Phase II Soil Investigation Report

DEL AMO BOULEVARD EXTENSION
TORRANCE, CALIFORNIA

Prepared for:

City of Torrance

California
Contract # C2000-246

Prepared by:

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I. INTRODUCTION

This report presents the background information and sampling results of the Phase II Soil Investigation of the Del Amo Extension conducted by EDAW, Inc. (formerly EDAW Environmental, Inc.). This work was authorized by the City of Torrance, Contract C2000-246, dated November 16, 2000. Prior to the field investigation available records were reviewed for properties immediately adjacent to the proposed alignment. A preliminary environmental site assessment completed in 1991, by Schaefer Dixon Associates, identified potential environmental conditions along the proposed alignment due to past uses of the property. Therefore, readily available records prepared after 1991 were used to determine if additional environmental conditions exist along the proposed alignment. In addition, a limited number of soil samples were collected to determine if environmental conditions identified in historical records could affect the proposed project.

II. SITE DESCRIPTION

The project site is located in the City of Torrance (Figure 1) between the intersection of Del Amo Boulevard at Crenshaw Boulevard on the east and the intersection of Del Amo Boulevard at Prairie Avenue/Madrona Avenue on the west (Figure 2). The proposed alignment for the Del Amo Boulevard Extension crosses over the Burlington Northern Santa Fe (BNSF) railroad tracks, whose right of way is owned by the Southern California Regional Rail Authority (SCRRA). The proposed alignment is generally located between the Mobil Oil (now known as Exxon-Mobil) Torrance Refinery to the north and the Dow Chemical manufacturing plant to the south. The proposed alignment encompasses portions of both of these properties and also traverses the SCRRA right-of-way.

III. PREVIOUS INVESTIGATIONS

EDAW reviewed readily available historical files at the Regional Water Quality Control Board and the City of Torrance for investigations of Dow Chemical and Exxon-Mobil properties completed after 1991. In addition, EDAW made requests directly to Exxon-Mobil and The Dow Chemical Company for information relevant to this project. The Dow Chemical Company provided additional information which included the annual storm water monitoring reports of for years 1998-1999 and 1999-2000.

Exxon-Mobil Property

Based on EDAW review of readily available information, groundwater is affected by releases of petroleum hydrocarbons and chlorinated solvents in several areas of the proposed alignment. The Exxon-Mobil Torrance Refinery has ongoing investigations, monitoring and remediation north and south of Del Amo Boulevard between Prairie Avenue and Maple Avenue and north of the proposed alignment between the BNSF railway right-of-way and Crenshaw Boulevard. Exxon-Mobil's investigations and remedial efforts span more than 10 years. Reviewing all of the information was unreasonable. Therefore, EDAW conducted a review of the biannual groundwater

reports that provide current analysis of groundwater conditions and analytical results of soil samples collected by Exxon-Mobil within the project area.

Ground water in the project vicinity generally flows from west to east. Ground water in the perched aquifer follows this trend. However, historical data indicates a mounding of water, located between the BNSF railway and Crenshaw Blvd, interrupts the west to east flow beneath the refinery (Figure 3). This mounding effect is present in all of the quarters for the year 2000.

Ground water in the lower Gage-Gardena aquifer also follows the general west to east flow pattern. However, groundwater mounding also appears in this aquifer in the northeastern portion of the refinery (Figure 4), away from the Del Amo Boulevard Extension project area. In addition, groundwater is depressed in the southeastern corner of the refinery in the vicinity of the refinery's groundwater pumping system.

Exxon-Mobil has installed over 200 wells for monitoring and recovery of pollutants beneath their property. Groundwater samples are collected from many of these wells for the past 10 years. Several wells in the perched aquifer provide information relevant to the project area. Wells C-19, C-22, C-28, C-29, C-30, D-02, D-03, II-06 and I-07 are located within approximately 300 feet of the proposed alignment between Prairie Avenue and Crenshaw Boulevard. In addition, the refinery operates a groundwater pumping system at the southeast corner of the refinery withdrawing approximately 6,100 acre-feet of water from the Gage-Gardena aquifer.

Non-aqueous phase hydrocarbon recovery began in 1986, and has continued to the present. The volume of hydrocarbons removed each month was approximately 3,000 gallons from the perched and Gage-Gardena aquifers. The volume of hydrocarbons removed from the perched and Gage-Gardena aquifers increased in June of 1999 to 10,000 gallons and increased each month until November 1999, reaching 50,000 gallons. Since November 1999, the volumes recovered have fluctuated from 20,000 to 50,000 gallons per month. A total of approximately 1,182,000 gallons of non-aqueous phase hydrocarbons has been removed from both aquifers, approximately 700,000 gallons from the perched aquifer and 482,000 gallons from the Gage-Gardena aquifer. Figures 5 and 6 show the location and current thickness of non-aqueous hydrocarbons in the perched and Gage-Gardena aquifers, respectively. Non-aqueous phase hydrocarbons are present in the project area only between Prairie Avenue and the BNSF railway in the perched aquifer.

The shallow perched aquifer and underlying Gage-Gardena aquifer contain non-aqueous phase hydrocarbons and dissolved constituents of petroleum hydrocarbons. Samples from the deeper Lynwood-Silverado aquifer also contain benzene, toluene, ethylbenzene and total xylenes (BTEX) at concentrations near reporting limits. Current interpretations of the extent of dissolved benzene by Exxon-Mobil's consultants are provided in Figures 7 and 8 for the perched and Gage-Gardena aquifers, respectively.

Other dissolved petroleum related constituents and chlorinated solvents were detected in the perched and Gage-Gardena aquifers beneath the refinery and surrounding properties. In general, the concentrations of dissolved constituents associated with petroleum refining are found in highest concentration in areas where non-aqueous phase hydrocarbons are present such as well C-22. Wells D-02 and I-07 had the lowest recorded concentrations of dissolved constituents during the year 2000. Chlorinated solvents tetrachloroethene and trichloroethene were reported in addition to the dissolved constituents of petroleum refining. However, it is difficult to state where the highest concentrations of chlorinated solvents are found because the reporting limits are higher for samples collected from wells containing high concentrations of dissolved constituents than the concentrations of solvents in ground water reported in other areas of the aquifer. A summary is shown in Tables 1 through 7 of dissolved constituents reported in ground water collected from the perched and Gage-Gardena aquifers in the project vicinity.

As noted before, the concentrations in the Lynwood-Silverado aquifers are near reporting limits. The dissolved constituents found in the Lynwood-Silverado aquifer may have an effect on the beneficial uses of the aquifer and, therefore, Exxon-Mobil is cooperating with regulators to assess the effects, if any. However, the chemicals are not likely to be a concern to residents during construction and contractors completing the Del Amo Boulevard Extension because of the depth below ground surface to the Lynwood-Silverado aquifer and the low concentration of the chemicals reported by Exxon-Mobil. *(Refinery Subsurface Cleanup Progress Report, Second Semester, 2000; Mobil Torrance Refinery, Dated January 21, 2001, and, Refinery Subsurface Cleanup Progress Report, First Semester, 2000; Mobil Oil Torrance Refinery, Dated July 15, 2000; both reports prepared by England & Associates)*

Dow Chemical Property

Dow Chemical currently owns the property south of the Exxon-Mobil Torrance Refinery. The proposed project traverses the northern boundary of Dow Chemical property between the BNSF railway and Crenshaw Boulevard. Files at the RWQCB and City of Torrance indicate that Dow Chemical removed a leaking underground storage tank (UST) in 1995 and has an active monitoring program for storm water but no ongoing soil or groundwater investigations, monitoring or remedial action. A brief summary of the UST soil excavation report and annual monitoring program storm water is also presented below.

The Dow Chemical Company operated a 5,000 gallon gasoline tank and fuel dispenser for fleet refueling. The tank was located approximately 400 feet south of the fence line adjacent to the above ground emergency water storage tanks. The underground fuel tank, associated piping and dispenser were removed in August 1995. Total petroleum hydrocarbons in the gasoline range were reported at a concentration of 9,600 ppm in soil samples collected from the bottom of the resulting excavation on the western side. In addition, benzene, toluene, ethyl benzene and total xylenes were also reported in samples.

The excavation remained open until additional soil was removed in November 1995 to an approximate length and width of 30 feet by 40 feet and an approximate depth of 30 feet below ground surface. Samples taken from the perimeters of the larger excavation were below reporting limits for all petroleum related compounds along the north, east and south walls and from the bottom of the excavation. The excavation was filled with pea gravel to within 5 feet of ground surface and then filled to the surface with soil provided by Dow Chemical. Records do not indicate additional work was requested by the lead agency. *(Report on Soil Excavation and Confirmation Soil Sampling; The Dow Chemical Company, Dated January 10, 1996, Prepared by W.W. Irwin, Inc.)*

The Dow Chemical Company conducts an annual monitoring program for storm water. The program is a combination of visual observations and discrete water samples collected at specified discharge locations. Two discharge locations were reported for Dow Chemical; a lined pond inside the facility and a maintenance parking lot at the main entrance to the facility. The lined pond discharges directly to a municipal storm water collection system. The maintenance parking lot is adjacent to the project area and the discharge from this area enters a drainage channel lined with concrete inside the project area before entering the municipal collection system.

