	4170	11500
Pier25-24	GW-011206-PIER25-24-001	1/12/2006	0.229 U	0.139 U	0.0968 U	0.142 U	0.222 U
Pier25-24	GW-011206-PIER25-24-002	1/12/2006	0.229 U	0.139 U	0.0968 U	0.142 U	0.222 U
Pier25-25	GW-012006-PIER25-25-001	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-002	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-003	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-004	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-005	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-006	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-007	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-008	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-009	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-25	GW-012006-PIER25-25-010	1/20/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-26	GW-012306-PIER25-26-006	1/23/2006	0.156	0.066 U	0.082 J	0.074 J	0.14 U
Pier25-26	GW-012306-PIER25-26-002	1/23/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-26	GW-012306-PIER25-26-003	1/23/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-26	GW-012306-PIER25-26-004	1/23/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-26	GW-012306-PIER25-26-001	1/23/2006	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
Pier25-26	GW-012306-PIER25-26-005	1/23/2006	0.62 U	0.13 U	0.11 U	0.12 U	0.28 U
Pier25-26	GW-012406-PIER25-26-007	1/24/2006	456	330 D1	24	-	1 U
Pier25-26	GW-012406-PIER25-26-010	1/24/2006	636	400	33	-	1 U
Pier25-26	GW-012406-PIER25-26-011	1/24/2006	637	400	33	-	1 U
Pier25-26	GW-012406-PIER25-26-008	1/24/2006	-	320 D3	18	-	1 U
Pier25-27	GW-011906-PIER25-27-003	1/19/2006	(Duplicate) 2.2	0.15 U	0.16 U	0.16 U	0.23 U
Pier25-27	GW-011906-PIER25-27-001	1/19/2006	5.7	0.15 U	0.16 U	3.5 J	0.23 U
Pier25-27	GW-011906-PIER25-27-002	1/19/2006	8.9	0.15 U	0.16 U	5.6	1.2 J
Pier25-27	GW-011906-PIER25-27-011	1/19/2006	516.8	0.66 U	0.55 U	350	160
Pier25-27	GW-011906-PIER25-27-008	1/19/2006	1115.1	1.3 U	1.1 U	740	370
Pier25-27	GW-011906-PIER25-27-009	1/19/2006	37430	66 U	55 U	25000	12000
Pier25-27	GW-011906-PIER25-27-010	1/19/2006	65670	66 U	55 U	29000	36000
Pier25-27	GW-011906-PIER25-27-004	1/19/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-27	GW-011906-PIER25-27-005	1/19/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-27	GW-011906-PIER25-27-006	1/19/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-27	GW-011906-PIER25-27-007	1/19/2006	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
Pier25-28	GW-012406-PIER25-28-004	1/24/2006	348.7	120	35	27	5 U
Pier25-28	GW-012406-PIER25-28-001	1/24/2006	406	330	24	-	1 U
Pier25-28	GW-012406-PIER25-28-002	1/24/2006	1961	320	18	-	1 U
Pier25-28	GW-012506-PIER25-28-005	1/25/2006	71	38	25	-	1 U
Pier25-29	GW-020606-PIER25-29-004	2/6/2006	3.4	5 U	3.4 J	5 U	5 U
Pier25-29	GW-020606-PIER25-29-005	2/6/2006	6.74	0.45 J	2	0.43 J	0.50 U
Pier25-29	GW-020606-PIER25-29-006	2/6/2006	11.28	0.50 U	0.50 U	10	0.52
Pier25-29	GW-020606-PIER25-29-007	2/6/2006	27.21	0.50 U	0.50 U	0.50 U	0.50 U
Pier25-29	GW-020606-PIER25-29-001	2/6/2006	54	4	4	-	1 U
Pier25-29	GW-020606-PIER25-29-003	2/6/2006	3.7 J	5 U	3.7 J	5 U	5 U
Pier25-29	GW-020706-PIER25-29-012	2/7/2006	20.65	0.17 J	1.7 U	0.55	2
Pier25-29	GW-020706-PIER25-29-008	2/7/2006	34.66	0.50 U	0.50 U	0.37 J	0.50 U
Pier25-29	GW-020706-PIER25-29-011	2/7/2006	91.1	5 U	5 U	3.6 J	5.5
Pier25-29	GW-020706-PIER25-29-010	2/7/2006	371	2	10	-	13
Pier25-29	GW-020706-PIER25-29-009	2/7/2006	-	2	10	-	13
Pier25-30	GW-012606-PIER25-30-001	1/26/2006	40	27	6	-	1 U
Pier25-30	GW-012606-PIER25-30-002	1/26/2006	-	20	5	-	1 U
Pier25-30	GW-012706-PIER25-30-006	1/27/2006	12.9	9.3	5 U	5 U	5 U
Pier25-30	GW-012706-PIER25-30-007	1/27/2006	21.72	19	2.1	0.16 J	0.50 U



TABLE 4.3

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Pier25-30	GW-012706-PIER25-30-004	1/27/2006	38	20	5	-	1 U
Pier25-30	GW-012706-PIER25-30-003	1/27/2006	40	27	6	-	1 U
Pier25-30	GW-012706-PIER25-30-009	1/27/2006	204	140	27	-	1 U
Pier25-30	GW-012706-PIER25-30-008	1/27/2006	218	130	44	-	1 U
Pier25-30	GW-012706-PIER25-30-010	1/27/2006	-	95	31	-	1 U
Pier25-31	GW-051006-PIER25-31-LH-002	5/10/2006	6.4	5 U	5 U	5 U	6.4
Pier25-31	GW-051006-PIER25-31-LH-005	5/10/2006	10.6	2 U	2 U	2.9	5.6
Pier25-31	GW-051006-PIER25-31-LH-004	5/10/2006	23.3	5 U	5.0 J	10	5.2
Pier25-31	GW-051006-PIER25-31-LH-003	5/10/2006	26.3	2.8 J	13	4.3 J	6.2
Pier25-31	GW-051106-PIER25-31-LH-009	5/11/2006	47 J	5 U	5 U	6	28
Pier25-32	GW-040406-PIER25-32-002	4/4/2006	937.66	0.60 J	10	90	820
Pier25-32	GW-040406-PIER25-32-003	4/4/2006	8800	25 U	25 U	25 U	8800
Pier25-32	GW-040406-PIER25-32-001	4/4/2006	32706	160	4000	20000	4600
Pier25-32	GW-040506-PIER25-32-004	4/5/2006	4000	250 U	250 U	250 U	4000
Pier25-32	GW-040506-PIER25-32-005	4/5/2006	4800	250 U	250 U	250 U	4800
Pier25-32	GW-040606-PIER25-32-006	4/6/2006	11843	25 U	25 U	2500	9200
Pier25-32	GW-040706-PIER25-32-008	4/7/2006	19400 J	100 U	100 U	1300	18000
Pier25-33	GW-050806-PIER25-33-BS-001	5/8/2006	14	5 U	5 U	5 U	14
Pier25-33	GW-050806-PIER25-33-BS-002	5/8/2006	79	5 U	5 U	5 U	79
Pier25-33	GW-050806-PIER25-33-BS-003	5/8/2006	340	5 U	5 U	160	180
Pier25-33	GW-050806-PIER25-33-BS-004	5/8/2006	1373	5 U	5 U	1100	230
Pier25-33	GW-050906-PIER25-33-LH-009	5/9/2006	10	5 U	5 U	5 U	10
Pier25-33	GW-050906-PIER25-33-LH-008	5/9/2006	61	25 U	25 U	33	28
Pier25-33	GW-050906-PIER25-33-LH-007	5/9/2006	293	5 U	5 U	160	120
Pier25-33	GW-050906-PIER25-33-LH-006	5/9/2006	791	25 U	25 U	510	230
Pier25-33	GW-050906-PIER25-33-LH-005	5/9/2006	2100	25 U	25 U	1500	480
Pier25-6	GW-020406-PIER25-6-005	2/4/2006	6	1 U	1 U	-	1 U
Pier25-6	GW-020406-PIER25-6-004	2/4/2006	22.96	1.5	4.4	16	0.50 U
Pier25-6	GW-020406-PIER25-6-003	2/4/2006	27.8	24	3.8 J	5 U	5 U
Pier25-6	GW-020406-PIER25-6-002	2/4/2006	38	30	3	-	1 U
Pier25-9	GW-102505-PIER25-9-003	10/25/2005	4.5	0.15 U	0.16 U	4.5	0.23 U
Pier25-9	GW-102505-PIER25-9-007	10/25/2005	32.24	0.34 J	1.1	9.9	19
Pier25-9	GW-102505-PIER25-9-001	10/25/2005	35.6	0.14 J	0.26 J	17	16
Pier25-9	GW-102505-PIER25-9-002	10/25/2005	35.78	0.16 J	0.32 J	17	16
Pier25-9	GW-102505-PIER25-9-008	10/25/2005	44.92	0.15 U	1.6	28	11
Pier25-9	GW-102505-PIER25-9-009	10/25/2005	45.14	0.15 U	1.6	28	11
Pier25-9	GW-102505-PIER25-9-006	10/25/2005	67.52	0.23 J	0.79 J	22	43
Pier25-9	GW-102505-PIER25-9-004	10/25/2005	176.8	3.3	24	120	24
Pier25-9	GW-102505-PIER25-9-005	10/25/2005	216.67	5.1	20	150	31
Pier25-9	GW-102605-PIER25-9-012	10/26/2005	1.9	0.75 U	0.80 U	1.9 J	1.15 U
Pier25-9	GW-102605-PIER25-9-011	10/26/2005	19.6	0.75 U	1.4 J	15	1.15 U
Pier25-9	GW-102605-PIER25-9-010	10/26/2005	23.75	2	2.2	17	0.51 J
PS2-003	GW-032107-PS2-003-001	3/21/2007	5 U	5 U	5 U	5 U	5 U
PS2-004	GW-032107-PS2-004-001	3/21/2007	270	5 U	5 U	110	160
PS2-GP3A	PS2-GP3A-13	3/22/2007	6.44	6.44	5 U	-	-
PS2-GP3A	PS2-GP3A-10	3/22/2007	79	63.8	15.2	-	-
PS2-GP3A	PS2-GP3A-22	3/22/2007	420	244	176	-	-
PS2-GP3A	PS2-GP3A-28	3/22/2007	1498	691	807	-	-
PS2-GP3A	PS2-GP3A-31	3/22/2007	51810	6610	45200	-	-
PS2-GP3A	PS2-GP3A-7	3/22/2007	69410	4810	64600	-	-
PS2-GP3A	PS2-GP3A-19	3/22/2007	7.07 J	4.03 J	3.04 J	-	-
PS2-GP3A	PS2-GP3A-16	3/22/2007	71.7 J	50.1 J	21.6 J	-	-
PS2-GP3A	PS2-GP3A-34	3/22/2007	75640 J	4940 J	70700 J	-	-
PS2-GP3A	PS2-GP3A-25	3/22/2007	92.3 J	51.2 J	41.1 J	-	-
PS2-GP5A	PS2-GP5A-22	3/22/2007	403	144	259	-	-
PS2-GP5A	PS2-GP5A-13	3/22/2007	42730	3830	38900	-	-
PS2-GP5A	PS2-GP5A-33	3/22/2007	96.2 J	41.9 J	54.3 J	-	-
PS2-GP7A	PS2-GP7A-13	3/22/2007	85.1	38	47.1	-	-
PS2-GP7A	PS2-GP7A-33	3/22/2007	49670	5770	43900	-	-
PS2-GP7A	PS2-GP7A-22	3/22/2007	60310	5810	54500	-	-
PS3-001	GW-072707-DR-PS3-DUP-001	7/27/2007	0.298	0.0715 J	0.157 J	0.015 U	0.025 U
PS3-001	GW-072707-DR-PS3-001-001	7/27/2007	7.9785	2.95	4.58	0.208 J	0.0955 J
PS3-002	GW-072707-DR-PS3-002-001	7/27/2007	0.121 J	0.0585 J	0.0625 J	0.015 UJ	0.025 UJ
PS3-003	GW-072707-DR-PS3-003-001	7/27/2007	0.328	0.098 J	0.23 J	0.015 U	0.025 U
PS3-004	GW-072707-DR-PS3-004-001	7/27/2007	0.0865 J	0.015 U	0.0865 J	0.015 UJ	0.025 UJ
PS3-005	GW-072707-DR-PS3-005-001	7/27/2007	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
PS3-GP2A	PS3-GP2A-21	7/5/2007	7.6	0.15 U	7.6	-	-
PS3-GP2A	PS3-GP2A-13	7/5/2007	41.7	26.9	14.8	-	-
PS3-GP2A	PS3-GP2A-17	7/5/2007	15.8 J	12	3.8 J	-	-
PS3-GP2A	PS3-GP2A-24	7/5/2007	23.9 J	3.9 J	20	-	-
PS3-GP2A-1	PS3-GP2A-1-27	6/28/2007	36.8	24.1	12.7	-	-

