

**PRE-CERCLIS SCREENING ASSESSMENT WITH
SAMPLING REPORT
BOCA TEECA GOLF & TENNIS CLUB
AKA: OCEAN BREEZE GOLF COURSE
BOCA RATON, PALM BEACH COUNTY, FLORIDA
COMET SITE ID # 299098**



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BOCA TEECA GOLF & TENNIS CLUB
AKA: Ocean Breeze Golf Course
Palm Beach County, Florida
Pre-CERCLIS Screening Assessment With Sampling Report

1.0 Introduction

This Pre-Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Preliminary Screening Assessment With Sampling Report (PSAWS) for the Boca Teeca Golf & Tennis Club site was prepared by the Florida Department of Environmental Protection (FDEP) Program and Technical Support Section (PTSS). The work for this PSAWS Report was conducted pursuant to the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 United States Code (USC) 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Public Law 99-499, and Florida Statutes (FS), Chapter 403. The purpose of the PSAWS is to determine whether this site warrants listing on the EPA CERCLIS inventory and further CERCLA Superfund action.

Based upon information provided by the FDEP Southeast District, the findings of an initial Pre-CERCLIS Screening Assessment (PSA), dated September 3, 2008, a site reconnaissance, dated December 15, 2009, and the sampling field investigation conducted February 2-3, 2010, the Ground Water Migration and Soil Exposure Pathways were characterized as the principal exposure pathways of concern. Addressing those concerns, this PSAWS Report involved the installation of temporary monitoring wells and soil borings (1) in a presumably unaffected area near the western perimeter of the golf course, (2) in a topographic depression in the southwestern portion of the golf course and (3) in or near the maintenance area in the south-central portion of the golf course. In the course of that work, soil samples were collected from each soil boring, ground water samples were then collected from each monitoring well. In addition, sediment samples were collected from two maintenance area storm drains and an appurtenant retention pond. All samples were subjected to laboratory analysis for volatile organic compounds (VOCs), semi-VOCs, pesticides, and metals. The assessment was jointly conducted by the FDEP PTSS in Tallahassee, Florida and the EPA Science and Ecosystem Support Division (SESD) in Athens, Georgia.

Other activities, associated with the assessment, included:

- Interviewing the site owner and facility personnel
- Using health and safety instrumentation during field activities
- Using Global Positioning System (GPS) equipment to record sampling positions
- Preparing accompanying chain of custody documentation for samples
- Photographing site features and environmental sampling locations
- And applying field work results to the Hazard Ranking system (HRS)¹ model and determining if the site merits inclusion into CERCLIS

¹ Footnote: The HRS is the scoring system used by EPA's Superfund program to assess the relative threat associated with actual or potential releases of hazardous substances. The HRS is the primary screening tool for determining whether a site warrants further CERCLA Superfund action and is considered for inclusion on the National Priorities List (NPL)

2.0 Site Description

2.1 Site Location and Characteristics

Situated within Section 5, Township 47 South, Range 43 East, the address of the site is 5800 NW 2nd Ave in Boca Raton, Palm Beach County, Florida (Figures 1 & 3). The approximate geographic coordinates of the site are 26°23'55.10" N latitude and 80°05'15.78" W longitude. The decimal geographic coordinates are 26.3986 and -80.0877. The site includes the southern half of a 199.83-acre golf course, south of Clint Moore Road, (Figure 1) [1, 2, 3, & 4]. The site is bounded on the west and north by I-95 and Clint Moore Road, respectively. Residences border the site on the east and south (Figure 2). Principal on-site areas of interest include (1) a maintenance area, equipped with small utility building and storm water drainage system (two grated storm drains, a cistern, a corrugated storm water drain pipe, and a nearby storm water retention pond, at the drain pipe outfall); (2) a closed topographic depression—a feature favoring the convergence and internal drainage of golf course runoff to ground water—in the western-most half of the site (Figure 1) [34]; and (3) an irrigation well at a neighboring residence, located directly down-gradient (south) of the depression, where prior ground water sampling of a temporary monitoring well at 5480 NW 5th Avenue revealed an arsenic concentration exceeding its Groundwater Cleanup Target Level (GCTL) (Figure 2) [8 & 10]. The site owners are considering a proposal to develop 225 townhomes and single family homes on the golf course south of Clint Moore Road (Figure 4) [13, 14 & 37].