Samples of the discharge from the maintenance parking lot are analyzed for basic analytes such as pH, total suspended solids, specific conductance and total organic carbon. Other analytes include organic chemicals and metals that have dissolved in water such as chloroethane, ethylbenzene, styrene, acetone and acrylonitrile, ethylene glycol, antimony and zinc. Storm water flows from Dow Chemical's property via overland flow, crossing exposed soil before entering the lined storm channel. Reported analytical results indicate the presence of contaminants that could percolate through the soil. *(1999-2000 Annual Report For Storm Water Discharges Associated with Industrial Activities, Reporting Period July 1, 1999 through June 30, 2000; and 1998-1999 Annual Report For Storm Water Discharges Associated with Industrial Activities, Reporting Period July 1, 1998 through June 30, 1999; The Dow Chemical Company)*

IV. FIELD SAMPLING PROJECT APPROACH

An initial field investigation was planned to verify the presence or absence of potential environmental conditions rather than determine the lateral and vertical extent of the conditions. A total of twelve locations were selected. Two samples were planned at different depths at each location to estimate the volume of contamination, if any was present. Sample depths were kept shallow because grading and compacting activities for the foundation of the roadway are expected to occur within the first five feet beneath the existing grade.

Sample Location and Analyte Rationale

The initial environmental site assessment completed in 1991 identified 12 areas where sampling was appropriate. Additional historical records review and a site visit in November 2000 confirmed the number of samples but changed a few locations.

Location 1 - Corner of Crenshaw and Del Amo Boulevards

The northwestern corner of this intersection is unpaved between Crenshaw and the entrance to BOC Gases Facility. Two small piles of rumble and general debris were observed during the site visit in November 2000, as well as tire marks representing what appeared to be a minor amount of vehicle traffic and lack of vegetation. A sample was collected in the unpaved area because of the ruble, general debris and easy access for vehicles. The final sample location was determined in the field to avoid a significant amount of buried utilities, overhead power lines, existing railroad tracks and buried storm channel. Soil samples from this location were analyzed for total petroleum hydrocarbons (TPH) and volatile organic compounds (VOC), contaminants reported in the ground water in project vicinity.

Location 2 - Unpaved Parking Area Across from Main Entrance to The Dow Chemical Company Facility

Several supply trucks were observed staging in an unpaved area across the street from the main entrance to The Dow Chemical Company. In addition, runoff collected in shallow pools in this area from the street and paved areas inside the entrance to Dow Chemical. Trucks appeared to park in this area until they gained access through the security gate to the facility. The area where trucks are staged lacked vegetation. Samples were analyzed for TPH, VOC, California Assessment Manual (CAM) list of metals and semi-volatile organic compounds(semi-VOC) because of storm water from parking areas and potential spills of cargo.

Location 3 - Between the Above Ground Emergency Water Storage Tanks Inside The Dow Chemical Company Fenceline

The Dow Chemical Company stores water in 500,000 gallon above ground steel tanks for fire suppression. The tanks are located inside the fenceline west of the main entrance from Del Amo Boulevard. The California Department of Transportation requested a sample as close to the tanks as possible. The final sample location was determined in the field between the two tanks yet at a distance away from the tanks to avoid buried piping and the concrete foundation pads. Samples were analyzed for TPH and VOC, contaminants reported in the groundwater in this vicinity.

Location 4 – North of Emergency Water Storage Tanks Adjacent to Storm Channel

The choice of locations 4 and 5 were originally intended to represent compounds adsorbed to soil and sediment that separated from storm water flowing through the channel. The open and unlined portion of the storm channel is approximately 700 lineal feet in length. Two locations for this length were assumed to be adequate for the initial field investigation screening and help identify potential sources. Rain one day prior to the field sampling made the bottom of the channel too soft and saturated for representative samples. So the final location was selected in the field adjacent to the

channel but out of the moist soil. Samples were analyzed for TPH and VOC, contaminants reported in the ground water in this vicinity.

Location 5 – Adjacent to Storm Channel and West of Location 4

See the information for location 4.

Location 6 – Adjacent to Storm Channel at Entrance to Culvert and South of Location 5

A narrow unlined storm channel exists immediately outside the fence around the baseball field on the Dow Chemical facility. Location 6 was adjacent to the entrance of a culvert connecting this narrow channel with the larger storm channel. The channel was shallow, narrow and full of vegetation. The channel is likely to received storm flows from the former Dowell Schlumberger facility. Therefore, the soils in the channel were analyzed for accumulation of dissolved chemicals and sediments from first flush. Samples were analyzed for TPH and VOC, contaminants reported in the ground water in this vicinity.

Location 7 – Adjacent to Storm Channel at Entrance to Former Dowell Schlumberger Facility

This location was also in the same channel surrounding the baseball field mentioned in location 6. Location 7 is also immediately adjacent to the paved parking area in front of the former Dowell Schlumberger facility outside the fenced areas. Samples from this location are compared with location 6 to help identify possible sources. Samples were analyzed for TPH and VOC, contaminants reported in the ground water in this vicinity.

Location 8 – Intersection of "C" and 7th Streets Inside Exxon Mobil Torrance Refinery

Portions of the SCRRA rail spur entering the Exxon-Mobil Torrance Refinery will be relocated further north passing through the intersection of "C" and 7th streets. Above ground steel storage tank 5000U is located at the northeast corner of the intersection surrounded by bitumen coated soil containment berm. Tank 5000U is reported to contain heavy bunker oil. Approximately 200 feet north on "C" Street are two above ground steel wastewater storage tanks. The intersection paving covers several buried product conveyance and utility lines. In addition, an emergency water line runs east/west along the north side of 7th Street and turns north along the east side of "C" Street. A sample was collected at the northwest corner adjacent to the existing storm drain inlet at the toe of the containment berm. Samples from this location were analyzed for TPH, VOC, CAM Metals and semi-VOC.

Location 9 – Northwest Corner of Former Dowell Schlumberger Facility Parcel

The area bordered by the SCRRA right of way on the north and former Dowell Schlumberger facility on the south was identified as an area of standing water collected from the surrounding properties. EDAW observed BNSF crews in November 2000 storing rail construction materials such as rail ties, rail and ballast in this vicinity. Rain

the previous day prevented EDAW from collecting a sample from the lowest area of the shallow depression. The final sampling location in the field was selected to avoid the saturated soil and overhead power lines but remain close enough to project boundaries and the depression. Samples from this location were analyzed for TPH, VOC, CAM Metals and semi-VOC because the source of runoff was unknown but likely the former Dowell Schlumberger and the types of hazardous materials used by the rail crews are likely solvents, fuels and other products containing metals and semi-VOC.

Location 10 – Intersection of BNSF Railroad and SCRRA right-of-way Rail Spur

This area is close to the intersection of two rail right-of-ways. Rail cars with liquid contents were located on the SCRRA right-of-way rail spur in this vicinity in November 2000 and in March 2001. Samples were analyzed for TPH and VOC, contaminants reported in the ground water in this vicinity.

Location 11 – Drainage Area at Entrance to Soils Pile Area

Soil piles, used piping and a storage tank were reported in the initial environmental site assessment in 1991. Soil piles in addition to asphalt and concrete debris piles were present during March 2001. A sampling location was chosen in the drainage pattern from the soil and debris piles near the entrance to the gated area. Samples were analyzed for TPH and VOC, contaminants reported in the ground water in this vicinity.

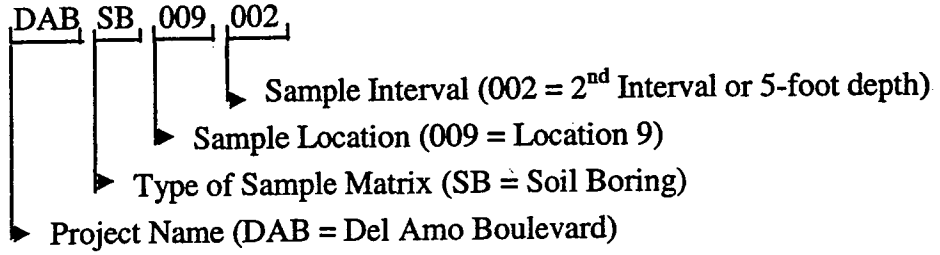
Location 12 – Western Starting Point of Proposed Project

Several abandoned soil boring locations were observed in this vicinity during March 2001. Exxon-Mobil has an active groundwater investigation in this vicinity and has reported non-aqueous phase hydrocarbons beneath this location. Samples were analyzed for TPH and VOC, contaminants reported in the ground water in this vicinity.

Sample Labeling, Collecting, Handling and Shipping Procedures

Sample Labeling

Each sample collected was assigned a unique sample number representing the location of the project name, type of sample matrix, location and depth. For this initial field investigation, five letters followed by six numbers were used for sample numbers. The following schematic depicts a typical sample number and what each item indicates.