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
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PS3-GP2A-1	PS3-GP2A-1-24	6/28/2007	3091	471	2620	-	-
PS3-GP2A-1	PS3-GP2A-1-14	6/28/2007	25020 J	9420 J	15600 J	-	-
PS3-GP2A-1	PS3-GP2A-1-19	6/28/2007	99200 J	35700 J	63500 J	-	-
PS3-GP3A	PS3-GP3A-17	6/29/2007	80433	41000	39000	240	120
PS3-GP3A	PS3-GP3A-21	6/29/2007	86383	44000	42000	210	110
PS3-GP3A	PS3-GP3A-24	6/29/2007	96367 J	12000	82000	1700	47 J
PS3-GP3A-1	PS3-GP3A-1-13	6/29/2007	510	230	280	-	-
PS3-GP3A-1	PS3-GP3A-1-15	6/29/2007	3400	200	3200	-	-
PS3-GP4A	PS3-GP4A-13	7/5/2007	24753	9100	15000	580	15
PS3-GP4A	PS3-GP4A-24	7/5/2007	34300	34300	-	-	-
PS3-GP4A	PS3-GP4A-17	7/5/2007	168000 J	78000 J	90000 J	-	-
PS3-GP4A	PS3-GP4A-21	7/5/2007	59900 J	7900 J	52000 J	-	-
PS3-GP5A	PS3-GP5A-13	6/29/2007	1510	1510	-	-	-
PS3-GP5A	PS3-GP5A-21	6/29/2007	6477.34	1650	4700 J	115	3.02 U
PS3-GP5A	PS3-GP5A-17	6/29/2007	52620	20300	31500	620 J	200 J
PS3-IP	GW-072707-DR-PS3-IP-001	7/27/2007	227627 J	10100 J	935 J	47000 J	169000 J
PS4-001	GW-022208-PS4-001-001	2/22/2008	263.4	59	96	72	0.23 U
PS4-002	GW-022208-PS4-FD-001	2/22/2008	200	1.5 U	1.6 U	1.6 U	2.3 U
PS4-002	GW-022208-PS4-002-001	2/22/2008	220	1.5 U	1.6 U	1.6 U	2.3 U
PS4-003	GW-022208-PS4-003-001	2/22/2008	237.9	1.5 U	1.6 U	9.1 J	220
PS4-004	GW-022208-PS4-004-001	2/22/2008	117.2	17	19	7.2 J	0.23 U
PS4-005	GW-022208-PS4-005-001	2/22/2008	200	1.5 U	1.6 U	1.6 U	2.3 U
PS4-GP1A	PS4-GP1A-35	12/10/2007	7.461	3.47	3.12	0.287 J	0.502
PS4-GP1A	PS4-GP1A-25	12/10/2007	21.37	8.32	10	1.28	1.77
PS4-GP1A	PS4-GP1A-20	12/10/2007	38.9285	19.6	16.1	1.09	2.05
PS4-GP1A	PS4-GP1A-40	12/10/2007	128.5555	38.4	60.1	8.42	21.4
PS4-GP1A	PS4-GP1A-15	12/10/2007	289.56	148	136	2.92 J	2.64 J
PS4-GP1A	PS4-GP1A-30	12/10/2007	628.933	132	345	55	95.7
PS4-GP1A	PS4-GP1A-50	12/10/2007	1360	870	490	-	-
PS4-GP1A	PS4-GP1A-45	12/10/2007	3400	1600	1800	-	-
PS4-GP1A	PS4-GP1A-55	12/10/2007	25300	19000	6300	-	-
PS4-GP1A	PS4-GP1A-10	12/11/2007	2345.4	1200	1120	25.4 J	3.02 U
PS4-GP1A	PS4-GP1A-58	12/18/2007	925	840	85	-	-
PS4-GP2A	PS4-GP2A- 15	12/13/2007	4540	4540	-	-	-
PS4-GP2A	PS4-GP2A-50	12/14/2007	23.0225	12.4	8.71	1.28	0.388
PS4-GP2A	PS4-GP2A-45	12/14/2007	27.628	15.7	9.25	2	0.464
PS4-GP2A	PS4-GP2A-55	12/14/2007	164.6	83.8	73.4	6.35	1.05
PS4-GP2A	PS4-GP2A-25	12/14/2007	9400	9400	-	-	-
PS4-GP2A	PS4-GP2A-40	12/14/2007	3887.3 J	1350	2360	156	7.85
PS4-GP2A	PS4-GP2A-35	12/14/2007	5079.06 J	1610	3370	71	7.14
PS4-GP2A	PS4-GP2A-65	12/17/2007	16.054	10.8	4.97	0.284 J	0.025 U
PS4-GP2A	PS4-GP2A-60	12/17/2007	17.485	11.9	5.27	0.315 J	0.025 U
PS4-GP3A	PS4-GP3A-55	12/13/2007	21	21	0.16 U	-	-
PS4-GP3A	PS4-GP3A-15	12/13/2007	769.149	393	339	27.9	7.4
PS4-GP3A	PS4-GP3A-50	12/13/2007	2410	2100	310	-	-
PS4-GP3A	PS4-GP3A-45	12/13/2007	215 J	140	75 J	-	-
PS4-GP3A	PS4-GP3A-40	12/13/2007	415 J	340	75 J	-	-
PS4-GP4A	PS4-GP4A-30	12/11/2007	28	-	-	-	28
PS4-GP4A	PS4-GP4A-45	12/11/2007	87.4	-	83	-	4.4
PS4-GP4A	PS4-GP4A-25	12/11/2007	850	10 U	10 U	150	700
PS4-GP4A	PS4-GP4A-10	12/12/2007	24.5	17	7.5	-	-
PS4-GP4A	PS4-GP4A-20	12/12/2007	21 J	15	6.0 J	-	-
PS4-GP4A	PS4-GP4A-15	12/12/2007	6.5 J	6.5 J	0.16 UJ	-	-
PS4-GP5A	PS4-GP5A-35	12/12/2007	11.74	0.066 U	1.7	7.3	0.15 J
PS4-GP5A	PS4-GP5A-20	12/12/2007	280	-	130	-	150
PS4-GP5A	PS4-GP5A-25	12/12/2007	427.2	0.66 U	1.2 J	390	21
PS4-GP5A	PS4-GP5A-15	12/12/2007	8950	-	150	-	8800
PS4-GP5A	PS4-GP5A-45	12/12/2007	50780	66 U	910 J	32000	17000
PS4-GP5A	PS4-GP5A-55	12/12/2007	107000	130 U	21000 J	65000	17000
PS4-GP5A	PS4-GP5A-10	12/12/2007	434271	15000	180000	230000	7200
PS4-IP	GW-022508-PS4-IP-001	2/25/2008	2.8 U	0.15 U	0.16 U	0.16 U	0.23 U
PS5-001	GW-021209-CM-PS5-001-001	2/12/2009	14	1.5 U	1.6 U	1.6 U	2.3 U
PS5-001	GW-021209-CM-FD1-001	2/12/2009	112.6 Y	1.0 U	2.1	1.0 U	1.0 U
PS5-002R	GW-021209-CM-PS5-002R-001	2/12/2009	3.29	0.50 U	0.71 U	0.090 J	0.14 J
PS5-003	GW-021209-CM-PS5-003-001	2/12/2009	741.2	1.0 U	2	30	1.0 U
PS5-CMT1-P1	GW-021109-CMT1-P1	2/11/2009	40.1	1.0 U	1.0 U	15	17
PS5-CMT1-P2	GW-021009-CMT1-P2	2/10/2009	134.67	0.17 J	0.50 U	1.6	2.3
PS5-CMT1-P3	GW-021009-CMT1-P3	2/10/2009	813.6	1.0 U	1.2	3.6	2.3
PS5-CMT1-P6	GW-021309-CMT1-P6	2/13/2009	5.58	0.50 U	0.50 U	0.18 J	1.3
PS5-CMT1-P7	GW-021309-CMT1-P7	2/13/2009	5.65	0.50 U	0.50 U	0.19 J	1.4
PS5-CMT2-P1	GW-021109-CMT2-P1	2/11/2009	34	0.75 U	0.80 U	15	19

**TABLE 4.3**  
**SUMMARY OF VOCs**  
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PS5-CMT2-P4	GW-021309-CMT2-P4	2/13/2009	0.68	0.50 U	0.50 U	0.11 J	0.50 U
PS5-CMT2-P5	GW-021309-CMT2-P5	2/13/2009	1179	25 U	25 U	25 U	25 U
PS5-CMT2-P6	GW-021309-CMT2-P6	2/13/2009	102.21	1.3 U	1.3 U	1.3 U	1.3 U
PS5-CMT2-P7	GW-021309-CMT2-P7	2/13/2009	6.64	0.50 U	0.50 U	0.68	5.4
PS5-CMT3-P1	GW-021109-CMT3-P1	2/11/2009	18.77	0.50 U	0.50 U	8.5	9.9
PS5-CMT3-P2	GW-021109-CMT3-P2	2/11/2009	0.28	0.50 U	0.50 U	0.50 U	0.50 U
PS5-CMT3-P3	GW-021109-CMT3-P3	2/11/2009	5399 Y	1.0 U	1.0 U	1.0 U	1.0 U
PS5-CMT3-P4	GW-021309-CMT3-P4	2/13/2009	0.35	0.50 U	0.50 U	0.50 U	0.50 U
PS5-CMT3-P5	GW-021309-CMT3-P5	2/13/2009	942	10 U	10 U	10 U	10 U
PS5-CMT3-P6	GW-021309-CMT3-P6	2/13/2009	327	5.0 U	5.0 U	5.0 U	5.0 U
PS5-CMT3-P7	GW-021309-CMT3-P7	2/13/2009	41.73	0.50 U	0.50 U	0.50 U	0.12 J
PS5-CMT4-P1	GW-021109-CMT4-P1	2/11/2009	2249.1	0.15 U	0.16 U	0.16 U	0.23 U
PS5-CMT4-P2	GW-021109-CMT4-P2	2/11/2009	2670	50 U	50 U	50 U	50 U
PS5-CMT4-P3	GW-021109-CMT4-P3	2/11/2009	1370.6	1.0 U	1.0 U	1.0 U	1.0 U
PS5-CMT4-P4	GW-021209-CMT4-P4	2/12/2009	403	1.5 U	1.6 U	25	2.3 U
PS5-CMT4-P5	GW-021209-CMT4-P5	2/12/2009	771.9 YJ	1.0 UJ	2.5 J	37 J	1.0 UJ
PS5-IP	GW-021609-PS5-IP-P3	2/16/2009	435.9	80	32	300	16
PS5-IP	GW-021609-PS5-IP-P1	2/16/2009	9.2 U	1.5 U	1.6 U	1.6 U	2.3 U
PS5-IP	GW-021609-PS5-IP-P2	2/16/2009	9.2 U	1.5 U	1.6 U	1.6 U	2.3 U
PT-12	GW-061004-PT12-003	6/10/2004	1.7	0.15 U	0.16 U	0.16 U	0.23 U
PT-12	GW-061004-PT12-004	6/10/2004	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
PT-12A	GW-102405-PT-12A-002	10/24/2005 (Duplicate)	0.62	0.066 U	0.055 U	0.27 J	0.35 J
PT-12A	GW-102405-PT-12A-003	10/24/2005	1.405	0.066 U	0.055 U	0.21 J	1.1
PT-12A	GW-102405-PT-12A-001	10/24/2005	2.208	0.48 J	0.16 J	0.26 J	0.95 J
PT-12A	GW-102405-PT-12A-004	10/24/2005	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
PT-13	GW-060904-PT13-002	6/9/2004	2.4	2.4 J	1.60 U	1.60 U	2.30 U
PT-13	GW-060904-PT13-001	6/9/2004	8.3	3.2 J	1.60 U	1.60 U	2.30 U
PT-13A	GW-110905-PT-13A-001	11/9/2005	0.0739	0.0578 U	0.0739 J	0.0433 U	0.0604 U
PT-13A	GW-110905-PT-13A-002	11/9/2005	15.707	0.0578 U	2.31	10.3	2.56
PT-13A	GW-110905-PT-13A-003	11/9/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
PT-13A	GW-110905-PT-13A-004	11/9/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
PT-13A	GW-111005-PT-13A-008	11/10/2005	0.341	0.0578 U	0.0641 U	0.246 J	0.095 J
PT-13A	GW-111005-PT-13A-010	11/10/2005	6.8186	0.0578 U	0.739 J	4.4	1.47
PT-13A	GW-111005-PT-13A-006	11/10/2005	9.971	0.0578 U	0.0641 U	6.12	3.65
PT-13A	GW-111005-PT-13A-007	11/10/2005	11.6612	0.0578 U	0.506 J	6.99	3.92
PT-13A	GW-111005-PT-13A-009	11/10/2005	18.3632	0.0578 U	1.3	11.5	5.25
PT-13A	GW-111005-PT-13A-005	11/10/2005	137.838	0.289 U	0.321 U	98.5	35.6
PT-13A	GW-111105-PT-13A-011	11/11/2005	0.574	0.144 U	0.221 J	0.353 J	0.162 U
PT-15	GW-062904-PT15-019	6/29/2004	162360	11000	67000	64000	9400
PT-15A	GW-110905-PT-15A-001	11/9/2005	0.0505	0.0578 U	0.0641 U	0.0505 J	0.0604 U
PT-15A	GW-110905-FD-001	11/9/2005 (Duplicate)	1.19	0.0578 U	0.13 J	1.06	0.0604 U
PT-15A	GW-110905-PT-15A-FD-001	11/9/2005 (Duplicate)	6.65	0.0578 U	0.0641 U	2.76	3.89
PT-15A	GW-110905-PT-15A-002	11/9/2005	19.3	0.0578 U	0.0641 U	0.0433 U	19.3
PT-15A	GW-111005-PT-15A-005	11/10/2005	0.1538	0.0578 U	0.0651 J	0.0887 J	0.0604 U
PT-15A	GW-111005-PT-15A-003	11/10/2005 (Duplicate)	3.5886	0.0578 U	0.196 J	2.39	0.944 J
PT-15A	GW-111005-PT-15A-004	11/10/2005	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
PT-15A	GW-111105-PT-15A-006	11/11/2005	2.129	0.144 U	1.14	0.989 J	0.162 U
PT-15A	GW-111105-PT-15A-007	11/11/2005	2.571	0.144 U	1.73	0.841 J	0.162 U
PT-15A	GW-111405-PT-15A-008	11/14/2005	0.1474	0.0578 U	0.0641 U	0.0534 J	0.094 J
PT-15A	GW-111405-PT-15A-009	11/14/2005	0.712	0.0578 U	0.219 J	0.306 J	0.187 J
PT-15A	GW-111405-PT-15A-011	11/14/2005	0.765	0.0578 U	0.335 J	0.319 J	0.111 J
PT-15A	GW-111405-PT-15A-010	11/14/2005 (Duplicate)	1.293	0.0578 U	0.583 J	0.597 J	0.113 J
PT-15A	GW-111505-PT-15A-011	11/15/2005	20.21	0.0578 U	0.34 J	14.8	4.51
PT-15B	GW-122006-PT-15B-DR-002	12/20/2006	0.305	0.015 U	0.02 U	0.015 U	0.305
PT-15B	GW-122006-PT-15B-DR-001	12/20/2006	15.8	0.015 U	0.02 U	0.015 U	15.8
PT-15B	GW-122106-PT-15B-DR-003	12/21/2006	12.845 J	0.015 U	0.023 J	6.02	6.7
PT-15B	GW-122106-BI-PT-15B-004	12/21/2006	4.16 J	0.015 U	0.02 U	1.31	2.85
PT-16	GW-061104-PT16-006	6/11/2004	0.31	1.00 U	1.00 U	1.00 U	1.00 U
PT-16	GW-061104-PT16-005	6/11/2004	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
PT-17	GW-062404-PT17-018	6/24/2004	155100	5400	84000	29000	2700
PT-17	GW-062404-PT17-017	6/24/2004	179740	6100	100000	34000	3100
PT-17A	GW-020107-ILM-PT-17A-001	2/1/2007	86.8	43	10	19	5 U
PT-17A	GW-020107-ILM-PT-17A-002	2/2/2007	10.46	0.17 J	0.51	3	1.6
PT-18	GW-062204-PT18-016	6/22/2004	132500	5200	60000	26000	1300
PT-18	GW-062204-FD2	6/22/2004 (Duplicate)	165100	8300 J	82000 J	27000 J	1900 J
PT-18	GW-062204-PT18-015	6/22/2004	176100	7600 J	80000 J	32000 J	2000 J
PT-3	G-072503-VSP-PT3-003	7/25/2003 (Duplicate)	21.12	0.015 U	0.02 U	7.36	13.6
PT-3	G-072503-VSP-PT3-001	7/25/2003	50.999	0.015 U	0.02 U	2.68	47.9
PT-3	G-072503-VSP-PT3-002	7/25/2003	159.976	0.015 U	0.02 U	63.7	94.6
PT-3	G-072503-VSP-PT3-004	7/25/2003	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
PT-3	G-072503-VSP-PT3-005	7/25/2003	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U