2.2 Site Ownership/Occupancy

During February 28, 1986, the property was purchased by the Boca Teeca Country Club, Inc., which changed its name to Ocean Breeze Golf & Country Club Inc. on March 31, 2002 [4 & 36]. On December 2, 2004, property ownership was transferred to MCZ Centrum Florida V Owner LLC, the current property owner [3 & 43].

2.3 Operational History

In the process of golf course maintenance, pesticides and arsenic-based herbicides (e.g., monosodium methanearsonate (MSMA) and disodium methanearsonate (DSMA)) were routinely applied to the golf course [9]. More specifically, MSMA and DSMA are arsenic based herbicides and fungicides used to control weeds in turf. MSMA is the monosodium salt of methanearsonic acid (MAA) and is used to fight a wide variety of grass and broad-leaf weeds. DSMA is the disodium salt of MAA. MSMA is reportedly the most common herbicide used at golf courses [45]. These products were handled and stored in the golf course maintenance area [8 & 9]. However, no public records are available, regarding the specific use and disposal methods of hazardous chemicals, during the past 30-plus years of golf course operation [9].

2.4 Regulatory History

Acting on behalf of Save Boca Raton Green Space—a community organization interested in environmental issues, related to the proposed development of the subject property (i.e., increased local traffic, compromised view due to the height of townhouses, and possible arsenic exposure)—TLC Consultants, Inc. installed monitoring wells at two residences on

the perimeter of the Golf course, from which shallow ground water samples were collected . The first sample was collected on November 2, 2007 from the Brumbaugh residence—a property, situated northwest of the golf course maintenance area (5440 NW 3rd Terrace). The second sample was collected on November 5, 2007 from the Pinkocze residence—a property, situated southwest of the golf course maintenance area (5480 NW 5th Avenue) (Figure 2) [2, 6, 7, 8, 9, 10 & 11]. Ground water migration is reportedly directed toward the south, so the latter two samples are generally representative of up-gradient and generally side-gradient conditions, relative to the location of the golf course maintenance area—an area where arsenic-based products were commonly used—near the south end of the golf course [8, 9 & 10]. Analyses of the two samples revealed an arsenic concentration of 7 ug/l in the up-gradient (Brumbaugh residence) sample and an arsenic concentration of 108 ug/l in the side gradient (Pinkocze) sample [8 & 10]. The latter concentration exceeded the 10 ug/l GCTL for arsenic by an order of magnitude and the concentration in the former sample was below the GCTL, suggesting that the arsenic contamination was attributable to the generally interposed golf course maintenance area (Figure 6) [8, 9, 10, 13, 14, & 38]. Consequently, on 6/17/08, the FDEP Southeast District referred the site to the FDEP PTSS for CERCLA site screening [5 & 16]. An initial PSA, completed on September 3, 2008, yielded a recommendation for a follow-up PSAWS [40].

2.5 Waste Characteristics

Arsenic is soluble in water, persistent in the environment, bioaccumulative in fish, and toxic and carcinogenic in humans [44]. Based on animal testing, several studies suggest that MSMA and DSMA cause developmental and reproductive damage [18]. Organic arsenic, such as MSMA, is not considered a carcinogen, but may convert to inorganic forms over time [15].

3.0 Geology/Hydrogeology/Hydrology

3.1 Regional Geology and Hydrogeology

The site is situated on the Atlantic Coastal Ridge province of the Southern (or Distal) geomorphologic Zone of Florida. Specifically positioned in the southeast corner of Palm Beach County—4.87 miles north of Broward County, but approximately 22 miles from the northern border of Palm Beach County—geologic conditions at the site presumably correspond with those characteristic of Broward County. The geologic framework of Broward County includes, in ascending order, the Oldsmar Formation (Fm), Avon Park Fm, Ocala Limestone, Suwannee Limestone, Hawthorn Group, Tamiami Fm, Caloosahatchee Fm, Fort Thompson Fm, Anastasia Fm, Key Largo Limestone, Miami Limestone and undifferentiated sediments [17,19,22, 23 & 26].

The Eocene age Oldsmar Fm consists of primarily limestone interbedded with vuggy dolostone. The lower part of the section is usually more dolomitized than the upper part. Gypsum may occur as thin beds and within pores in some places of the formation [22].