Sample Collection Technique

All soil samples were collected by EDAW on March 7, 2001, except for two samples collected by Ramcon on March 15, 2001, within the Exxon-Mobil Torrance Refinery property. Soil borings were completed to six inches using a hand auger, sampled and then advanced to five feet below the surface for another sample using hollow stem augers attached to a Geoprobe Model 5400. At the first sampling depth, loose material was removed from the hole using the stainless steel hand auger before collecting the sample. Each sample was collected using a stainless steel barrel sampler three inches in diameter containing a clear acetate liner 18 inches in length. The barrel sampler was advanced using the hydraulic hammer capability of the Geoprobe equipment. The top six inches of the liner was removed in the field and used for soil descriptions. The remainder of the liner was shipped to the laboratory.

Sample Handling and Shipping

Each liner containing a soil sample was inspected for cracks before attaching a label. Teflon paper was placed over each end and sealed with plastic caps. The sample identification number, project name, date, time sample was collected, sampler's name, analysis requested and sample matrix was added to the label using water proof ink. The sample was placed in a water-tight plastic bag and the bag placed in a cooler filled with ice. Each sample was logged on the Chain-of-Custody. At the end of the day, the Chain-of-Custody was placed in a water-tight plastic bag and affixed inside the cooler to the lid.

Samples collected on March 7, 2001, were transported by regular commercial airline on March 7, 2001, and then delivered to the laboratory the following morning. Samples were repacked in fresh ice before the cooler was sealed with shipping tape just prior to boarding the flight. The samples were kept on ice overnight in the sealed cooler.

Samples collected on March 15, 2001, were transported by overnight delivery service to the laboratory. The samples were packed with fresh ice and sealed in the cooler using shipping tape before relinquishing the cooler to the delivery service. The samples were delivered to the laboratory the following morning.

Analytical Methods

Sequoia Analytical, California ELAP Certificate Number 1624, analyzed all soil samples. Soil samples were analyzed following methods approved by the California Department of Health Services (DHS) and U.S. Environmental Protection Agency (USEPA). Samples were analyzed for total recoverable petroleum hydrocarbons following USEPA method 8015 as modified by DHS. Samples were analyzed for volatile organic compounds following USEPA method 8260A. Samples were analyzed for metals following USEPA methods 6000/7000, choosing the appropriate method for the desired analyte. Samples were analyzed for semi-volatile organic compounds following USEPA method 8270C.

V. INVESTIGATION RESULTS

Analytical Results

Two soil samples were collected at 12 discrete locations. Contaminants were reported at four of the 12 locations: the unpaved parking area across the street from the Dow Chemical Company delivery entrance, adjacent to the unlined storm channel west of the emergency water tanks, at the intersection of "C" and 7th streets inside the Exxon-Mobil Torrance Refinery, and at the northwest corner of the former Dow Schlumberger parcel. A complete list of analytical results is provided in Tables 8 through 11. Figure 9 displays the location of each sample and provides a summary of the contaminants reported at each location.

Conclusions

Analytical results were reviewed for trends in the location and concentration of contaminants that may identify potential sources in the project vicinity or areas needing further evaluation. Contaminants were reported at four locations. Contaminants associated with refined petroleum were reported at each of these locations. Each of the locations are separated from each other by at least 200 feet indicating that sources of the contaminants likely originate from different sources. Generally speaking, when contaminants were reported in one or both samples from the same location, they were reported at lower concentrations in samples collected five feet beneath the surface than in samples collected six inches beneath the surface. This difference in concentration between samples close to the surface and samples further below the surface usually indicate that the quantity of contaminant released was small or the physical properties of the contaminant limit the movement of the contaminant through the soil.

It should be noted that location 5 reported contaminants in the sample collected five feet below the ground surface but not in the sample near the surface. Location 5 was immediately south of the unlined storm channel. The samples collected five feet below grade would closely correspond to the depth of the channel at this location. The sample from this depth was quite moist. Neither location 4, located approximately 150 feet further along the channel, nor location 6, located approximately 20 feet south of location 5, reported contaminants in samples collected at these locations. Based on these observations, it appears that the likely source of contamination is limited to this area and likely infiltrated into the soil from the channel. Samples from these locations indicate that additional effort is needed to better define the extent of contaminants in the unlined channel within the immediate area of location 5.

Location 8 is located inside the Exxon-Mobil Torrance Refinery. Contaminants were reported in both samples with a small difference in concentration between the sample collected near the surface and the sample collected five feet below the surface. No contaminants were reported in samples from location 9, located approximately 100 south southeast immediately adjacent to the SCRRA railway. Samples from these locations indicate that additional effort is needed to fully define the extent of contaminants between

the existing SCRRA railway and the project limits within the Exxon-Mobil fenceline. The area extends approximately 600 feet and is approximately 150 feet at its widest point.

Location 9 was moved the day of sampling because rain had saturated the original location the previous evening. New rail ties were neatly stacked approximately 20 feet south of location 9. The sample collected near the surface from location 9 contained contaminants associated with refined petroleum but also had a concentration of naphthalene higher than would be expected for spilled fuel. Another possible source of naphthalene could be the preservative used for the rail ties stored nearby. No contaminants were reported in the sample collected five feet beneath the surface. Therefore, contamination appears to be shallow in depth at this location. Because the original sample location 9 was moved and the subsequent location contained contaminants, two additional samples should be collected from the original location. In addition, a second location further east but still in the general vicinity of the work/storage area is recommended for better definition of lateral extent in this area.

Location 11 reported bis (2-ethylhexyl)phthalate (DEHP) in the sample collected near the surface. The concentration was slightly above the reporting limit. DEHP is a common lab contaminant and was not reported in the sample five feet below the surface. DEHP is also used in the production of polyvinyl chloride to make the polymer more flexible. While The Dow Chemical Company is a source of DEHP in the project vicinity, Dow's facility is located approximately 3,000 feet east of location 11 and there is no direct route connecting Dow's facility to location 11. Therefore, no additional sampling is recommended for this location.

VI. RECOMMENDATIONS

Laboratory results of the soils samples indicate environmental conditions are present at five locations. Further characterization is recommended for three of these locations: the unlined portion of the storm channel in the vicinity of location 5, the railway work/storage area immediately north of the former Dow Schlumberger fenceline, and the area extending from the existing SCRRA rail spur to the project limits within the Exxon-Mobil Torrance Refinery limits. Two of these locations lie within the parcel boundaries of The Dow Chemical Company and the other location straddles the Exxon-Mobil Torrance Refinery parcel and SCRRA's right of way within the Exxon-Mobil Torrance Refinery parcel. Under RCRA, the current property owners may be required to implement soil remediation prior to the City's acquisition of the road right-of-way.

No further characterization is recommended for location 2 or 11 because the contaminants appear to be limited to the surface. In addition, both of these areas are likely to be excavated or regarded as part of the proposed project.

Additional site characterization is recommended for locations 5, 8 and 9. Based on the fact that contaminated soil is identified within the proposed right-of-way extension for Del Amo Boulevard, EDAW recommends that the City of Torrance enter into an

agreement with both Dow Chemical Company and Exxon-Mobil regarding treatment and disposal of any contaminated soil encountered during roadway work, including in-situ remediation. This agreement should be included in the right of way agreement and would reduce the liability potential for the City of Torrance for the disposal of any contaminated soil encountered during construction activities.

In addition to the agreement, EDAW recommends that the City of Torrance require that the construction contractor hire a certified industrial hygienist to prepare a worker health and safety plan. This plan must conform to the requirements of U.S. Occupational Health and Safety Administration (OSHA) requirements for construction sites with hazardous materials present during construction. EDAW also recommends that the contractor hire an independent consultant to monitor compliance with the plan.