TABLE 4.3

SUMMARY OF VOCs  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

PT-4	G-072203-VSP-PT4-002	7/22/2003	480.026	0.06 U	0.08 U	36.4	436
PT-4	G-072203-VSP-PT4-003	7/22/2003	3169.9	0.3 U	0.4 U	66.5	3060
PT-4	G-072203-VSP-PT4-001	7/22/2003	6948.638	0.06 U	0.538 J	970	5850
PT-4	G-072203-VSP-PT4-004	7/22/2003	548.227 J	0.03 U	0.04 U	156	380
PT-5	G-072503-VSP-PT5-002	7/25/2003	0.384	0.015 U	0.02 U	0.015 U	0.384
PT-5	G-072503-VSP-PT5-003	7/25/2003	0.5755	0.015 U	0.02 U	0.0855 J	0.49
PT-5	G-072503-VSP-PT5-004	7/25/2003 (Duplicate)	0.768	0.102 J	0.02 U	0.354 J	0.312
PT-5	G-072503-VSP-PT5-001	7/25/2003	0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
PT-7	G-072403-VSP-PT7-003	7/24/2003	141.851	0.015 U	0.02 U	2.64	139
PT-7	G-072403-VSP-PT7-002	7/24/2003 (Duplicate)	493.633	0.128 J	0.04 U	51.1	439
PT-7	G-072403-VSP-PT7-001	7/24/2003	510.649	0.125 J	0.04 U	53	454
PT-7	G-072403-VSP-PT7-005	7/24/2003	711.4	0.06 U	0.08 U	20.4	691
PT-7	G-072403-VSP-PT7-004	7/24/2003	3100	0.3 U	0.4 U	0.3 U	3100
PZ-2	PZ-2	7/1/2004	68600	400 U	28300	28400	11900
PZ-3	PZ-3	7/1/2004	3490.8	40.0 U	20.8 J	1020	2450
PZ-4	PZ-4	7/1/2004	76450	350 J	14000	54000	7000
PZ-8	PZ-8	7/1/2004	3276	370	2700	180	50 U
PZ-9	PZ-9	7/1/2004	368.2	4.5 J	0.55 U	140	220
PZ-SHI-1-75	GW-042706-TS-PZ-SHI-1-75	4/27/2006	9164	5 U	5 U	6600	2200
PZ-SHI-2-100	WG-082512-LP-PZ-SHI-2-100-292	8/25/2012	0.26	0.066 U	0.055 U	0.26 J	0.14 U
PZ-SHI-2-25	GW-071406-ZF-PZ-SHI-2-25	7/14/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
PZ-SHI-2-75	GW-071406-TR-PZ-SHI-2-75	7/14/2006	0.35 UJ	0.15 U	0.16 U	0.16 U	0.23 U
PZ-SHI-3-100	GW-070806-TR-PZ-SHI-3-100	7/8/2006	1.878	0.0706 J	0.672 J	1.05	0.0854 J
PZ-SHI-3-42	GW-070806-TR-PZ-SHI-3-42	7/8/2006	0.783	0.0578 U	0.299 J	0.484 J	0.0604 U
PZ-SHI-3-75	GW-070806-TR-PZ-SHI-3-75	7/8/2006	0.978	0.0578 U	0.427 J	0.551 J	0.0604 U
SP-1	GW-062306-LH-SP1-004	6/23/2006	50700	2100	17000	12000	1200
SP-1	GW-062306-LH-SP1-001	6/23/2006	149100	6100	79000	29000	2000
SP-1	GW-062606-LH-SP1-006	6/26/2006	152190	5200	78000	35000	2300
SP-1	GW-062706-LH-SP1-009	6/27/2006	128000	6400	70000	30000	4400
SP-1	GW-062706-DR-SP1-010	6/27/2006	217070	7400	140000 J	38000	5300
SP-1	GW-062806-DR-SP1-011	6/28/2006	175500	12000	86000	56000	13000
SP-2	GW-070706-DR-SP2-004	7/7/2006 (Duplicate)	0.6248	0.0648 J	0.0641 U	0.56 J	0.0604 U
SP-2	GW-070706-DR-SP2-003	7/7/2006	1.486	0.0578 U	0.106 J	1.38	0.0604 U
SP-2	GW-070706-DR-SP2-002	7/7/2006	12.578	0.0578 U	0.0641 U	0.878 J	11.7
SP-2	GW-070706-DR-SP2-001	7/7/2006	13	0.0578 U	0.0641 U	1	12
SP-2	GW-070706-DR-SP2-005	7/7/2006	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
SP-2	GW-071006-LH-SP2-008	7/10/2006	0.0774	0.0578 U	0.0641 U	0.0774 J	0.0604 U
SP-2	GW-071006-LH-SP2-006	7/10/2006	0.354	0.0578 U	0.161 J	0.193 J	0.0604 U
SP-2	GW-071006-LH-SP2-007	7/10/2006	0.761	0.0578 U	0.263 J	0.498 J	0.0604 U
SP-2	GW-071106-LH-SP2-010	7/11/2006	2.72	0.144 U	0.126 U	2.72	0.162 U
SP-2	GW-071106-LH-SP2-009	7/11/2006	10.7	0.288 U	0.252 U	10.7	0.324 U
SP-2	GW-071206-LH-SP2-012	7/12/2006	0.155	0.0578 U	0.0641 U	0.155 J	0.0604 U
SP-2	GW-071206-LH-SP2-011	7/12/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-2	GW-091306-JL-SP2-014	9/13/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091306-JL-SP2-015	9/13/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091306-JL-SP2-016	9/13/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091306-JL-SP2-017	9/13/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091306-JL-SP2-018	9/13/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091406-JL-SP2-019	9/14/2006	12973.7	5 U	5 U	950 J	12000
SP-2	GW-091406-JL-SP2-022	9/14/2006	10 J	5 U	5 UJ	5 UJ	10 J
SP-2	GW-091406-JL-SP2-020	9/14/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091406-JL-SP2-021	9/14/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091406-JL-SP2-023	9/14/2006	5 U	5 U	5 U	5 U	3 U
SP-2	GW-091806-JL-SP2-024	9/18/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-3	GW-061406-LH-SP3-001	6/14/2006	13800 J	250 U	140 J	3600	9900
SP-3	GW-061506-LH-SP3-004	6/15/2006	19430	170 J	140 J	3900	15000
SP-3	GW-092606-JC-SP3-013	9/26/2006	0.0691	0.0691 J	0.0641 U	0.0433 U	0.0604 U
SP-3	GW-092606-JC-SP3-012	9/26/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-3	GW-092706-JC-SP3-016	9/27/2006	16.7847	0.238 J	9.07	7.25	0.0604 U
SP-3	GW-092706-JC-SP3-014	9/27/2006	40798	57.8 U	5800	33100	519 J
SP-3	GW-092706-JC-SP3-015	9/27/2006	51493	57.8 U	64.1 U	50800	147 J
SP-3	GW-092806-ILM-SP3-018	9/28/2006	0.607	0.051 J	0.02 U	0.414 J	0.142
SP-3	GW-092806-JC-SP3-017	9/28/2006	0.162 J	0.015 U	0.02 UJ	0.162 J	0.025 U
SP-3	GW-092906-ILM-SP3-019	9/29/2006	0.788 J	0.015 UJ	0.329 J	0.235 J	0.224 J
SP-3	GW-093006-ILM-SP3-020	9/30/2006	0.2705 J	0.015 UJ	0.1 J	0.107 J	0.0635 J
SP-3	GW-100206-ILM-SP3-021	10/2/2006	0.1865 J	0.015 UJ	0.112 J	0.0745 J	0.025 UJ
SP-4	GW-062106-DR-SP4-009	6/21/2006	61845	7900	32000	15000	5200
SP-4	GW-062106-DR-SP4-006	6/21/2006	72560 J	9100	38000	14000	6600
SP-4	GW-062206-DR-SP4-010	6/22/2006	107500	3500	46000	23000	1000 U
SP-4	GW-062206-DR-SP4-011	6/22/2006	153200	6600	76000	26000	1600
SP-4	GW-092006-JL-SP4-012	9/20/2006	67.61	0.50 U	0.50 U	0.50 U	0.50 U

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

SP-4	GW-092106-JL-SP4-013	9/21/2006	23.91	0.20 U	0.3	2.8	19
SP-4	GW-092106-JL-SP4-014	9/21/2006	228	1.0 U	3.3	15	200
SP-4	GW-092106-JL-SP4-015	9/21/2006	648.7	4.0 U	4.7	14	630
SP-4	GW-092106-JL-SP4-016	9/21/2006	1.0 U	-	-	-	-
SP-4	GW-092206-JC-SP4-018	9/22/2006	1.0 U	-	-	-	-
SP-4	GW-092206-LH-SP4-017	9/22/2006	1.0 U	-	-	-	-
SP-4	GW-092506-JC-SP4-019	9/25/2006	193499	57.8 U	49100	124000	7120
SP-5	GW-060206-DR-SP5-001	6/2/2006	1.06	0.20 J	0.40 J	0.28 J	0.14 U
SP-5	GW-060906-LH-SP5-005	6/9/2006	16.4	0.15 U	0.16 U	6.5	4.2 J
SP-5	GW-073106-DR-SP5-012	7/31/2006	7.6	0.15 U	0.16 U	0.16 U	0.23 U
SP-5	GW-080106-DR-SP5-014	8/1/2006	17.91	0.91 J	0.16 U	0.16 U	0.23 U
SP-5	GW-080106-DR-SP5-013	8/1/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-5	GW-080106-DR-SP5-015	8/1/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-6	GW-060606-DR-SP6-005	6/6/2006	3.8	0.15 U	0.16 U	0.16 U	0.23 U
SP-6	GW-060606-DR-SP6-006	6/6/2006	4.9 J	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UJ
SP-6	GW-060606-DR-SP6-007	6/6/2006	5.00 UJ	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UJ
SP-6	GW-060606-LH-SP6-003	6/6/2006	5.00 UJ	5.00 UJ	5.00 UJ	5.00 UJ	5.00 UJ
SP-6	GW-060606-LH-SP6-004	6/6/2006	50.0 U	10.0 U	10.0 U	10.0 U	10.0 U
SP-6	GW-060706-DR-SP6-009	6/7/2006	1.84	1.00 U	1.00 U	1.00 U	1.00 U
SP-6	GW-060706-LH-SP6-011	6/7/2006	40	0.15 U	0.16 U	0.16 U	0.23 U
SP-6	GW-060706-LH-SP6-010	6/7/2006	2.46 J	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UJ
SP-6	GW-060706-DR-SP6-008	6/7/2006	50.0 U	10.0 U	10.0 U	10.0 U	10.0 U
SP-6	GW-060806-LH-SP6-012	6/8/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-7	GW-062806-LH-SP7-003	6/28/2006	152230 J	9700 J	66000 J	54000 J	9400 J
SP-7	GW-062906-LH-SP7-004	6/29/2006	153590	8100	68000	53000	11000
SP-7	GW-063006-LH-SP7-006	6/30/2006	157656.4	8900	84000	41000	11000
SP-7	GW-070506-DR-SP7-007	7/5/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-7	GW-070506-DR-SP7-008	7/5/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-7	GW-070506-DR-SP7-009	7/5/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-7	GW-070606-DR-SP7-010	7/6/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-8	GW-071306-LH-SP8-002	7/13/2006	1.963	0.0578 U	0.163 J	1.8	0.0604 U
SP-8	GW-071306-LH-SP8-003	7/13/2006	4.714	0.0578 U	0.164 J	4.55	0.0604 U
SP-8	GW-071306-LH-SP8-001	7/13/2006	0.137 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U
SP-8	GW-071406-LH-SP8-004	7/14/2006	2.356	0.0578 U	1.76	0.596 J	0.0604 U
SP-8	GW-071406-LH-SP8-006	7/14/2006	2.736	0.015 U	2.09	0.646	0.025 U
SP-8	GW-071406-LH-SP8-005	7/14/2006	3.2051	0.0841 J	2.3	0.821 J	0.0604 U
SP-8	GW-071706-TR-SP8-007	7/17/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-8	GW-071706-TR-SP8-008	7/17/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-8	GW-071706-TR-SP8-009	7/17/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-8	GW-071806-TR-SP8-010	7/18/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-8	GW-071806-TR-SP8-011	7/18/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
SP-8	GW-100306-ILM-SP8-013	10/3/2006	1.087	0.064 J	0.173 J	0.482 J	0.324
SP-8	GW-100306-ILM-SP8-012	10/3/2006	11.563	0.015 U	0.237 J	9.3	1.42
SP-8	GW-100406-ILM-SP8-014	10/4/2006	0.317	0.015 U	0.141 J	0.176 J	0.025 U
SP-8	GW-100406-ILM-SP8-016	10/4/2006	0.385	0.015 U	0.202 J	0.183 J	0.025 U
SP-8	GW-100406-ILM-SP8-015	10/4/2006	0.425	0.015 U	0.22 J	0.205 J	0.025 U
SP-8	GW-100506-ILM-SP8-019	10/5/2006	0.456	0.144 U	0.183 J	0.273 J	0.162 U
SP-8	GW-100506-ILM-SP8-017	10/5/2006	0.181 U	0.144 U	0.126 U	0.154 U	0.162 U
SP-8	GW-100506-ILM-SP8-018	10/5/2006	0.181 UJ	0.144 UJ	0.126 UJ	0.154 UJ	0.162 UJ
T1-100	T1-100	2/29/1996	3.58	0.12 J	0.77	2.2	0.11 J
T1-100	T1-100	5/7/1996	3.64	0.25 J	1.5	1.5	0.090 J
T1-100	T1-100	6/17/1996	1.25	0.50 U	0.67	0.58	0.50 U
T1-100	T1-100	6/17/1996	175990	250 U	17000	140000	13000
T1-100	T1-100	7/18/1996	135610	130 U	15000	100000	19000
T1-100	T1-100	8/14/1996	73390	1800	30000	36000	3600
T1-100	T1-100	8/14/1996	145660	250 U	170 J	46000	98000
T1-100	T1-100	9/23/1996	44890	2500	31000	9100	1700
T1-100	T1-100	11/7/1996	101846	13000	75000	12000	860
T1-100	T1-100	2/4/1997	12968 J	1500	6900 J	3100	1300
T1-100	T1-100	5/13/1997	5852 J	550	2800 J	1900	520
T1-100	T1-100	8/18/1997	7208	170	2900	3800	240
T1-100	T1-100	11/21/1997	11.51	1.2	7.7	2.1	0.41 J
T1-100	T1-100	2/11/1998	10.9	1.3	7.3	1.9	0.32 J
T1-100	T1-100	3/2/1998	100.67	45.1	9.82	0.850 J	1.00 U
T1-100	T1-100	4/1/1998	12622.5	2980	8060	501	1030
T1-100	T1-100	5/19/1998	18096	5660	12200	236	100 U
T1-100	T1-100	6/1/1998	3870.8	346	356	1690	1470
T1-100	T1-100	7/1/1998	150812	42.0 J	48.0 J	274	150000
T1-100	T1-100	8/11/1998	132680	100 J	158 J	200 U	132000
T1-100	T1-100	9/1/1998	97327	288	20000	21700	54400
T1-100	T1-100	10/1/1998	28221.8	255	23200	3950	610