The Avon Park Fm is composed primarily of middle Eocene age fossiliferous limestone interbedded with vuggy dolostone [22].

The upper Eocene age Ocala Limestone consists of muddy (carbonate) to finely pelletal limestone in southern Florida. However, the Ocala Limestone may be absent in portions of southeast Florida [22].

The Suwannee Limestone of Oligocene age consists primarily of variably vuggy and muddy (carbonate) limestone (grainstone to packstone) in southern Florida [22].

The Miocene age Hawthorn Group consists of the Arcadia and Peace River Fms in southern Florida. The Peace River Fm is composed of interbedded quartz sands, clays and carbonates. The carbonates consist of variably sandy, clayey phosphatic limestones and micro- to very fine crystalline, variably sandy phosphatic dolostones. However, the siliciclastic portion of the formation predominates. The Arcadia Fm. consists of predominantly limestone and dolomite with varying amounts of quartz sand, clay and phosphate grains. Dolomite is the most abundant carbonate component of the Arcadia Fm. The Hawthorn Group is found approximately 150 feet below land surface (bls) and is approximately 700 feet thick in the site area [17, 22, 23 & 26].

The Tamiami Fm consists of sediments of upper Pliocene age ranging in composition from pure quartz sand to nearly pure limestone. The limestone is generally white to gray in color. The Tamiami Fm consists of the Pinecrest Sand, Ochopee Limestone and the Buckingham Limestone Members. These facies of the Tamiami Fm occur over a wide area of southern Florida [17,19, 22, 24, & 25].

The Pleistocene age Caloosahatchee Fm consists of fossiliferous quartz sand with variable amounts of carbonate matrix interbedded with variably sandy, shelly limestones. The sediments show a wide range of induration (nonindurated to well indurated). This unit also contains fresh water limestones. However, this unit is not often encountered while drilling in Broward County [17,19, 22, 24 & 25].

The Fort Thompson Fm consists of interbedded shell beds and limestones. The shell beds are generally variably sandy and slightly indurated to nonindurated. The sandy limestones within the Fort Thompson Fm were deposited under both fresh water and marine conditions. The Fort Thompson Fm. thins toward the central and southern portions of the county where it interfingers with the Anastasia Fm [17, 19, 22, 24 & 25].

The Anastasia Fm consists of interbedded quartz sands and coquinoid limestones of Pleistocene age. The sand beds are composed of fine to medium grained, variably fossiliferous, calcareous, quartz sand. The limestone beds (coquina) are composed of mostly broken/abraded mollusk shell fragments, scattered whole shells and quartz sand enclosed in a calcareous matrix. This matrix usually consists of sparry calcite cement. The Anastasia Fm grades into the Miami Limestone south of Boca Raton, Palm Beach County [17, 19, 22, 24 & 25].

The Miami Limestone (Pleistocene age) consists of an oolitic facies and bryozoan facies. The oolitic facies underlies the Atlantic Coastal Ridge southward from southern most Broward County to southern Dade County. The oolitic facies consists of variably sandy limestone composed primarily of oolites with scattered concentrations of fossils. The bryozoan facies underlies and extends west of the western boundary of the oolitic facies. The bryozoan facies

consists of calcareous bryozoan colonies imbedded in a matrix of ooids, pellets and skeletal sand. It is commonly found as a variably sandy, recrystallized, fossiliferous limestone. The upper Eocene age Ocala Limestone consists of muddy (carbonate) to finely pelletal limestone in southern Florida. The upper portion of the Ocala Limestone often contains chert. [17, 19, 22, 24, & 25].

The Key Largo Limestone of Pleistocene age consists of a coralline limestone composed of coral heads in a calcarenite matrix. The undifferentiated sediments (Pamlico Sand) are a late Pleistocene age terrace deposit of marine origin. These sediments are composed of a pale orange to brown, very fine to coarse, mostly medium grained quartz sand with varying amounts of iron oxide. This deposit attains a maximum thickness of 18 feet on the coastal ridge and is generally 2 to 5 feet thick west of the ridge [17, 19, 22, 24, 25 & 26].