Figures

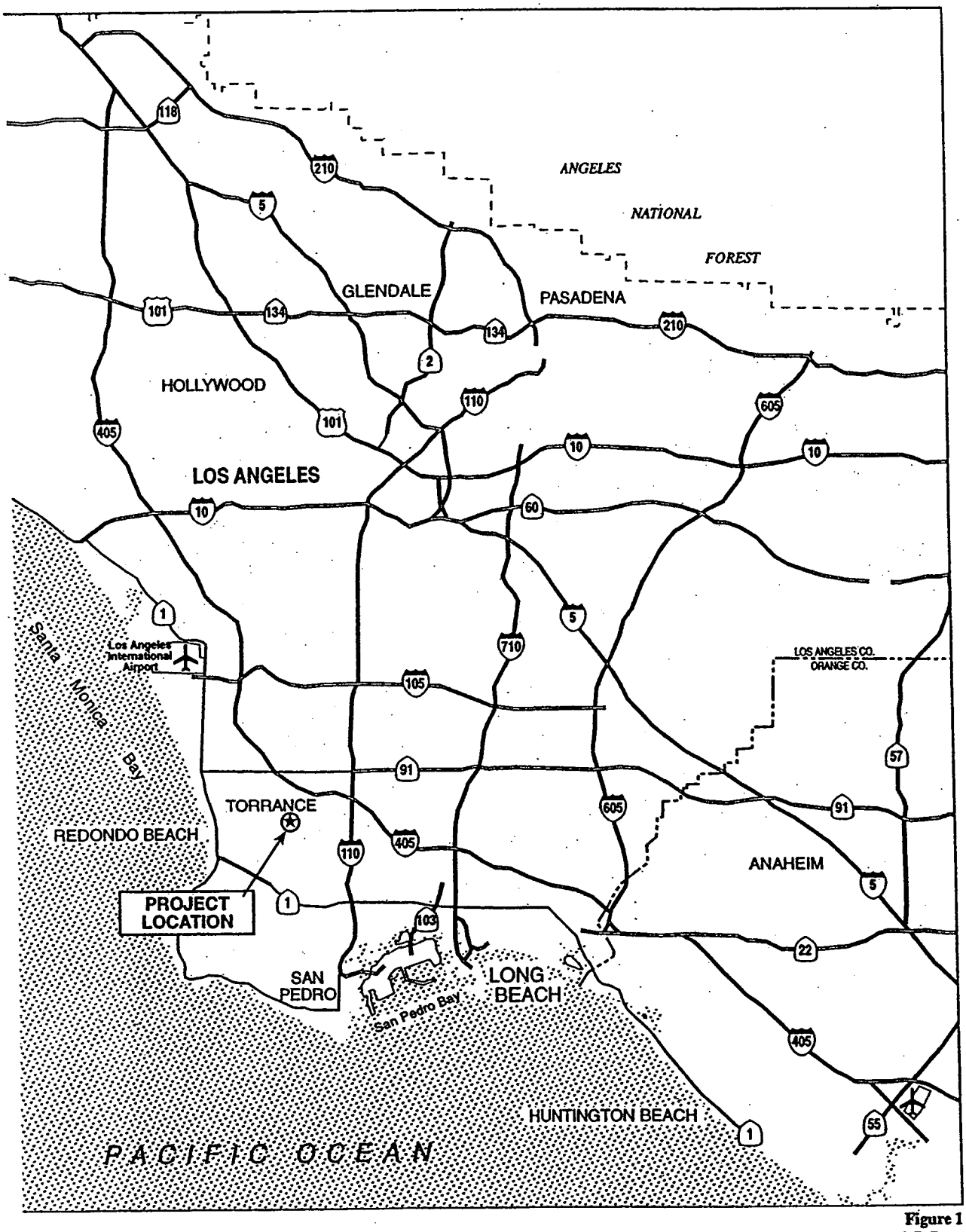
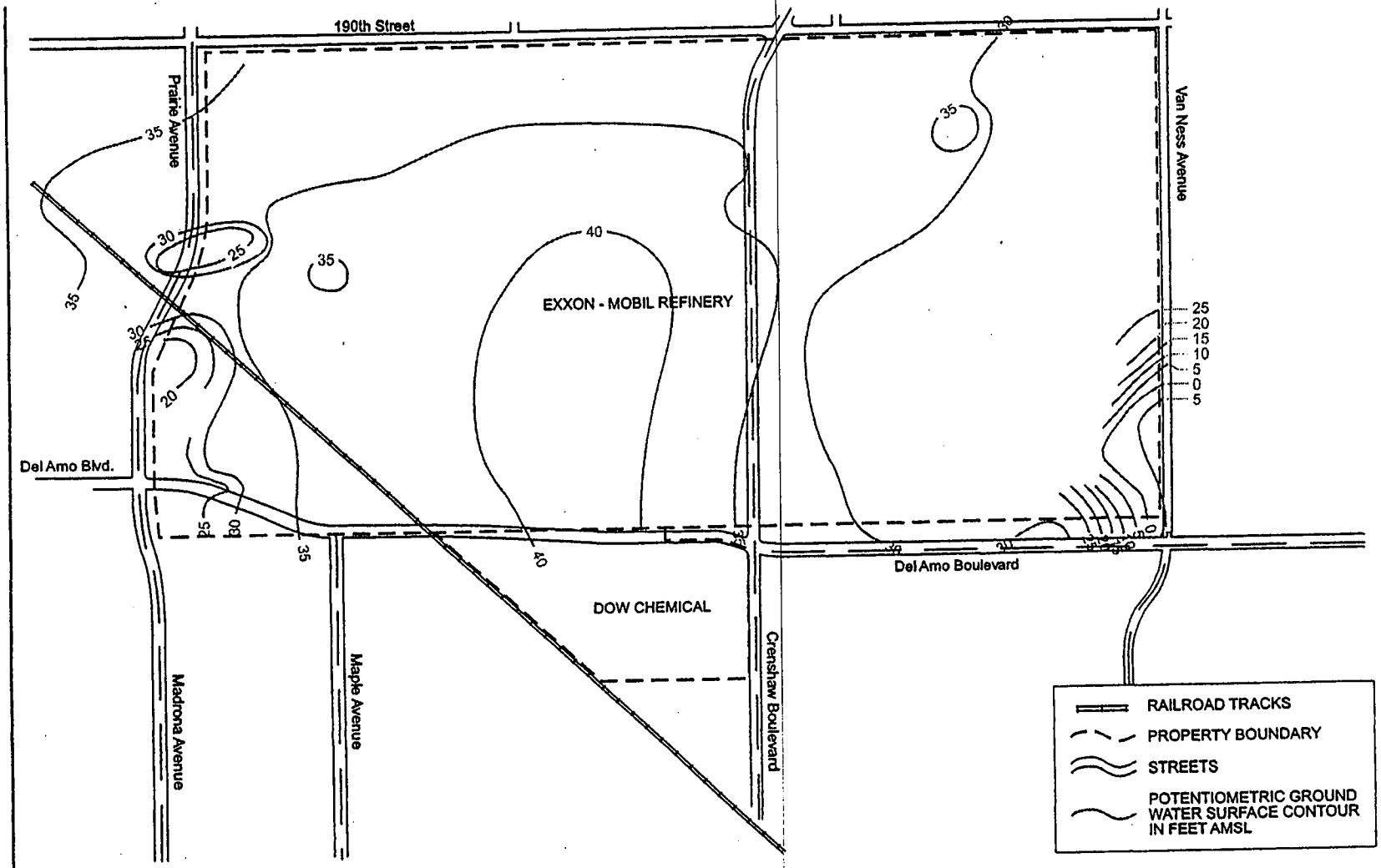


Figure 1
Regional Map

Figure 2
Project Location

Phase II Environmental Assessment
Del Amo Boulevard Extension, Torrance, CA
00156 Del Amo Blvd/pp potentiometeric 6/29/01