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

T1-100	T1-100	11/17/1998	132.1	5.00 U	5.00 U	127	5.1
T1-100	T1-100	12/1/1998	123.2	26.2	37.2	10.6	49.2
T1-100	T1-100	1/1/1999	7467.2	439	1790	1420	3740
T1-100	T1-100	2/1/1999	0.4	0.15 U	0.17 J	0.16 U	0.23 U
T1-100	T1-100	2/12/1999	1.85	0.15 U	0.25 J	0.16 U	0.23 U
T1-100	T1-100	5/1/1999	17.35	0.71 J	0.74 J	0.16 U	0.40 J
T1-100	T1-100	8/1/1999	1.79	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	T1-100	8/20/1999	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	T1-100	2/9/2000	3.9	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	T1-100	2/10/2000	1.6	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	T1-100-TR-080800	8/8/2000	157.57	8	20	69	59
T1-100	T1-100-TR-022301	2/23/2001	1445.1	13	96	1100	230
T1-100	T1-100	8/19/2001	0.35	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	T1-100-TR-081901	8/19/2001	214.8	7.0 J	21 J	81 J	98 J
T1-100	T1-100	2/1/2002	7.3	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	T1-100-TR-020102	2/1/2002	154.49	10 J	83 J	56 J	2.3 J
T1-100	T1-100-TR-080602	8/6/2002	71.59	11	28 J	29	3.4
T1-100	T1-100	2/1/2003	21.09	0.59 J	1.5 J	0.16 U	0.23 U
T1-100	T1-100-0203	2/10/2003	490056.5	20	8.6	17	490000
T1-100	T1-100-0803	8/15/2003	160.49	11	86	58	2.4
T1-100	T1-100-0204	2/10/2004	225.8	3.1	19	200	2
T1-100	GW-080106-ILM-T1-100	8/1/2006	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T1-100	GW-072710-CM-T1-100	7/27/2010	0.444 J	0.015 U	0.02 U	0.444 J	0.025 UJ
T1-100	GW-072710-CM-FD-013	7/27/2010	(Duplicate) 28.583 J	12.8	0.692	12.6 J	1.92 J
T1-25	T1-25	2/28/1996	76	3.2 J	11 J	36 J	24 J
T1-25	T1-25	5/7/1996	72.2	3.1	8.6	38	21
T1-25	T1-25	6/17/1996	R	1.2 J	3.9 J	77 J	34 J
T1-25	T1-25	7/18/1996	141.3 J	3.3 J	8.4 J	85 J	43 J
T1-25	T1-25	8/13/1996	64.34	0.34 J	0.16 U	0.16 U	0.23 U
T1-25	T1-25	9/23/1996	740	15.00 U	16.00 U	16.00 U	23.00 U
T1-25	T1-25	11/7/1996	(Duplicate) 38.16	0.16 J	0.16 U	0.16 U	0.23 U
T1-25	T1-25	11/7/1996	320	15.00 U	16.00 U	16.00 U	23.00 U
T1-25	T1-25	2/4/1997	17	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	5/8/1997	37	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	8/28/1997	1.8	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	11/21/1997	36	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	2/11/1998	7.5	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	3/2/1998	1.6	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	5/19/1998	7.7	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	8/11/1998	1.3	0.15 U	0.16 U	0.16 U	0.23 U
T1-25	T1-25	2/12/1999	5.69	0.48 J	1.3 J	0.51 J	0.23 U
T1-25	T1-25	8/20/1999	138.69 J	98.6 J	29.7 J	2.23 J	2.00 J
T1-25	T1-25	2/9/2000	72715 J	6070 J	63900 J	325 J	500 UJ
T1-25	T1-25	2/10/2000	437680 J	35600 J	381000 J	2000 UJ	2000 UJ
T1-25	T1-25-TR-080800	8/8/2000	130 J	1.50 U	1.60 U	1.60 UJ	2.30 U
T1-25	T1-25-TR-021801	2/18/2001	4604.4	1400	3110	28.4 J	40.0 U
T1-25	T1-25-TR-081601	8/16/2001	136.8	1.50 U	20 J	1.60 U	2.30 U
T1-25	T1-25	8/16/2001	116200	29900	84700	940 J	660 J
T1-25	T1-25	1/28/2002	62385	20300	41200	885	500 U
T1-25	T1-25-TR-012802	1/28/2002	4304.2 J	1420 J	2810 J	12.4 J	20.0 UJ
T1-25	T1-25-TR-080602	8/6/2002	89	1.50 U	1.60 U	1.60 U	2.30 U
T1-25	FD5-TR-080602	8/6/2002	(Duplicate) 0.428 J	0.107 J	0.215 J	0.106 J	0.025 UJ
T1-25	T1-25	2/1/2003	13790	2460	10700	568	200 U
T1-25	T1-25-0203	2/10/2003	2477.2	594	1810	21.2 J	40.0 U
T1-25	FD6-0203	2/10/2003	(Duplicate) 0.075 UJ	0.015 UJ	0.02 UJ	0.015 UJ	0.025 UJ
T1-25	FD2-0803	8/15/2003	(Duplicate) 363.4	1.50 U	21 J	200 J	140 J
T1-25	T1-25-0803	8/15/2003	4973.6 J	1830 J	3060 J	9.00 J	7.20 J
T1-25	T1-25-0204	2/10/2004	40968	11500	28900	400 U	400 U
T1-25	GW-021208-TG-T1-25	12/2/2008	461.7	1.8	8.2	13	20
T1-50	T1-50	2/28/1996	160	1.50 U	1.60 U	1.60 U	2.30 U
T1-50	T1-50	5/7/1996	242	1.50 U	1.60 U	1.60 U	2.30 U
T1-50	T1-50	6/17/1996	37	1.50 U	1.60 U	1.60 U	2.30 U
T1-50	T1-50	7/18/1996	(Duplicate) 11.22	0.15 U	0.22 J	0.16 U	0.23 U
T1-50	T1-50	7/18/1996	39	1.50 U	1.60 U	1.60 U	2.30 U
T1-50	T1-50	8/13/1996	2.8	0.15 U	0.16 U	0.16 U	0.23 U
T1-50	T1-50	9/23/1996	11	0.15 U	0.16 U	0.16 U	0.23 U
T1-50	T1-50	9/23/1996	(Duplicate) 32.34	6.89	7.83	6.89	10.5
T1-50	T1-50	11/7/1996	233140	32700	114000	800 J	360 J
T1-50	T1-50	2/4/1997	211848	10500	118000	535	458
T1-50	T1-50	5/8/1997	21500	12200	8110	100 U	92.0 J
T1-50	T1-50	8/18/1997	11834	2970	1590	40	6850

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

T1-50	T1-50	11/21/1997	14025	694	774	157	12400
T1-50	T1-50	2/11/1998	19242.5	3480	5160	2410	7750
T1-50	T1-50	3/2/1998	14533	4280	1950	50.0 U	6810
T1-50	T1-50	4/1/1998	44162.4	13300	18200	454	718
T1-50	T1-50	5/19/1998	14584.2	3300	2400	7390	1420
T1-50	T1-50	6/1/1998	11858.6	5390	3990	772	740
T1-50	T1-50	7/1/1998	29.78	1.0 J	0.78 J	0.16 U	0.23 U
T1-50	T1-50	8/11/1998	3.6	0.15 U	0.16 U	0.16 U	0.23 U
T1-50	T1-50	9/1/1998	40.76	0.37 J	0.39 J	0.16 U	0.23 U
T1-50	T1-50	10/1/1998	6.35	0.64 J	0.51 J	0.16 U	0.23 U
T1-50	T1-50	11/17/1998	32.35	0.18 J	0.17 J	0.16 U	0.23 U
T1-50	T1-50	12/1/1998	5.29 J	0.21 J	0.38 J	0.16 U	0.23 UJ
T1-50	T1-50	1/1/1999	32.58 J	0.23 J	0.35 J	0.16 U	0.23 UJ
T1-50	T1-50	2/1/1999	76	1.50 U	1.60 U	1.60 U	2.30 U
T1-50	T1-50	2/12/1999	843.36	410	160	26	200
T1-50	T1-50	5/1/1999	133094	50000	63000	240	110
T1-50	T1-50	8/1/1999	227357.6	70000	130000	510	8.7
T1-50	T1-50	8/20/1999	149237.3	48000	61000	34000	3800
T1-50	T1-50	2/9/2000	43980	9100	14000	280 J	18000
T1-50	T1-50	2/10/2000	38811	6900 J	6100 J	68	25000 J
T1-50	T1-50-TR-080800	8/8/2000	1040.3	790	220	8.3	11
T1-50	T1-50-TR-021801	2/18/2001	3.85	2.8	0.82 J	0.16 U	0.23 U
T1-50	FD4-TR-021801	2/18/2001	(Duplicate) 0.075 U	0.015 U	0.02 U	0.015 U	0.025 U
T1-50	T1-50-TR-081601	8/16/2001	30215	15000	10000	980	4000
T1-50	T1-50	8/16/2001	199122.6	80000	110000	2500	4500
T1-50	FD7	8/16/2001	(Duplicate) 444905.9 J	0.15 U	5.9	310000	130000
T1-50	T1-50-TR-012802	1/28/2002	12.33	8.6 J	3.2 J	0.16 U	0.23 U
T1-50	T1-50	1/28/2002	213765	17000	110000	73000	75
T1-50	FD8-TR-012802	1/28/2002	(Duplicate) 8.68 J	0.88 J	1.5 J	4.1 J	2.2 J
T1-50	T1-50-TR-080602	8/6/2002	0.24	0.24 J	0.16 U	0.16 U	0.23 U
T1-50	T1-50	2/1/2003	87490	41000	29000	15000	180
T1-50	T1-50-0203	2/10/2003	9197	5300 J	3700 J	97	2.30 U
T1-50	T1-50-0803	8/15/2003	95	74	21	0.16 U	0.23 U
T1-50	T1-50-0204	2/10/2004	121010	62000	55000	640	750
T1-50	GW-041206-TR-T1-50	4/12/2006	2714	2 U	2 U	190	2500 J
T1-50	GW-021208-TG-T1-50	12/2/2008	160.6	0.75 U	6.3 J	14	20
T2-25	T2-25	9/23/1996	47123	19000	28000	61	16
T2-25	T2-25	2/4/1997	256210	24000	45000	180000	4600
T2-25	T2-25	5/29/1997	237056.8	170	110	150000	85000
T2-25	T2-25	8/14/1997	361784 J	14000	160000	170000	15000
T2-25	T2-25	11/18/1997	307100	12000	130000	150000	12000
T2-25	T2-25	2/11/1998	130470	20000	100000	8700	210
T2-25	T2-25	5/13/1998	26816.1	14000	9000	3600	65
T2-50	T2-50	9/23/1996	66364 J	43000 J	21000 J	2200 J	150 J
T2-50	T2-50	2/4/1997	5955.2 J	3400 J	1800 J	700 J	52 J
T2-50	T2-50	5/29/1997	64926	26000	27000	11000	600
T2-50	T2-50	8/14/1997	35.00 U	15.00 U	16.00 U	16.00 U	23.00 U
T2-50	T2-50	11/18/1997	0.71	0.15 U	0.16 U	0.16 U	0.23 U
T2-50	T2-50	5/13/1998	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T3-100	T3-100	9/23/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T3-100	T3-100	2/4/1997	4.77	0.25 J	0.71 J	0.31 J	0.23 U
T3-100	T3-100	5/29/1997	1.5	0.15 U	0.30 J	0.16 U	0.23 U
T3-100	T3-100	8/14/1997	74.6	6.6	0.16 U	0.16 U	0.23 U
T3-100	T3-100	11/18/1997	28370	2400	25000	790	180 J
T3-100	T3-100	2/11/1998	3558.1	470	2700	380	1.15 U
T3-100	T3-100	5/13/1998	4672.3	110	610	3800	130
T3-25	T3-25	9/23/1996	71880	15.00 U	6700	62000	2000
T3-25	T3-25	2/4/1997	17783	75 J	3300	14000	260
T3-25	T3-25	5/29/1997	3339.7	140	600	2500	44
T3-25	T3-25	8/14/1997	166.9	14	63	82	6.8
T3-25	T3-25	11/18/1997	4471.48	150	1500	2700	88
T3-25	T3-25	2/11/1998	837.83	32	240	530	27
T3-25	T3-25	5/13/1998	2.82 J	0.15 UJ	1.1 J	1.5 J	0.23 UJ
T3-50	T3-50	9/23/1996	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T3-50	T3-50	2/4/1997	8	0.15 U	0.16 U	0.16 U	0.23 U
T3-50	T3-50	5/29/1997	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T3-50	T3-50	8/14/1997	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T3-50	T3-50	11/18/1997	0.81	0.15 U	0.16 U	0.16 U	0.23 U
T3-50	T3-50	2/11/1998	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T3-50	T3-50	5/13/1998	421.6	20.3	43.4	134	214
T4-25	T4-25	2/24/1997	140.73	7.38	11.4	8.75	104