Source: England Geosystem Environmental Engineering, 12/25/00

NORTH

0 400 800 Feet

Approximate Scale

QUADRANGLE LOCATION

Figure 3

Perched Zone Potentiometric Surface Map

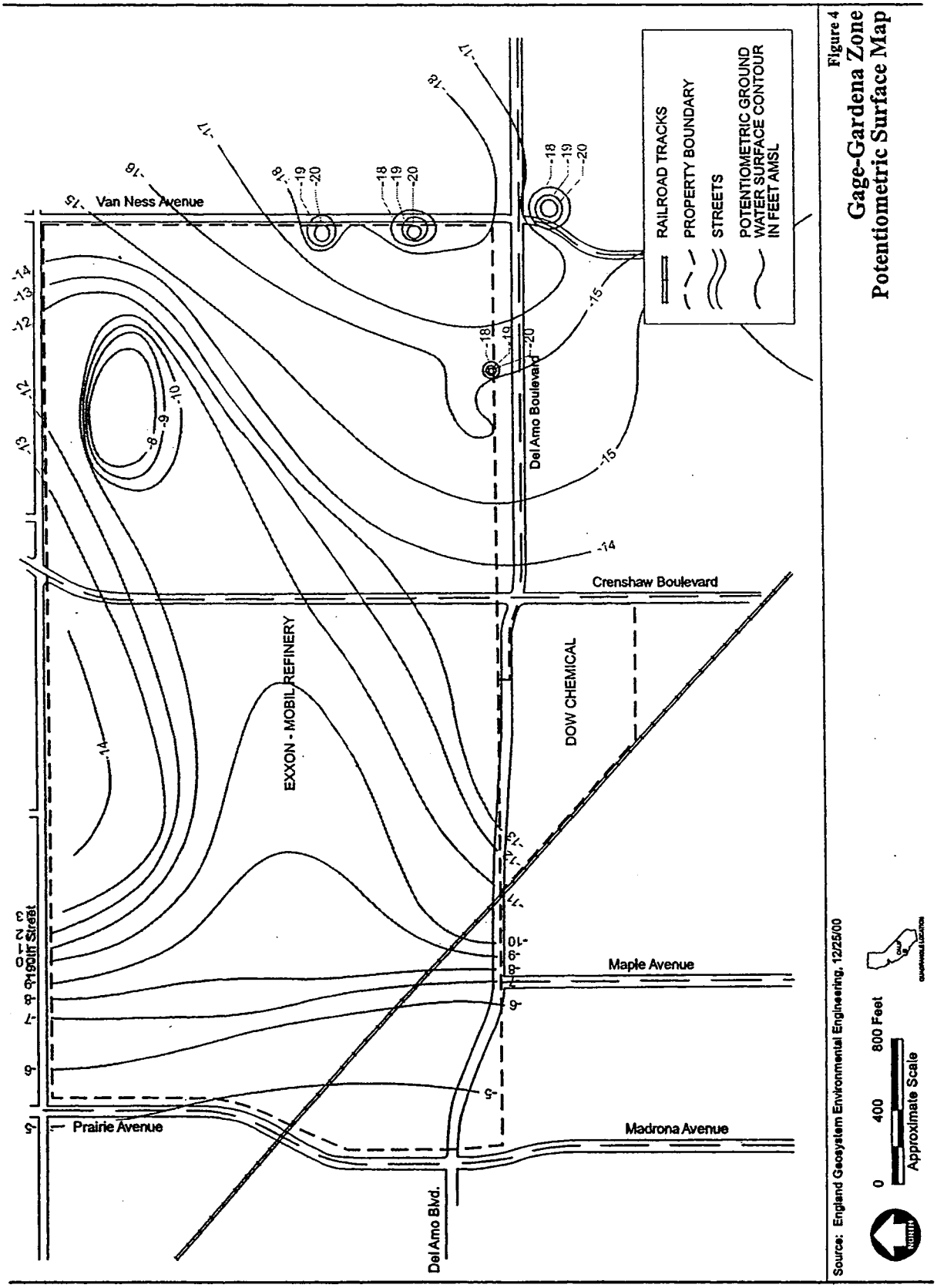
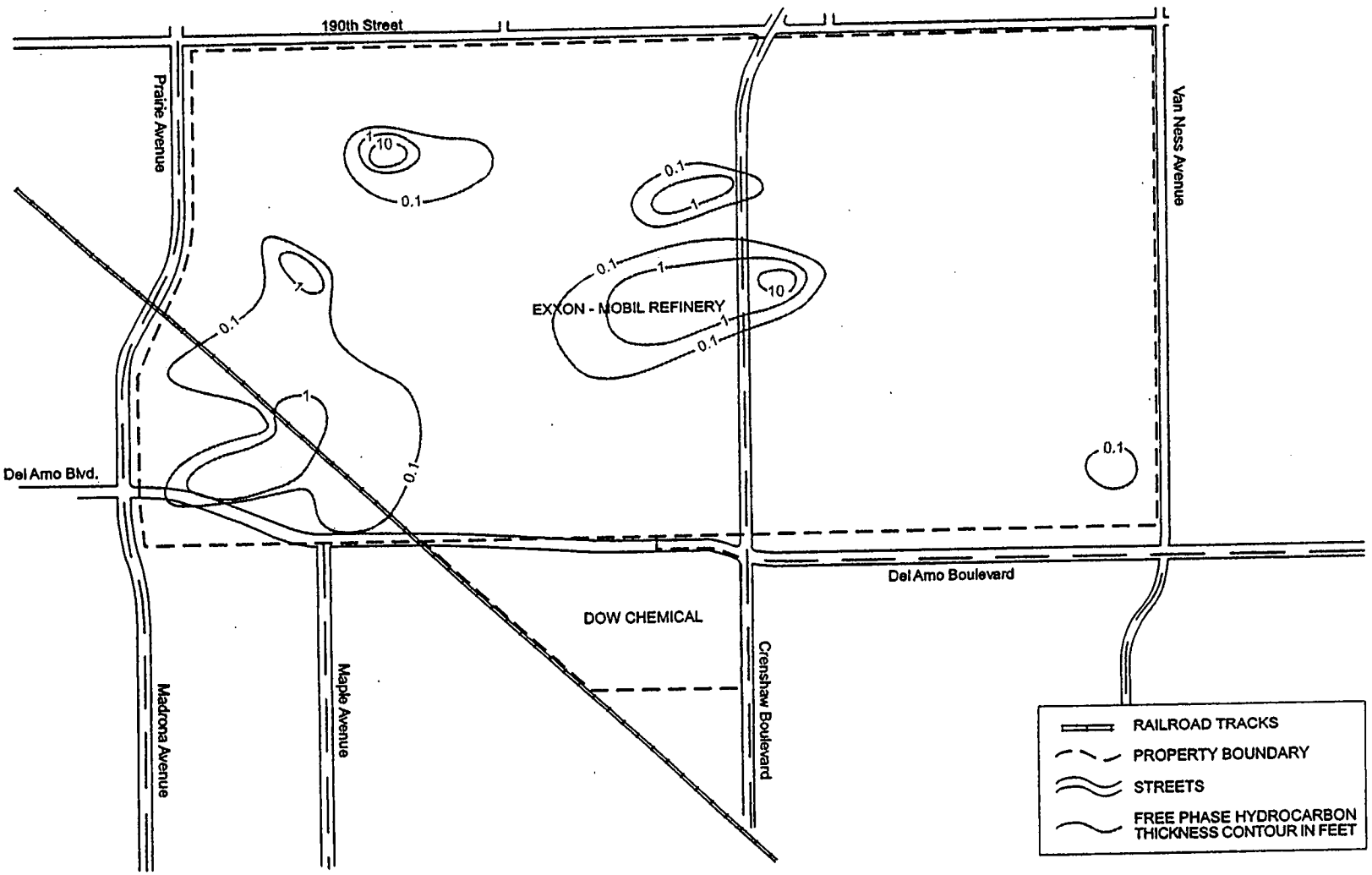


Figure 4
Gage-Gardena Zone
Potentiometric Surface Map

Phase II Environmental Assessment
Del Amo Boulevard Extension, Torrance, CA
00156 Del Amo Blvd/gg potentiometric 6/29/01

Phase II Environmental Assessment
Del Amo Boulevard Extension, Torrance, CA
00156 Del Amo Blvd/pz fhp thickness 6/29/01