**TABLE 4.3**  
**SUMMARY OF VOCs**  
**OCCIDENTAL CHEMICAL CORPORATION**  
**TACOMA, WASHINGTON**

T4-25	T4-25	5/29/1997	7723.2	17.2 J	8.80 J	40.0 U	7670
T4-25	T4-25	8/14/1997	1162.3	42.2	25.8	8.26	1060
T4-25	T4-25	11/18/1997	78582	883	4210	17100	56200
T4-25	T4-25	2/11/1998	17686	200 U	200 U	786	16900
T4-25	T4-25	5/13/1998	92934.8	1140	47800	20400	23400
T4-50	T4-50	2/24/1997	77995	1390	2140	885	71800
T4-50	T4-50	5/29/1997	428.94	14.2	17.9	23.6	372
T4-50	T4-50	8/14/1997	14221 J	34.0 J	47.0 J	40.0 J	14100 J
T4-50	T4-50	11/18/1997	154.7 J	14.2 J	17.2 J	11.3 J	112 J
T4-50	T4-50	2/11/1998	2931.9	2200	590	9.9 J	79
T4-50	T4-50	5/13/1998	63276 J	23500 J	37900 J	400 UJ	616 J
T5-120	T5-120	11/7/1994	50.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ
T5-120	T5-120	2/24/1997	143.2	120	12	2.0 J	0.23 U
T5-120	T5-120	5/29/1997	12.9 J	2.2 J	1.5 J	7.4 J	0.23 UJ
T5-120	T5-120	8/14/1997	14.19 J	0.48 J	0.44 J	0.27 J	0.23 UJ
T5-120	T5-120	11/18/1997	3.99	0.69 J	0.16 U	0.16 U	0.23 U
T5-120	T5-120	2/9/1998	2.76	1.5	0.16 J	0.16 U	0.23 U
T5-120	T5-120	8/10/1998	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T5-120	WG-082512-LP-T5-120-295	8/25/2012	0.31 U	0.066 U	0.055 U	0.062 U	0.14 U
T5-120	GW-062613-LP-T5-120-10	6/26/2013	163400	8000	94000	31000	3400
T5-25	T5-25	11/4/1994	0.35 U	0.15 U	0.16 U	0.16 U	0.23 U
T5-25	T5-25	2/24/1997	6650	4500	1500	530	70
T5-25	T5-25	5/29/1997	3257	1800	940	350	89
T5-25	T5-25	8/14/1997	495	180	110	95	110
T5-25	T5-25	11/18/1997	628	200	180	170	78
T5-25	T5-25	2/9/1998	549	69	62	250	130
T5-25	T5-25	8/10/1998	620	140	140	190	150
T5-25	T5-25	11/8/2002	352	39 J	54 J	130 J	110 J
T5-25	GW-042706-TV-T5-25	4/27/2006	2780 J	25 U	25 U	880	1800
T5-60	T5-60	11/4/1994	765	79	130	270	250
T5-60	T5-60	2/24/1997	748	71	120	340	200
T5-60	T5-60	5/29/1997	243	62	48	73 J	60
T5-60	T5-60	8/14/1997	303	10	55	82	150
T5-60	T5-60	11/18/1997	305	5 U	52	68	180
T5-60	T5-60	8/10/1998	222	7	42	53	120
T5-60	T5-60	11/8/2002	153	6	17	49	81
T6-120	T6-120	2/24/1997	201	21	42	38	100
T6-120	T6-120	5/29/1997	754	150	170	130	270
T6-120	T6-120	8/14/1997	280	8	11	68	180
T6-120	T6-120	2/9/1998	745	270	190	160	110
T6-120	T6-120	5/13/1998	317.2 J	61	64	48	140
T6-120	T6-120	8/11/1998	151.8	19	9.8	27	96
T6-120	GW-041206-TS-T6-120	4/12/2006	1440	50 U	50 U	700	170
T6-25	T6-25	2/24/1997	214	97	47	40	30
T6-25	T6-25	11/18/1997	2114.9	320	1100	350	100
T6-25	T6-25	2/9/1998	155.3	78	33	17	17
T6-25	T6-25	5/13/1998	174.1	94	37	20	18
T6-25	GW-041206-TS-T6-25	4/12/2006	3160	50 U	50 J	2400 J	240 J
T6-60	T6-60	2/24/1997	162.1	26	39	55	32
T6-60	T6-60	8/14/1997	131.9	42	36	32	16
T6-60	T6-60	11/18/1997	137	48	33	34	16
T6-60	T6-60	2/9/1998	123.4	38	22	42	11
T6-60	T6-60	5/13/1998	89.12	28	16	21	13
T6-60	SP-07842-110802-DC-085	11/8/2002	3.13	0.50 U	0.29 J	0.43 J	0.93
T6-60	GW-041206-TS-T6-60	4/12/2006	2966	50 U	76	2200	240
WMUA-11	GW-080206-LH-WMUA11-001	8/2/2006	677.2	5 U	38	440	190
WMUA-12	GW-080206-LH-WMUA12-001	8/2/2006	36 J	5 UJ	2.2 J	11 J	19 J
WMUL-01	GW-060712-NE-WMUL01-001	6/7/2012	22.96	0.52 J	0.44 J	0.16 U	0.23 U
WMUM-01	GW-061312-SP-FD-001	6/13/2012	17000	2500 U	2500 U	6000	11000
WMUM-02	GW-061412-SP-WMUM02-001	6/14/2012	20025.4	25	100	4700	15000
WW-A1	GW-031606-WW-A1-MM-001	3/16/2006	19986	100 U	390	9800	8900
WW-A3	GW-042106-WW-A3-BI-001	4/21/2006	96700	12000	52000	30000	1000 U
WW-A3	GW-042406-WW-A3-BI-002	4/24/2006	24280	2500	7800	12000	1600
WW-A3	GW-050906-WW-A3-BI-006	5/9/2006	1680 J	12.5 U	12.5 U	240	1300
WW-A4	GW-042506-WW-A4-BI-001	4/25/2006	19432	780	4000	12000	2600
WW-A4	GW-042506-WW-A4-BI-002	4/25/2006	24234	870	6000	14000	2800
WW-A4	GW-042706-WW-A4-BI-006	4/27/2006	207	16 J	32 J	13 J	130
WW-A4	GW-042706-WW-A4-BI-005	4/27/2006	136.9 J	2 UJ	2 UJ	2.9 J	120
WW-B1	GW-031006-WW-B1-DR-001	3/10/2006	5 U	5 U	5 U	5 U	5 U
WW-B1	GW-031206-WW-B1-BS-002	3/12/2006	12	5 U	12	5 U	5 U
WW-B1	GW-031206-WW-B1-BS-003	3/12/2006	5 U	5 U	5 U	5 U	5 U



TABLE 4.3

SUMMARY OF VOCs  
 OCCIDENTAL CHEMICAL CORPORATION  
 TACOMA, WASHINGTON

WW-B1	GW-031306-WW-B1-DR-006	3/13/2006	0.428	0.078 J	0.055 U	0.35 J	0.14 U	
WW-B1	GW-031306-WW-B1-BS-004	3/13/2006	8.9	5 U	5 U	5 U	8.9	
WW-B1	GW-031306-WW-B1-BS-005	3/13/2006	5 U	5 U	5 U	5 U	5 U	
WW-B2	GW-041706-WW-B2-JW-002	4/17/2006	0.19	0.15 U	0.16 U	0.16 U	0.23 U	
WW-B2	GW-041706-WW-B2-JW-004	4/17/2006	1	0.15 U	1. J	0.16 U	0.23 U	
WW-B2	GW-041706-WW-B2-JW-003	4/17/2006	1.33	0.15 U	0.16 U	0.68 J	0.23 U	
WW-B2	GW-041806-WW-B2-MM-006	4/18/2006	50.0 U	10.0 U	10.0 U	10.0 U	10.0 U	
WW-B2	GW-041906-WW-B2-MM-007	4/19/2006	1.68	1.00 U	1.00 U	1.00 U	1.00 U	
WW-B3	GW-050906-WW-B3-DR-005	5/9/2006	2.95	1.00 U	1.00 U	1.00 U	1.00 U	
WW-B3	GW-050906-WW-B3-GH-004	5/9/2006	3.8	5 U	1.0 J	1.6 J	1.2 J	
WW-B3	GW-050906-WW-B3-GH-001	5/9/2006	21.4	5 U	5 U	5 U	8.5	
WW-B3	GW-050906-WW-B3-GH-003	5/9/2006	7.2 J	5 U	5 U	5 U	7.2	
WW-B3	GW-051006-WW-B3-MM-007	5/10/2006	48100	4100	11000	26000	6500	
WW-B4	GW-050106-WW-B4-GH-002	5/1/2006	1700 J	12.5 U	12.5 U	250	1300	
WW-B4	GW-050206-WW-B4-DR-004	5/2/2006	0.52	0.066 U	0.36 J	0.16 J	0.14 U	
WW-B4	GW-050206-WW-B4-MM-006	5/2/2006	14	5 U	14	5 U	5 U	
WW-B4	GW-050206-WW-B4-DR-003	5/2/2006	87900	4700	28000	17000	1200	
WW-B4	GW-050206-WW-B4-DR-005	5/2/2006	158600	6200	67000	27000	1900	
WW-B4	GW-050306-WW-B4-DR-008	5/3/2006	31600	1900	22000	3800	1000 U	
WW-B4	GW-050306-WW-B4-MM-007	5/3/2006	0.097 U	0.0578 U	0.0641 U	0.0433 U	0.0604 U	
WW-C1	GW-030606-WW-C1-MM-004	3/6/2006	(Duplicate)	143	0.15 U	0.16 U	0.16 U	0.23 U
WW-C1	GW-030606-WW-C1-MM-001	3/6/2006	235.9	0.15 U	0.16 U	0.16 U	0.23 U	
WW-C1	GW-030606-WW-C1-BS-005	3/6/2006	277.9	32	56	100	29	
WW-C1	GW-030606-WW-C1-MM-003	3/6/2006	326	0.15 U	0.16 U	83	0.23 U	
WW-C1	GW-030606-WW-C1-MM-002	3/6/2006	2.8 U	0.15 U	0.16 U	0.16 U	0.23 U	
WW-C1	GW-030706-WW-C1-BS-006	3/7/2006	2.8 U	0.15 U	0.16 U	0.16 U	0.23 U	
WW-C3	GW-040406-WW-C3-GH-001	4/4/2006	3486	86	50 U	50 U	3400	
WW-C3	GW-040506-WW-C3-GH-002	4/5/2006	8900	250 U	250 U	1600	7300	
WW-C3	GW-041206-WW-C3-BI-006	4/12/2006	7140	100 U	140	5600	620	
WW-C4	GW-042406-WW-C4-DR-002	4/24/2006	31640	2800	9200	18000	1100	
WW-C4	GW-042506-WW-C4-DR-006	4/25/2006	1051.6	75	300	570	87	
WW-C4	GW-042506-WW-C4-MM-005	4/25/2006	14990	33 U	28 U	12000	2700	
WW-C4	GW-042506-WW-C4-BS-004	4/25/2006	21662	720	4800	13000	2300	
WW-C4	GW-042506-WW-C4-DR-003	4/25/2006	22750	750	4800	14000	2300	
WW-D1	GW-042806-WW-D1-MM-001	4/28/2006	0.422	0.144 U	0.126 U	0.236 J	0.186 J	
WW-D1	GW-042806-WW-D1-MM-002	4/28/2006	25331.1	1680	3600	18200	1770	
WW-D1	GW-043006-WW-D1-DR-003	4/30/2006	34520	9370	20100	2390	2660	
WW-D1	GW-050106-WW-D1-DR-004	5/1/2006	277.019	19.6	82.7	110	46.6	
WW-D1	GW-050106-WW-D1-DR-005	5/1/2006	25703.9	3 U	4 U	19000	6560	
WW-D1	GW-051506-WW-D1-BI-006	5/15/2006	168.236	0.153 J	0.02 U	164	3.42	

TABLE 5.1

**HYDROGEOLOGIC PARAMETERS FOR GROUNDWATER MIGRATION RATE CALCULATIONS  
NATURAL ATTENUATION EVALUATION  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

	Organic carbon fraction ( $f_{oc}$ ) (g/g)	Total Porosity ( $n_T$ ) <sup>1</sup>	Bulk Density ( $\rho_b$ ) (g/cm <sup>3</sup> )	Hydraulic Conductivity ( $K$ ) (cm/s)	Hydraulic Gradient ( $dh/dl$ )	Groundwater Velocity ( $v_x$ ) (ft/yr)
arithmetic mean	0.0057	0.43	1.61	--	0.0042	20
geometric mean	--	--	--	1.96E-03	--	--
maximum value	0.022	--	--	--	0.0016	7.5
minimum value	0.00016	--	--	--	0.014	67

Equation:

$$v_x = \frac{K}{n_e} \frac{dh}{dl}$$

Notes:

<sup>1</sup> No effective porosity value available for Site, so total porosity was used

TABLE 5.2

**COMPOUND-SPECIFIC PARAMETERS AND GROUNDWATER MIGRATION RATES  
NATURAL ATTENUATION EVALUATION  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

Constituents of Concern	Compound Used in Natural Attenuation Evaluation	Organic Carbon Partitioning Coefficient ( $K_{oc}$ ) <sup>1</sup> (L/Kg)	Distribution Coefficient ( $K_d$ ) (L/Kg)		Retardation Factor (based on min/max $f_{oc}$ values <sup>2</sup> ) ( $R$ ) --		Migration Rate (based on mean groundwater velocity <sup>2</sup> ) ( $v_c$ ) (ft/yr)		Migration Rate (based on min/max groundwater velocity <sup>2</sup> ) ( $v_c$ ) (ft/yr)	
			min	max	min	max	min	max	min	max
Volatile Organic Compounds (VOCs)	Vinyl Chloride (VC)	21.73	0.0035	0.48	1.0	2.8	7.2	20	2.7	67
Semi-Volatile Organic Compounds (SVOCs)	Hexachlorobutadiene (HCBD)	845.2	0.14	19	1.5	71	0.28	13	0.11	45
Poly-Brominated Biphenyls (PCBs)	Arochlor 1221	8397	1.3	180	6.0	690	0.029	3.3	0.011	11
Dioxins/Furans	dibenzofuran	9161	1.5	200	6.5	760	0.026	3.1	0.010	10
Anthropogenic Density Plume (ADP)	Chloride ion (Cl <sup>-</sup> )	--	0	0	1.0	1.0	20	20	7.5	67
pH plume	Hydroxide ion (OH <sup>-</sup> )	--	0	0	1.0	1.0	20	20	7.5	67

**Equations:**

$$K_d = K_{oc} f_{oc}$$

$$R = 1 + \frac{\rho_b K_d}{n}$$

$$v_c = \frac{v_x}{R}$$

**Notes:**

<sup>1</sup> From USEPA Region 9 Regional Screening Levels, Chemical Specific Parameters table, November 2013

<sup>2</sup> As presented in Table 5.1

TABLE 5.3

**BIOCHLOR MODEL INPUT PARAMETERS AND RESULTS  
NATURAL ATTENUATION EVALUATION  
OCCIDENTAL CHEMICAL CORPORATION  
TACOMA, WASHINGTON**

**CVOC concentrations:**

Location	10-24	11-100	MW-EXT-9-Shallow	61C-160	77C-160
Sample Date	8/21/2012	8/7/2012	7/16/2013	7/17/2012	7/16/2012
Sampled elevation (ft AMSL)	-14.1	-87.68	-110.41	-149.13	-150.22
Tetrachloroethene (mg/L)	170	3.2	14	2.1	5.65
Trichloroethene (mg/L)	5.6	55	190	31	150
cis-1,2-Dichloroethene (mg/L)	ND(2.5)	82	54	6.5	39.5
Vinyl Chloride (mg/L)	ND(2.5)	43	12	0.44	2.3
Distance from source (ft)	20	240	520	740	930

**Site-Specific Hydrogeological Parameters:**

Organic carbon fraction ( $f_{oc}$ ) (g/g)	Total Porosity ( $n_T$ ) --	Bulk Density ( $\rho_B$ ) (g/cm <sup>3</sup> )	Hydraulic Conductivity ( $K$ ) (cm/s)
0.0057	0.43	1.61	1.96E-03

**CVOC parameters and results:**

	Organic Carbon Partitioning Coefficient ( $K_{oc}$ ) <sup>1</sup> (L/Kg)	Distribution Coefficient ( $K_d$ ) (L/Kg)	Retardation Factor ( $R$ ) --	First-Order Decay Coefficient ( $\lambda$ ) (1/yr)	Half-life ( $t_{1/2}$ ) (yr)
Tetrachloroethene	21.73	0.29	2.08	0.09	7.7
Trichloroethene	845.2	0.19	1.69	0.03	23
cis-1,2-Dichloroethene	8397	0.12	1.45	0.04	17
Vinyl Chloride	9161	0.07	1.25	0.08	8.7

## Notes:

<sup>1</sup> From USEPA Region 9 Regional Screening Levels, Chemical Specific Parameters table, November 2013

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# Attachment A

BIOCHLOR Model Files

# Input Screen:

**BIOCHLOR Natural Attenuation Decision Support System**  
Version 2.2  
Excel 2000

Tacoma, WA  
 007843 Hylebos  
Run Name

**Data Input Instructions:**  
 115 → 1. Enter value directly...or  
 ↑ or ↓ 0.02 → 2. Calculate by filling in gray cells. Press Enter, then **C**  
(To restore formulas, hit "Restore Formulas" button )  
Variable\* → Data used directly in model.

---

**TYPE OF CHLORINATED SOLVENT:** Ethenes  Ethanes

**1. ADVECTION**  
 Seepage Velocity\* Vs: 20.0 (ft/yr)  
 Hydraulic Conductivity K: 2.0E-03 (cm/sec)  
 Hydraulic Gradient i: 0.00424 (ft/ft)  
 Effective Porosity n: 0.43 (-)

**2. DISPERSION**  
 Alpha x\*: 30.94 (ft)  
 (Alpha y) / (Alpha x)\*: 0.1 (-)  
 (Alpha z) / (Alpha x)\*: 1.E-99 (-)

**3. ADSORPTION**  
 Retardation Factor\* R: 1.85  
 Soil Bulk Density, rho: 1.61 (kg/L)  
 Fraction Organic Carbon, f<sub>oc</sub>: 5.7E-3 (-)  
 Partition Coefficient K<sub>oc</sub>: 95 (L/kg)  
 PCE: 61 (L/kg) → 3.03 (-)  
 TCE: 40 (L/kg) → 2.30 (-)  
 DCE: 22 (L/kg) → 1.85 (-)  
 VC: 22 (L/kg) → 1.46 (-)  
 ETH: 22 (L/kg) → 1.00 (-)  
 Common R (used in model)\*: 1.85

**4. BIOTRANSFORMATION**  
 -1st Order Decay Coefficient\* λ (1/yr) half-life (yrs) Yield  
 Zone 1  
 PCE → TCE: 0.090 → 1.11 → 0.79  
 TCE → DCE: 0.030 → 3.33 → 0.74  
 DCE → VC: 0.040 → 2.50 → 0.64  
 VC → ETH: 0.080 → 1.25 → 0.45  
 Zone 2  
 PCE → TCE: 0.000 → - → -  
 TCE → DCE: 0.000 → - → -  
 DCE → VC: 0.000 → - → -  
 VC → ETH: 0.000 → - → -

**5. GENERAL**  
 Simulation Time\*: 70 (yr)  
 Modeled Area Width\*: 1200 (ft)  
 Modeled Area Length\*: 2000 (ft)  
 Zone 1 Length\*: 2000 (ft)  
 Zone 2 Length\*: 0 (ft)  
 Zone 2= L - Zone 1

**6. SOURCE DATA**  
 TYPE: Continuous Single Planar  
 Source Thickness in Sat. Zone\*: 50 (ft)  
 Width\* (ft): 950  
 Conc. (mg/L)\* C1: 170.0  
 PCE: 170.0  
 TCE: 5.6  
 DCE: 1.25  
 VC: 1.25  
 ETH: 0

**7. FIELD DATA FOR COMPARISON**

	170.0	3.2	14.0	21.0	5.65
PCE Conc. (mg/L)	170.0	3.2	14.0	21.0	5.65
TCE Conc. (mg/L)	5.6	55.0	190.0	31.0	150.0
DCE Conc. (mg/L)	1.25	82.0	54.0	6.5	39.5
VC Conc. (mg/L)	1.3	43.0	12.0	.44	2.3
ETH Conc. (mg/L)	.14				
Distance from Source (ft)	0	240	520	740	930
Date Data Collected	2012				