Source: England Geosystem Environmental Engineering, 12/25/00

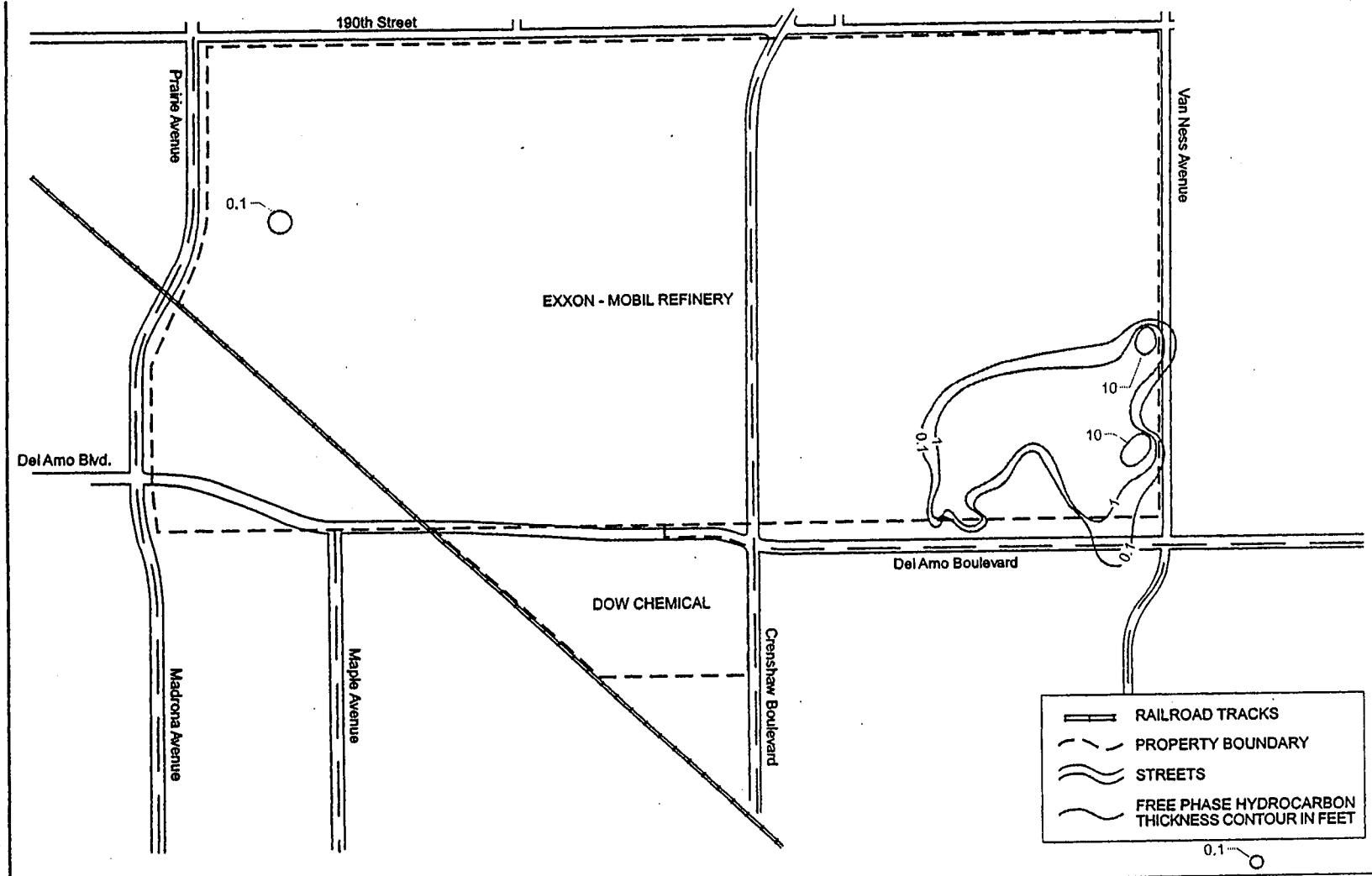
NORTH

0 400 800 Feet
Approximate Scale

QUADRANGLE LOCATION

Figure 5
Perched Zone Non-Aqueous Phase Hydrocarbon Map

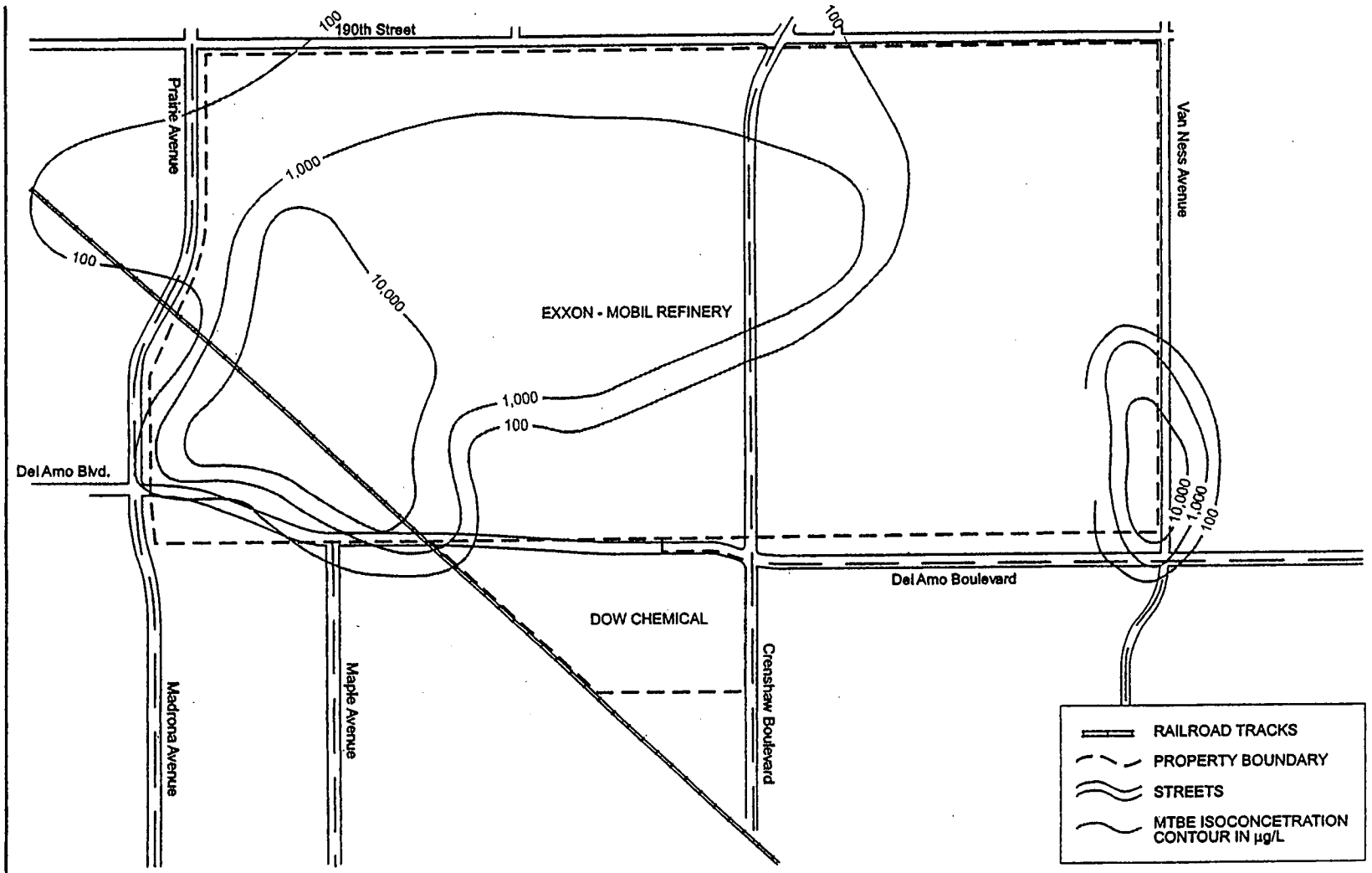
Phase II Environmental Assessment
Del Amo Boulevard Extension, Torrance, CA
00156 Del Amo Blvd/gg_fhp thickness 6/25/01



Source: England Geosystem Environmental Engineering, 12/25/00

Figure 6
Gage-Gardena Zone Non-Aqueous Phase Hydrocarbon Map

Phase II Environmental Assessment
Del Amo Boulevard Extension, Torrance, CA
60156 Del Amo Blvd\pz benzene isoconcentration 6/29/01



Source: England Geosystem Environmental Engineering, 12/25/00

NORTH

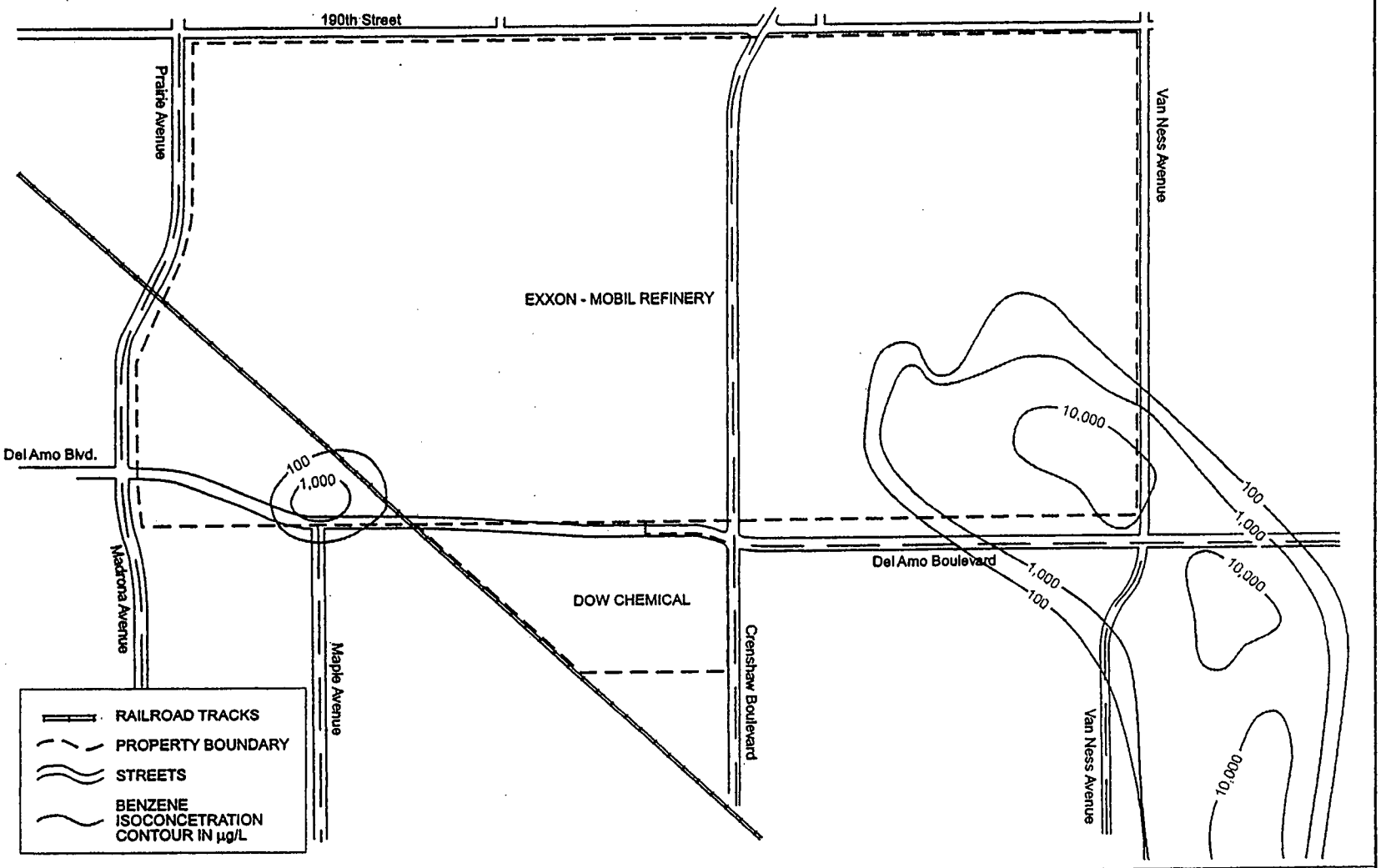
0 400 800 Feet

Approximate Scale

QUADRANGLE LOCATION

Figure 7
Perched Zone
Benzene Isoconcentration Map

Phase II Environmental Assessment
Del Amo Boulevard Extension, Torrance, CA
00156 Del Amo Blvd/gg benzine isoconcentration 6/29/01



Source: England Geosystem Environmental Engineering, 12/25/00

Figure 8
Gage-Gardena Zone
Benzene Isoconcentration Map

Tables

Table 1
Summary of Perched Zone Groundwater TPH Analytical Result - 2000
Concentrations in Micrograms per Liter

Sample ID	Sample Date	TPH as Gasoline (C4-C12) EPA 8015 modified	TPH as Kerosene (C11-C17) EPA 8015 modified
I-06	5/22/00	46,000	34,100
	10/06/00	51,000	35,000
I-07	5/18/00	<100	<500
	10/05/00	102	<500