**Vertical Plane Source:** Determine Source Well Location and Input Solvent Concentrations

**View of Plume Looking Down**  
Observed Centerline Conc. at Monitoring Wells

**8. CHOOSE TYPE OF OUTPUT TO SEE:**

RUN CENTERLINE

RUN ARRAY

Help

Restore Formulas

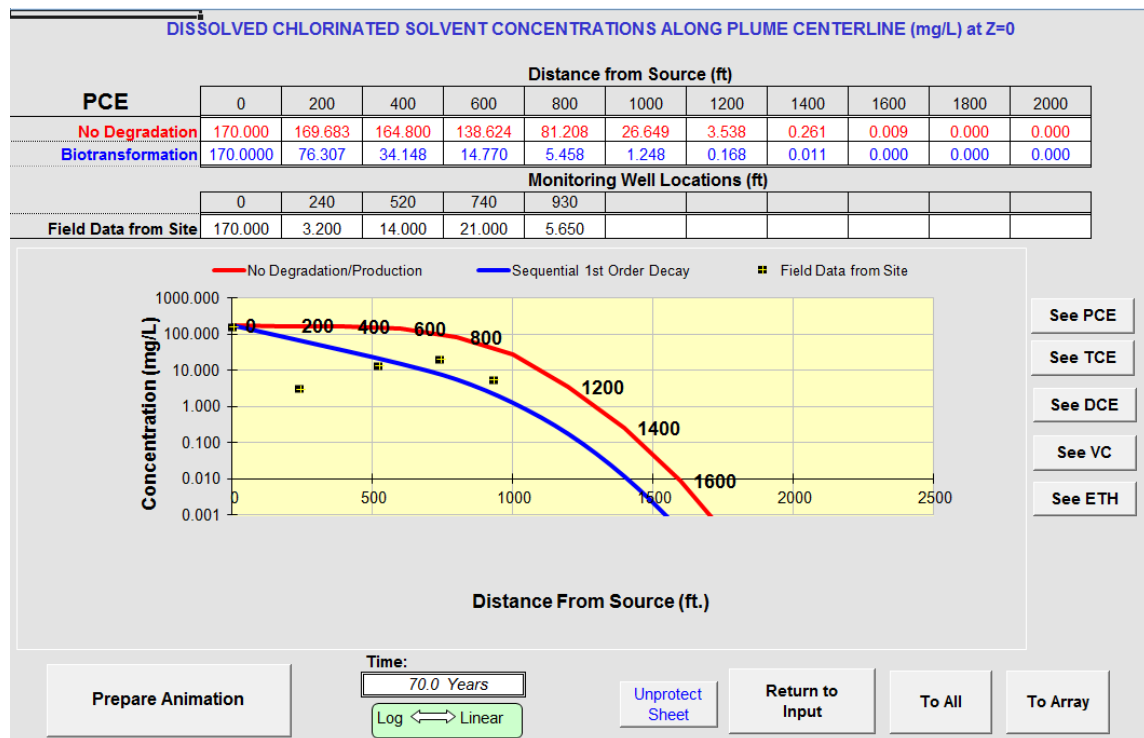
RESET

SEE OUTPUT

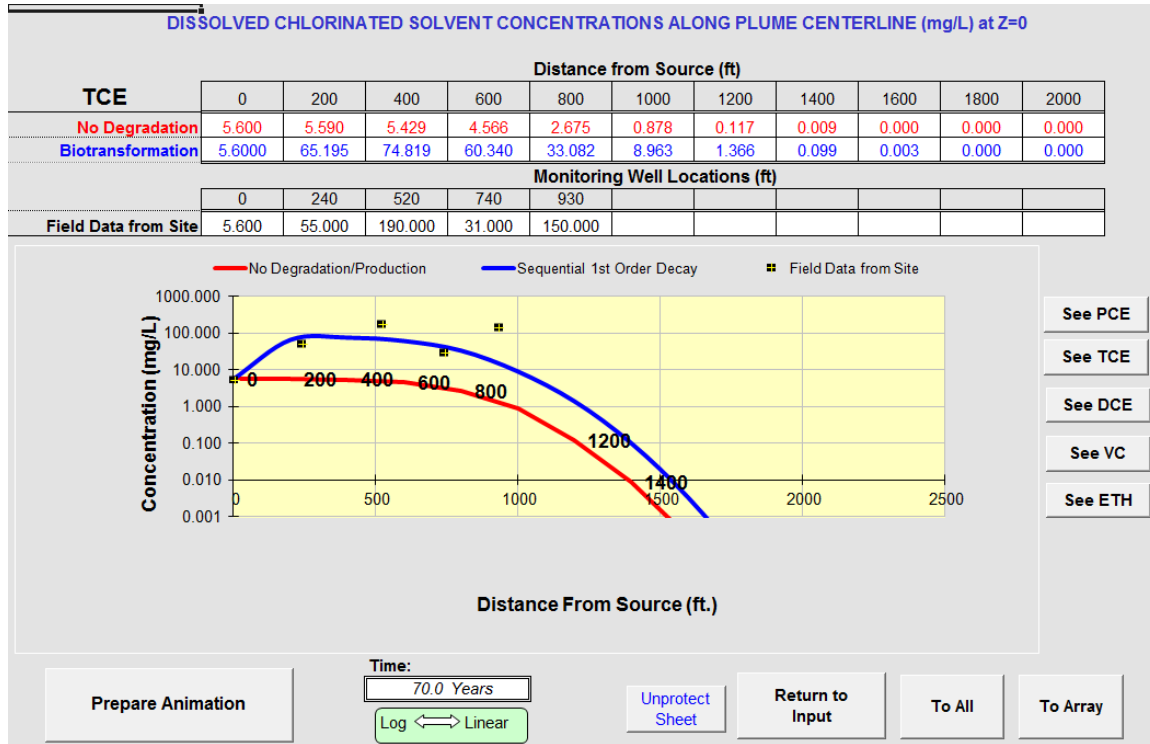
Paste Example

Unprotect Sheet

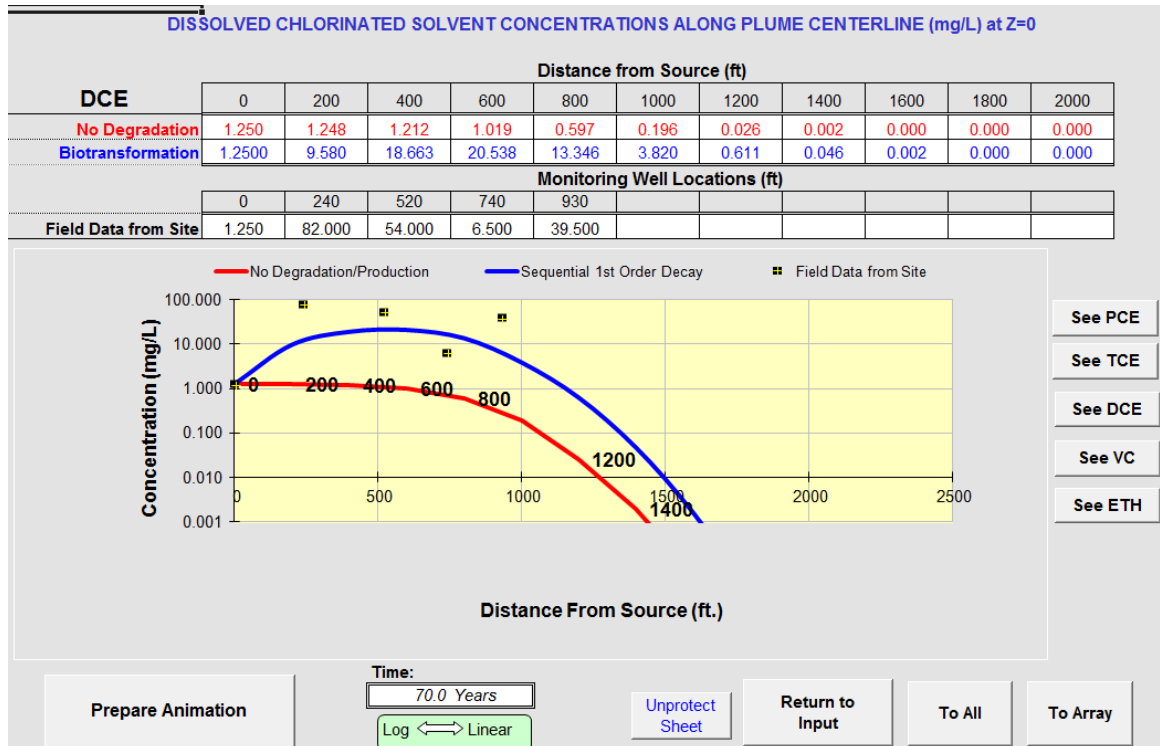
# Output Screen: PCE



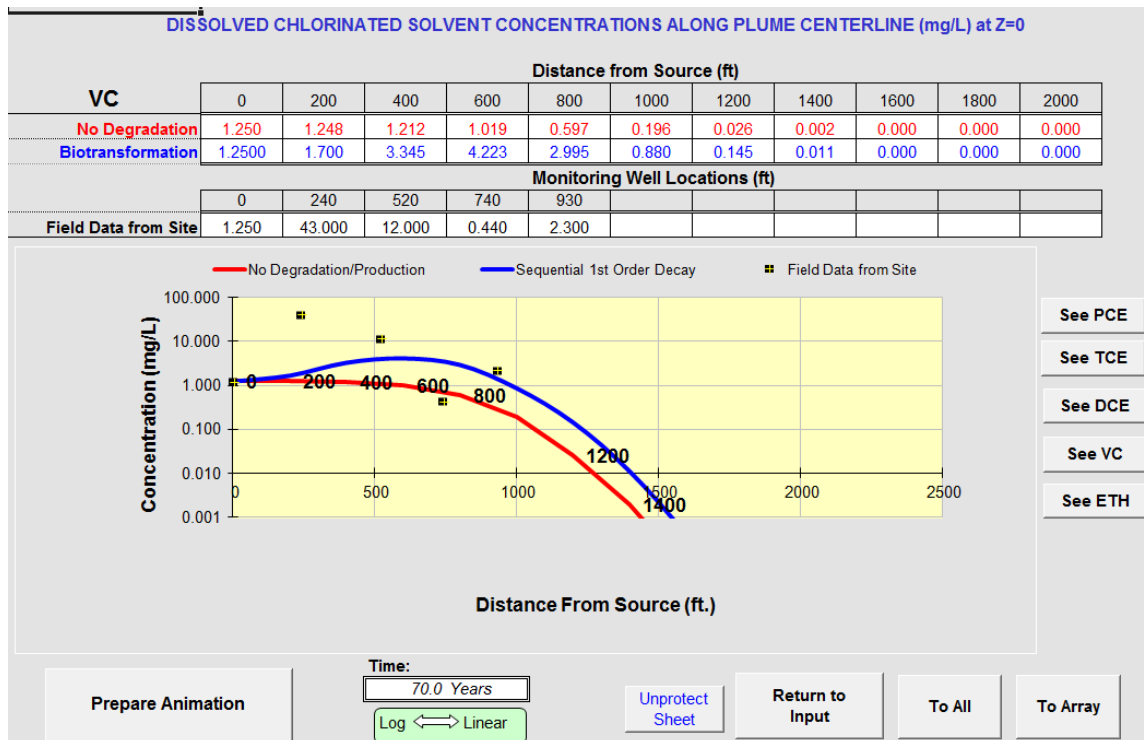
## Output Screen: TCE



## Output Screen: cis-1,2-DCE



# Output Screen: VC





# BIOCHLOR Natural Attenuation Decision Support System

Version 2.2

Excel 2000

Tacoma, WA  
007843 Hylebos  
Run Name

## Data Input Instructions:

115 → 1. Enter value directly... or  
↑ or 0.02 → 2. Calculate by filling in gray cells. Press Enter, then **C**  
(To restore formulas, hit "Restore Formulas" button)  
Variable\* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes  Ethanes

**1. ADVECTION**

Seepage Velocity\* Vs  (ft/yr) **C**

Hydraulic Conductivity K  (cm/sec)

Hydraulic Gradient i  (ft/ft)

Effective Porosity n  (-)

**2. DISPERSION**

Alpha x\*  (ft)

(Alpha y) / (Alpha x)\*  (-)

(Alpha z) / (Alpha x)\*  (-)

**3. ADSORPTION**

Retardation Factor\*  **C**

Soil Bulk Density, rho  (kg/L)

Fraction Organic Carbon, foc  (-)

Partition Coefficient Koc

PCE	<input type="text" value="95"/> (L/kg)	<input type="text" value="3.03"/> (-)
TCE	<input type="text" value="61"/> (L/kg)	<input type="text" value="2.30"/> (-)
DCE	<input type="text" value="40"/> (L/kg)	<input type="text" value="1.85"/> (-)
VC	<input type="text" value="22"/> (L/kg)	<input type="text" value="1.46"/> (-)
ETH	<input type="text" value=""/> (L/kg)	<input type="text" value="1.00"/> (-)

Common R (used in model)\* =  **C**

**4. BIOTRANSFORMATION** -1st Order Decay Coefficient\* **C**

**Zone 1**

PCE → TCE	<input type="text" value="0.090"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	<input type="text" value="Yield"/>
TCE → DCE	<input type="text" value="0.030"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	<input type="text" value="0.79"/>
DCE → VC	<input type="text" value="0.040"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	<input type="text" value="0.74"/>
VC → ETH	<input type="text" value="0.080"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	<input type="text" value="0.64"/>

**Zone 2**

PCE → TCE	<input type="text" value="0.000"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	<input type="text" value="Yield"/>
TCE → DCE	<input type="text" value="0.000"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	<input type="text" value="0.45"/>
DCE → VC	<input type="text" value="0.000"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	
VC → ETH	<input type="text" value="0.000"/> (1/yr)	<input type="text" value="half-life (yrs)"/>	

**5. GENERAL**

Simulation Time\*  (yr)

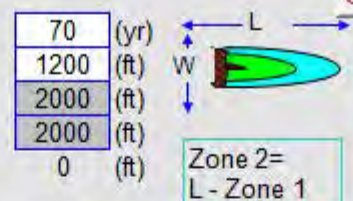
Modeled Area Width\*  (ft)

Modeled Area Length\*  (ft)

Zone 1 Length\*  (ft)

Zone 2 Length\*  (ft)

Zone 2 = L - Zone 1



**6. SOURCE DATA**

Source Options

Source Thickness in Sat. Zone\*  (ft)

Width\* (ft)  Y1

Conc. (mg/L)\* C1

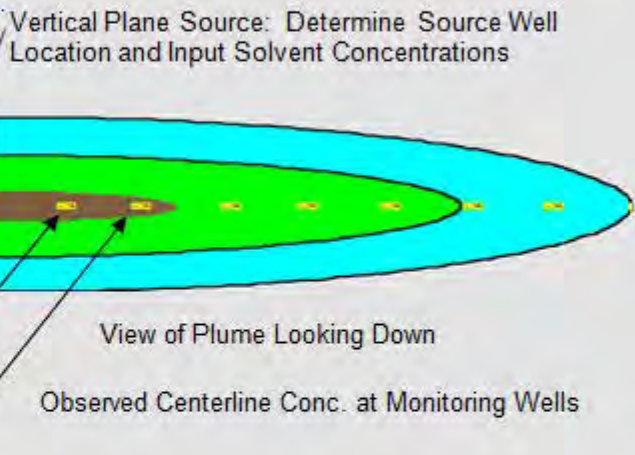
PCE	<input type="text" value="170.0"/>
TCE	<input type="text" value="5.6"/>
DCE	<input type="text" value="1.25"/>
VC	<input type="text" value="1.25"/>
ETH	<input type="text" value=""/>

TYPE: Continuous Single Planar

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations

View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells



**7. FIELD DATA FOR COMPARISON**

PCE Conc. (mg/L)	<input type="text" value="170.0"/>	<input type="text" value="3.2"/>	<input type="text" value="14.0"/>	<input type="text" value="21.0"/>	<input type="text" value="5.65"/>					
TCE Conc. (mg/L)	<input type="text" value="5.6"/>	<input type="text" value="55.0"/>	<input type="text" value="190.0"/>	<input type="text" value="31.0"/>	<input type="text" value="150.0"/>					
DCE Conc. (mg/L)	<input type="text" value="1.25"/>	<input type="text" value="82.0"/>	<input type="text" value="54.0"/>	<input type="text" value="6.5"/>	<input type="text" value="39.5"/>					
VC Conc. (mg/L)	<input type="text" value="1.3"/>	<input type="text" value="43.0"/>	<input type="text" value="12.0"/>	<input type="text" value="0.44"/>	<input type="text" value="2.3"/>					
ETH Conc. (mg/L)		<input type="text" value="0.14"/>								
Distance from Source (ft)	<input type="text" value="0"/>	<input type="text" value="240"/>	<input type="text" value="520"/>	<input type="text" value="740"/>	<input type="text" value="930"/>					
Date Data Collected	<input type="text" value="2012"/>									

170.0	3.2	14.0	21.0	5.65						
5.6	55.0	190.0	31.0	150.0						
1.25	82.0	54.0	6.5	39.5						
1.3	43.0	12.0	0.44	2.3						
	0.14									
0	240	520	740	930						
2012										