Table 2
Summary of Perched Zone Groundwater BTEX and MTBE Analytical Result - 2000
Analytical Results in Micrograms per Liter

Sample ID	Sample Date	Benzene EPA 8260B	Toluene EPA 8260B	Ethylbenzene EPA 8260B	o-Xylene EPA 8260B	p/m-Xylene EPA 8260B
C-22	5/19/00	3,000	610	680	1,100	1,900
	10/04/00	2,200	670	580	760	1,300
D-02	5/24/00	6.6	<1.0	<1.0	<1.0	<1.0
	10/04/00	29	4.0	<1.0	2.0	6.1
I-06	5/22/00	11,000	730	1,100	230	1,100
	10/06/00	12,000	1,000	1,300	590	1,700
I-07	5/18/00	<0.5	<1.0	<1.0	<1.0	<1.0
	10/05/00	14	5.4	4.2	3.4	5.1

Table 3
Summary of Perched Zone Groundwater VOC Analytical Results - 2000
Concentrations in Micrograms per Liter

Sample ID	Sample Date	1,2,4-Trimethyl benzene EPA 8260B	1,3,5-Trimethyl benzene EPA 8260B	2-Butanone EPA 8260B	2-Hexanone EPA 8260B	Acetone EPA 8260B	Naphthalene EPA 8260B
C-22	5/19/00	380	110	<2,500	<2,500	<2,500	<1,000
	10/4/00	390	110	<1,250	NR	<1,250	700
D-02	5/24/00	<1.0	<1.0	<25	48	90	<10
	10/4/00	2.9	<1	41	NR	160	<10
I-06	5/22/00	<100	100	<2,500	<2,500	<2,500	<1,000
	10/6/00	260	160	<2,500	NR	<2,500	<1,000
I-07	5/18/00	<1.0	<1.0	<25	<25	<25	<10
	10/5/00	<1	<1	<25	NR	<25	<10

Notes:

NR = Not reported in document.

Table 4
Summary of Perched Zone Groundwater Metals[1] Analytical Result - 2000
Concentrations in Milligrams per Liter

Sample ID	Sample Date	Antimony	Arsenic	Barium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Vanadium	Zinc
C-22	5/19/00	<0.015	0.117	0.0443	<0.005	0.0267	NA	<0.0005	0.0212	<0.005	0.212
	10/4/00	<0.015	0.14	0.0401	0.0173	0.00885	NA	<0.0005	0.00573	<0.005	0.0645
D-02	5/24/00	3	<0.015	1	279	0.0123	NA	0.00122	0.0394	<0.005	0.374
	10/4/00	<0.015	0.137	0.242	177	0.123	NA	0.000546	<0.005	0.201	1.21
I-07	5/18/00	NA	NA	NA	NA	NA	0.0763	NA	NA	NA	NA
	10/5/00	NA	NA	NA	NA	NA	0.0252	NA	NA	NA	NA

Notes:

[1] No analytical method reported in document.
NA = Not analyzed.

Table 5
Summary of Gage-Gardena Groundwater BTEX and MTBE Analytical Result - 2000
Analytical Results in Micrograms per Liter

Sample ID	Sample Date	Benzene EPA 8260B	Toluene EPA 8260B	Ethylbenzene EPA 8260B	o-Xylene EPA 8260B	p/m-Xylene EPA 8260B
C-13R	5/19/00	<0.5	<1.0	<1.0	<1.0	<1.0
	10/4/00	<0.5	<1.0	<1.0	<1.0	<1.0
C-23R	5/17/00	5,900	200	980	20	280
	10/4/00	6,600	260	1,200	<50	540

Table 6
Summary of Gage-Gardena Groundwater VOC Analytical Results - 2000
Concentrations in Micrograms per Liter

Sample ID	Sample Date	1,2,4-Trimethyl benzene EPA 8260B	1,3,5-Trimethyl benzene EPA 8260B	Iso propyl benzene EPA 8260B	n-Propyl benzene EPA 8260B	Naphthalene EPA 8260B	Phenols EPA 420.1
C-13R	5/19/00	<1.0	<1.0	<1.0	<1.0	<10	NR
	10/4/00	<1.0	<1	<1	<1.0	<10	NR
C-23R	5/17/00	28	100	25	100	650	0.2
	10/4/00	200	<50	<50	96	1,000	0.3

Notes:

NR = Not reported in document.

Table 7
Summary of Gage-Gardena Groundwater Metals[1] Analytical Result - 2000
Concentrations in Milligrams per Liter

Sample ID	Sample Date	Barium	Chromium (Total)	Copper	Nickel	Vanadium	Zinc
C-13R	5/19/00	0.0235	0.00635	0.00645	<0.005	0.00634	0.0476
	10/4/00	0.0606	0.0569	0.0419	0.0279	0.0273	0.24
C-23R	5/17/00	0.0755	0.00831	<0.005	<0.005	<0.005	0.0721
	10/4/00	0.0741	<0.005	<0.005	<0.005	<0.005	0.0609

Notes:

[1] No analytical method reported in document.

Table 8
California Department of Health Services LUFT Manual Hydrocarbons Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Purgeable Hydrocarbons EPA 8015m	Benzene EPA 8020	Ethylbenzene EPA 8020	Toluene EPA 8020	Xylenes (total) EPA 8020
DABSB 001 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 001 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 002 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	**0.00866**
DABSB 002 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 003 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 003 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 004 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 004 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 005 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	**0.00508**
DABSB 005 002	5	3/7/01	< 1.00	< 0.00500	**0.00802**	< 0.00500	**0.0206**
DABSB 006 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 006 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 007 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 007 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 008 001	0.5	3/14/01	**3.47**	< 0.00500	**0.0238**	**0.0208**	**0.116**
DABSB 008 002	5	3/14/01	**1.81**	< 0.00500	**0.0269**	**0.0149**	**0.127**
DABSB 009 001	0.5	3/7/01	**2.44**	< 0.00500	**0.136**	**0.00610**	**0.660**
DABSB 009 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 010 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 010 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 011 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 011 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 012 001	0.5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500
DABSB 012 002	5	3/7/01	< 1.00	< 0.00500	< 0.00500	< 0.00500	< 0.00500

Table 9
CAM Metals Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Antimony EPA 6010A	Arsenic EPA 6010A	Barium EPA 6010A	Beryllium EPA 6010A	Cadmium EPA 6010A	Chromium EPA 6010A	Cobalt EPA 6010A	Copper EPA 6010A	Lead EPA 6010A
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 10.0	< 10.0	**29.2**	< 1.00	< 1.00	**9.66**	< 4.00	**5.67**	< 10.0
DABSB 002 002	5	3/7/01	< 10.0	< 10.0	**66.3**	< 1.00	< 1.00	**16.2**	**7.80**	**8.65**	< 10.0
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 10.0	< 10.0	**205**	< 1.00	< 1.00	**64.9**	**10.6**	**30.9**	**145**
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 10.0	< 10.0	**36.1**	< 1.00	< 1.00	**14.7**	< 4.00	**3.81**	< 10.0
DABSB 011 002	5	3/7/01	< 10.0	< 10.0	**30.0**	< 1.00	< 1.00	**12.4**	< 4.00	**5.70**	< 10.0
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 9 (Continued)
CAM Metals Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Mercury EPA 7471A	Molybdenum EPA 6010A	Nickel EPA 6010A	Selenium EPA 6010A	Silver EPA 6010A	Thallium EPA 6010A	Vanadium EPA 6010A	Zinc EPA 6010A
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	**0.0233**	< 4.00	**5.62**	< 10.0	< 1.00	< 10.0	**12.2**	**59.4**
DABSB 002 002	5	3/7/01	**0.0358**	< 4.00	**9.37**	< 10.0	< 1.00	< 10.0	**29.3**	**29.3**
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	**0.377**	< 4.00	**19.1**	< 10.0	< 1.00	< 10.0	**46.2**	**72.9**
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	**0.0317**	< 4.00	**7.70**	< 10.0	< 1.00	< 10.0	**15.3**	**17.8**
DABSB 011 002	5	3/7/01	**0.0400**	< 4.00	**6.42**	< 10.0	< 1.00	< 10.0	**13.8**	**20.8**
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA

Table 10
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Benzene EPA 8260A	Bromo-benzene EPA 8260A	Bromochloro-methane EPA 8260A	Bromodichloro-methane EPA 8260A	Bromoform EPA 8260A	Bromo-methane EPA 8260A	n-Butyl-benzene EPA 8260A	sec-Butyl-benzene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	tert-Butyl-benzene EPA 8260A	Carbon tetrachloride EPA 8260A	Chloro-benzene EPA 8260A	Chloro-ethane EPA 8260A	Chloroform EPA 8260A	Chloro-methane EPA 8260A	2-Chloro-toluene EPA 8260A	4-Chloro-toluene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.200	< 0.500	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Dibromo-chloromethane EPA 8260A	1,2-Dibromo-ethane EPA 8260A	Dibromo-methane EPA 8260A	1,2-Dibromo-3-chloropropane EPA 8260A	1,2-Dichloro-benzene EPA 8260A	1,3-Dichloro-benzene EPA 8260A	1,4-Dichloro-benzene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Dichloro-difluoromethane EPA 8260A	1,1-Dichloro-ethane EPA 8260A	1,2-Dichloro-ethane EPA 8260A	1,1-Dichloro-ethene EPA 8260A	cis-1,2-Dichloro-ethene EPA 8260A	trans-1,2-Dichloro-ethene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	1,2-Dichloro-propane EPA 8260A	1,3-Dichloro-propane EPA 8260A	2,2-Dichloro-propane EPA 8260A	1,1-Dichloro-propene EPA 8260A	Ethyl-benzene EPA 8260A	Hexachloro-butadiene EPA 8260A	Isopropyl-benzene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.100	**0.100**	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	**0.326**	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	p-Isopropyl-toluene EPA 8260A	Methylene chloride EPA 8260A	Naphthalene EPA 8260A	n-Propyl-benzene EPA 8260A	Styrene EPA 8260A	1,1,1,2-Tetra-chloroethane EPA 8260A	1,1,2,2-Tetra-chloroethane EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.100	< 0.500	**21.1**	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.100	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Tetra-chloroethene EPA 8260A	Toluene EPA 8260A	1,2,3-Trichloro-benzene EPA 8260A	1,2,4-Trichloro-benzene EPA 8260A	1,1,1-Trichloro-ethane EPA 8260A	1,1,2-Trichloro-ethane EPA 8260A	Trichloro-ethene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 001 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 002 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 003 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 004 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 005 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 006 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 007 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.100	< 0.100	< 0.100	**0.116**	< 0.100	< 0.100	< 0.100
DABSB 008 002	5	3/14/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 009 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 009 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 010 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 011 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100
DABSB 012 002	5	3/7/01	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100

Table 10 (Continued)
Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Trichloro-fluoromethane EPA 8260A	1,2,3-Trichloro-propane EPA 8260A	1,2,4-Trimethyl-benzene EPA 8260A	1,3,5-Trimethyl-benzene EPA 8260A	Vinyl chloride EPA 8260A	m,p-Xylene EPA 8260A
DABSB 001 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 001 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 002 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 002 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 003 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 003 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 004 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 004 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 005 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 005 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 006 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 006 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 007 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 007 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 008 001	0.5	3/14/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	**0.165**
DABSB 008 002	5	3/14/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	**0.135**
DABSB 009 001	0.5	3/7/01	< 0.500	< 0.100	**0.178**	< 0.100	< 0.500	**1.65**
DABSB 009 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 010 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 010 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 011 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 011 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 012 001	0.5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100
DABSB 012 002	5	3/7/01	< 0.500	< 0.100	< 0.100	< 0.100	< 0.500	< 0.100

Table 11
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Ace-naphthene EPA 8270C	Ace-naphthylene EPA 8270C	Anthracene EPA 8270C	Aniline EPA 8270C	Benzoic acid EPA 8270C	Benzo (a) anthracene EPA 8270C	Benzo (b) fluoranthene EPA 8270C	Benzo (k) fluoranthene EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5	< 0.50	< 1.3	< 1.3
DABSB 002 002	5	3/7/01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.25	< 0.25
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	**0.46**	< 0.25	< 0.25
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.25	< 0.25
DABSB 011 002	5	3/7/01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.25	< 0.25
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA

Table 11 (Continued)
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Benzo (ghi) perylene EPA 8270C	Benzo[a] pyrene EPA 8270C	Benzyl alcohol EPA 8270C	Bis(2-chloroethoxy) methane EPA 8270C	Bis(2-chloroethyl) ether EPA 8270C	Bis(2-chloroisopropyl) ether EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 0.50
DABSB 002 002	5	3/7/01	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	**0.32**	**0.15**	<0.10	< 0.20	< 0.10	< 0.10
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10
DABSB 011 002	5	3/7/01	< 0.10	< 0.10	< 0.10	< 0.20	< 0.10	< 0.10
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA

Table 11 (Continued)
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Bis(2-ethylhexyl) phthalate EPA 8270C	4-Bromophenyl phenyl ether EPA 8270C	Butyl benzyl phthalate EPA 8270C	4-Chloro-aniline EPA 8270C	2-Chloro-naphthalene EPA 8270C	4-Chloro-3-methylphenol EPA 8270C	2-Chloro-phenol EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 2.5	< 1.0	< 2.5	< 2.5	< 0.50	< 0.50	< 0.50
DABSB 002 002	5	3/7/01	< 0.50	< 0.20	< 0.50	< 0.50	< 0.10	< 0.10	< 0.10
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 0.50	< 0.20	< 0.50	< 0.50	< 0.10	< 0.10	< 0.10
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	**0.51**	< 0.20	< 0.50	< 0.50	< 0.10	< 0.10	< 0.10
DABSB 011 002	5	3/7/01	< 0.50	< 0.20	< 0.50	< 0.50	< 0.10	< 0.10	< 0.10
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA

Table 11 (Continued)
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	4-Chlorophenyl phenyl ether EPA 8270C	Chrysene EPA 8270C	Dibenz (a,h) anthracene EPA 8270C	Dibenzo-furan EPA 8270C	Di-n-butyl phthalate EPA 8270C	1,2-Dichloro-benzene EPA 8270C	1,3-Dichloro-benzene EPA 8270C	1,4-Dichloro-benzene EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 1.0	< 0.50	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 1.0
DABSB 002 002	5	3/7/01	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.20
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 0.20	**0.21**	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.20
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.20
DABSB 011 002	5	3/7/01	< 0.20	< 0.10	< 0.10	< 0.10	< 0.50	< 0.10	< 0.10	< 0.20
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA

Table 11 (Continued)
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	3,3'-Dichloro-benzidine EPA 8270C	2,4-Dichloro-phenol EPA 8270C	Diethyl phthalate EPA 8270C	2,4-Dimethyl-phenol EPA 8270C	Dimethyl phthalate EPA 8270C	4,6-Dinitro-2-methylphenol EPA 8270C	2,4-Dinitro-phenol EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 2.5	< 0.50	< 2.5	< 1.0	< 0.50	< 2.5	< 2.5
DABSB 002 002	5	3/7/01	< 0.50	< 0.10	< 0.50	< 0.20	< 0.10	< 0.50	< 0.50
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 0.50	< 0.10	< 0.50	< 0.20	< 0.10	< 0.50	< 0.50
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 0.50	< 0.10	< 0.50	< 0.20	< 0.10	< 0.50	< 0.50
DABSB 011 002	5	3/7/01	< 0.50	< 0.10	< 0.50	< 0.20	< 0.10	< 0.50	< 0.50
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA

Table 11 (Continued)
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	3-Nitro-aniline EPA 8270C	4-Nitro-aniline EPA 8270C	Nitro-benzene EPA 8270C	2-Nitro-phenol EPA 8270C	N-Nitroso-dimethylamine EPA 8270C	4-Nitro-phenol EPA 8270C	N-Nitroso-diphenylamine EPA 8270C	N-Nitrosodi-n-propylamine EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 2.5	< 2.5	< 1.0	< 0.50	< 0.50	< 2.5	< 1.0	< 0.50
DABSB 002 002	5	3/7/01	< 0.50	< 0.50	< 0.20	< 0.10	< 0.10	< 0.50	< 0.20	< 0.10
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 0.50	< 0.50	< 0.20	< 0.10	< 0.10	< 0.50	< 0.20	< 0.10
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 0.50	< 0.50	< 0.20	< 0.10	< 0.10	< 0.50	< 0.20	< 0.10
DABSB 011 002	5	3/7/01	< 0.50	< 0.50	< 0.20	< 0.10	< 0.10	< 0.50	< 0.20	< 0.10
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA	NA

Table 11 (Continued)
Semi-Volatile Organic Compounds Analytical Results
Concentrations in milligrams per kilograms

Sample ID	Depth (ft)	Sample Date	Pentachloro-phenol EPA 8270C	Phenanthrene EPA 8270C	Phenol EPA 8270C	Pyrene EPA 8270C	1,2,4-Trichloro-benzene EPA 8270C	2,4,5-Trichloro-phenol EPA 8270C	2,4,6-Trichloro-phenol EPA 8270C
DABSB 001 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 001 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 002 001	0.5	3/7/01	< 2.5	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 0.50
DABSB 002 002	5	3/7/01	< 0.50	< 0.10	< 0.10	< 0.20	< 0.20	< 0.10	< 0.10
DABSB 003 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 003 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 004 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 004 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 005 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 005 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 006 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 006 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 007 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 007 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 008 001	0.5	3/14/01	< 0.50	**0.17**	< 0.10	< 0.20	< 0.20	< 0.10	< 0.10
DABSB 008 002	5	3/14/01	NA	NA	NA	NA	NA	NA	NA
DABSB 009 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 009 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 010 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 010 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 011 001	0.5	3/7/01	< 0.50	< 0.10	< 0.10	< 0.20	< 0.20	< 0.10	< 0.10
DABSB 011 002	5	3/7/01	< 0.50	< 0.10	< 0.10	< 0.20	< 0.20	< 0.10	< 0.10
DABSB 012 001	0.5	3/7/01	NA	NA	NA	NA	NA	NA	NA
DABSB 012 002	5	3/7/01	NA	NA	NA	NA	NA	NA	NA