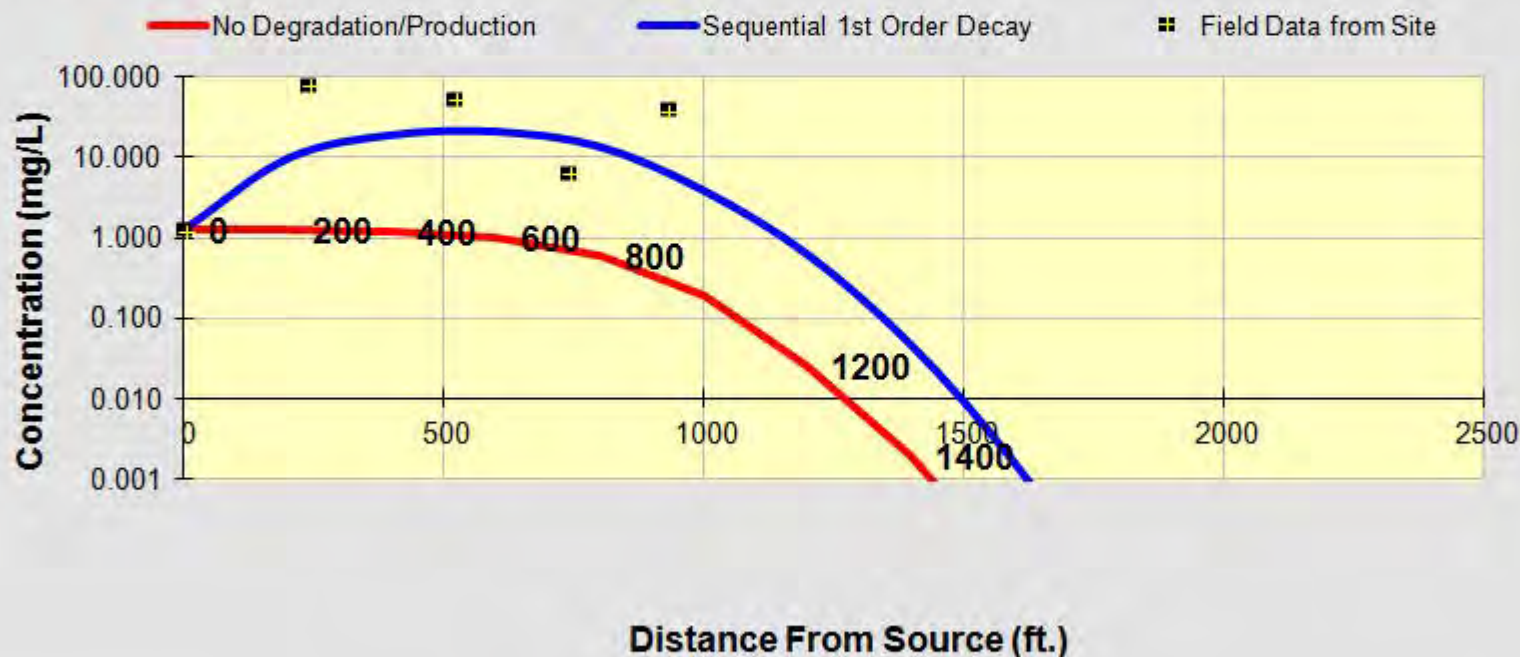
**8. CHOOSE TYPE OF OUTPUT TO SEE:**

# DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

		Distance from Source (ft)										
DCE		0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation	1.250	1.248	1.212	1.019	0.597	0.196	0.026	0.002	0.000	0.000	0.000	0.000
Biotransformation	1.2500	9.580	18.663	20.538	13.346	3.820	0.611	0.046	0.002	0.000	0.000	0.000

		Monitoring Well Locations (ft)									
		0	240	520	740	930					
Field Data from Site		1.250	82.000	54.000	6.500	39.500					



- See PCE
- See TCE
- See DCE
- See VC
- See ETH

**Prepare Animation**

**Time:**

70.0 Years

Log ↔ Linear

Unprotect Sheet

Return to Input

To All

To Array

# DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

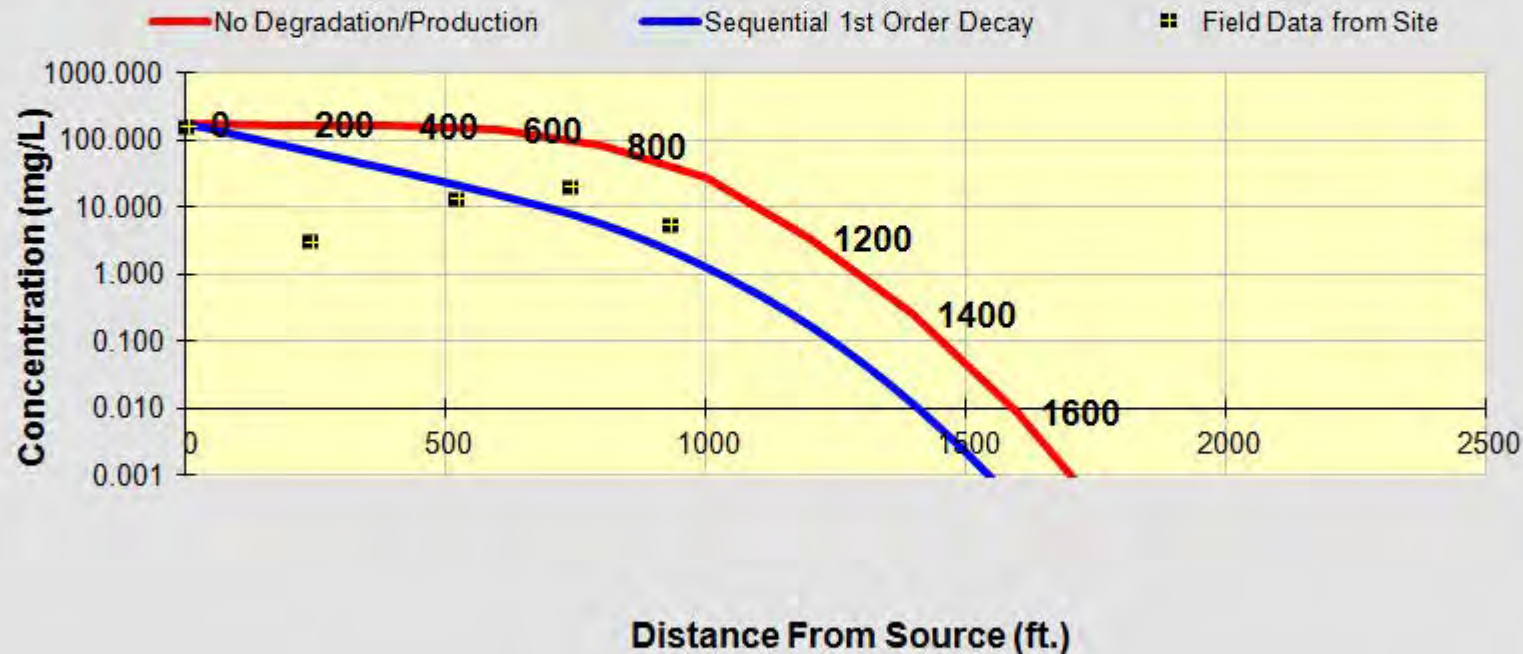
**PCE**

**Distance from Source (ft)**

	0	200	400	600	800	1000	1200	1400	1600	1800	2000
<b>No Degradation</b>	170.000	169.683	164.800	138.624	81.208	26.649	3.538	0.261	0.009	0.000	0.000
<b>Biotransformation</b>	170.0000	76.307	34.148	14.770	5.458	1.248	0.168	0.011	0.000	0.000	0.000

**Monitoring Well Locations (ft)**

	0	240	520	740	930						
<b>Field Data from Site</b>	170.000	3.200	14.000	21.000	5.650						



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

70.0 Years

Log  $\longleftrightarrow$  Linear

Unprotect Sheet

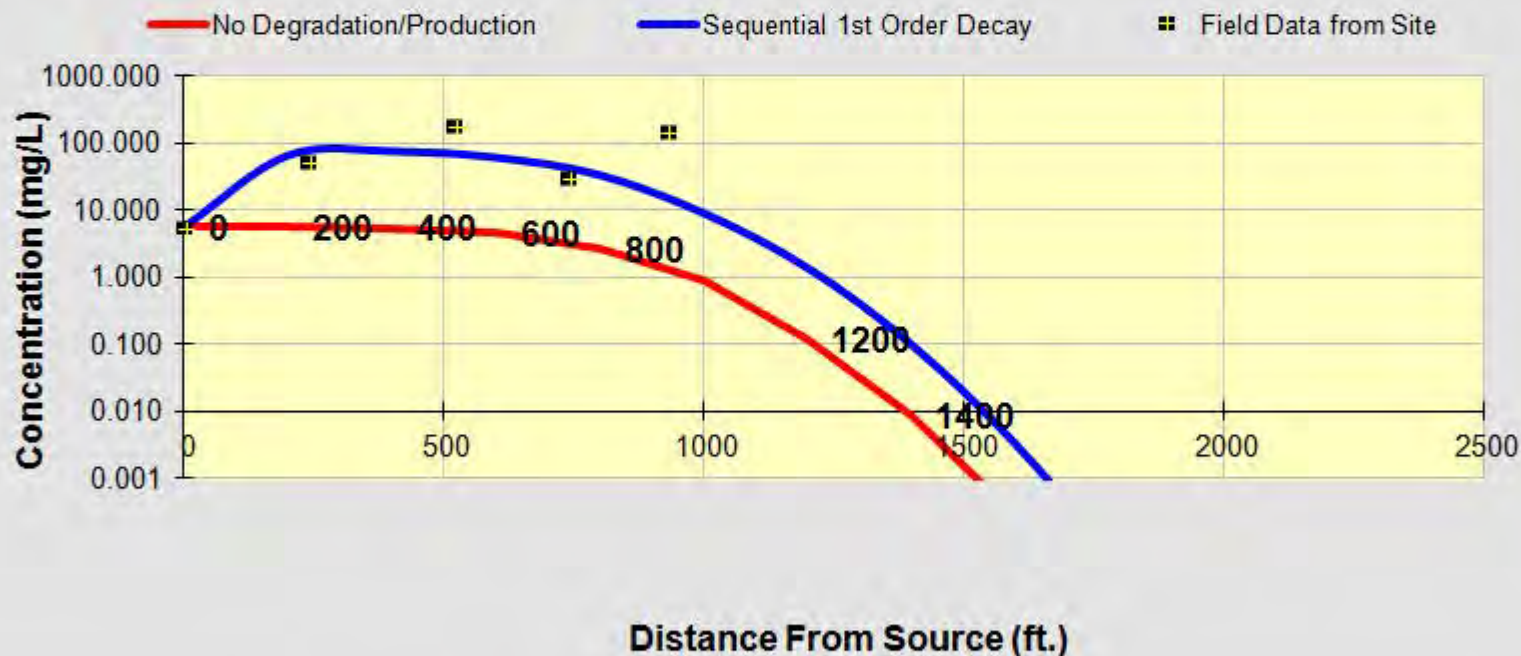
Return to Input

To All

To Array

# DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

		Distance from Source (ft)										
<b>TCE</b>		0	200	400	600	800	1000	1200	1400	1600	1800	2000
<b>No Degradation</b>		5.600	5.590	5.429	4.566	2.675	0.878	0.117	0.009	0.000	0.000	0.000
<b>Biotransformation</b>		5.6000	65.195	74.819	60.340	33.082	8.963	1.366	0.099	0.003	0.000	0.000
		Monitoring Well Locations (ft)										
		0	240	520	740	930						
<b>Field Data from Site</b>		5.600	55.000	190.000	31.000	150.000						



- See PCE
- See TCE
- See DCE
- See VC
- See ETH

Prepare Animation

Time:

Log  $\longleftrightarrow$  Linear

Unprotect Sheet

Return to Input

To All

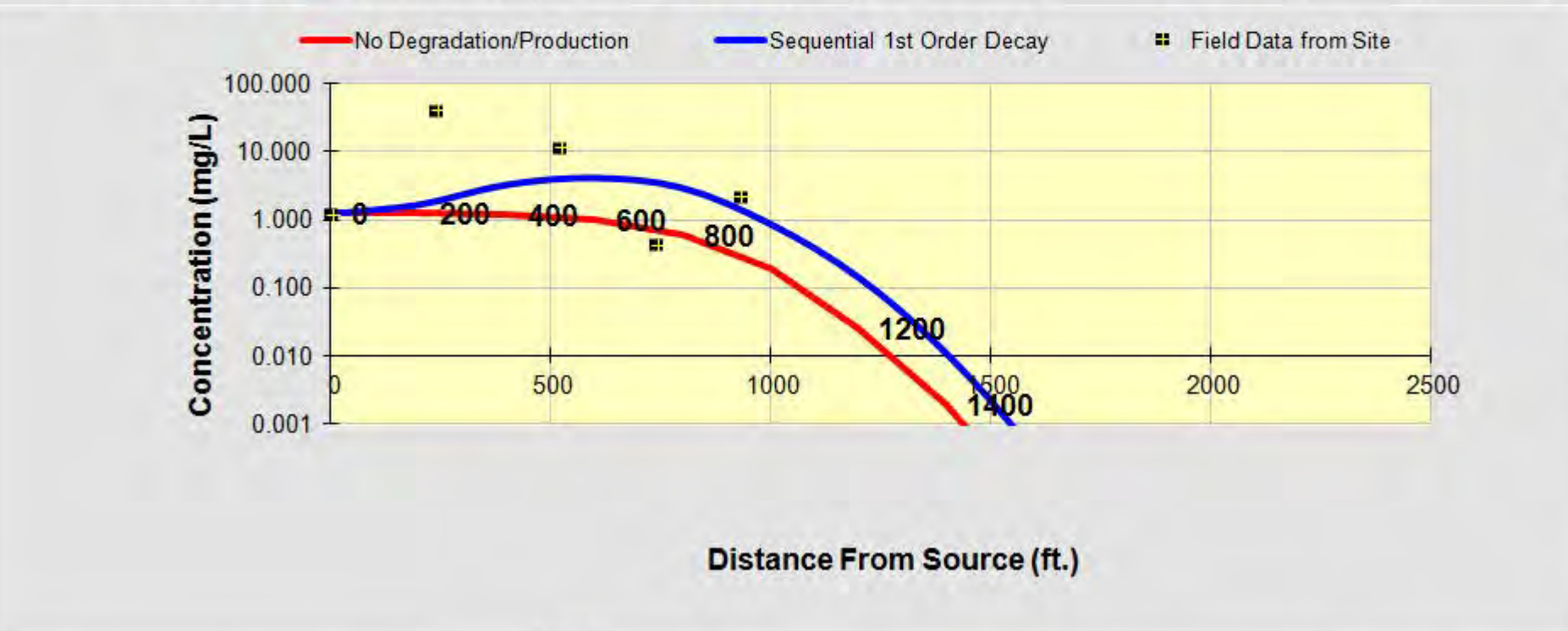
To Array

# DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

		Distance from Source (ft)										
VC		0	200	400	600	800	1000	1200	1400	1600	1800	2000
No Degradation		1.250	1.248	1.212	1.019	0.597	0.196	0.026	0.002	0.000	0.000	0.000
Biotransformation		1.2500	1.700	3.345	4.223	2.995	0.880	0.145	0.011	0.000	0.000	0.000

		Monitoring Well Locations (ft)										
		0	240	520	740	930						
Field Data from Site		1.250	43.000	12.000	0.440	2.300						



- See PCE
- See TCE
- See DCE
- See VC
- See ETH

**Prepare Animation**

Time:

70.0 Years

Log  $\longleftrightarrow$  Linear

Unprotect Sheet

Return to Input

To All

To Array