3.2 Hydrostratigraphy

The surficial aquifer system, also known as the Biscayne aquifer, of Broward County is composed of limestone, sandstone, shell, limemud, silt, clay and an admixture of these materials. These sediments were deposited during the Pliocene to Pleistocene ages. These units include, in ascending order, the Tamiami Fm, Caloosahatchee Fm, Fort Thompson Fm, Key Largo Limestone, Anastasia Fm, Miami Limestone and the Pamlico Sand. The Biscayne aquifer has been designated by the federal government as a sole-source aquifer [17, 19, 22, 24, & 25].

The surficial aquifer system is thickest along the coast where it attains a maximum thickness of up to 400 feet. The aquifer gradually thins inland to the west and southwest where it is approximately 0 feet thick. The surficial aquifer system is composed of distinct lithologic units exhibiting numerous facies changes caused by changes in sea level. The surficial aquifer system is recharged primarily by rainfall and from area canals. The water table is found approximately 5 to 7 feet below land surface (bls) in the site area. The hydraulic conductivity of the surficial aquifer system varies from 0.1 to greater than 1,000 feet/day and wells near the coast (at least 100 feet deep) yield more than 1,000 gallons per minute (gpm). Water from the Biscayne aquifer is generally hard, calcium bicarbonate type and contains varying quantities of iron. Mineralization increases inland and with depth of the aquifer. The regional groundwater flow direction within the Biscayne aquifer is generally to the east and southeast [17, 19, 22, 24, & 25].

The Intermediate confining unit consists of the relatively impermeable marl; greenish, sandy clay and silt units located in the lower part of the Tamiami Fm (Pliocene age) and the Hawthorn Group (Miocene age). This intermediate confining unit underlies the Biscayne aquifer to a depth 950 feet in Broward County and forms the upper confining unit for the Floridan aquifer system [17, 19, 22, 24, 25 & 26].

The artesian Floridan aquifer system is composed of carbonate and evaporite units ranging from Eocene to Oligocene age. The Floridan aquifer system consists of, in ascending order, the Oldsmar Fm, Avon Park Fm, Ocala Limestone and the Suwannee Limestone. The top of the Floridan aquifer system is found approximately 950 feet bls and the aquifer is about 2,750 feet thick in eastern Broward County. Water from the Floridan aquifer system is highly mineralized and unsuitable for potable water supplies. The water contains more than 1,500 mg/l of chloride, 3,500 mg/l dissolved solids and is sulfurous, hard and corrosive [19, 22, & 25].

3.3 Hydrology

Storm water runoff from the maintenance area drains into a cistern or is piped approximately 260 feet northeastward into a storm water retention pond. Also, a closed topographic depression on the west side of the golf course—receiving convergent runoff from the golf course—internally drains into shallow ground water (Figure 1) [34, 35 & 28]. However, during periods of heavy precipitation and flooding, excessive on-site storm water presumably discharges overland or via ground water discharge, approximately 0.7 miles eastward to the Intracoastal Canal and Atlantic Ocean (Figure 1) [34].

4.0 Exposure Pathway Evaluation

4.1 Ground Water Migration Pathway

Several potable wells are located within 4 miles of the site, the nearest of which is one of three supply wells, operated by the City of Boca Raton, within ½-1 mile of the site (Figure 1) [33]. Operating a total of 56 supply wells—eleven of those wells are located within 1-2 miles of the site; 18 of the wells are located within 2-3 miles of the site; and 13 wells are located within 3-4 miles of the site—the City of Boca Raton provides drinking water for a service population of 115,930. In addition, Highland Beach operates 2 municipal wells, located ½-1 mile from the site for a service population of 4,100. The City of Delray Beach operates 31 municipal supply wells—including three supply wells, located within 2-3 miles of the site and 15 supply wells, located within 3-4 miles of the site—for a service population of 60,200 (Figure 5) [31 & 33]. Colonial Estates Mobile Home Park (MHP) operates one potable supply well, located 2-3 miles from the site, for a service population of 750. A summary of potable wells, identified within 4 miles of the site and their corresponding service populations, is presented in Table 1. All of the wells in the area are finished in the surficial aquifer system [31 & 33]. Given that arsenic was detected at a concentration, exceeding both the GCTL and maximum contaminant level (MCL), in shallow ground water, collected from a monitoring well on neighboring property [5, 8, 10, 38 & 39], the Ground Water Migration Pathway was characterized as the paramount site-related concern.

4.2 Surface Water Migration Pathway

The site is located approximately 0.7 miles west of the estuarine Intracoastal Canal (Figure 1); however, a closed depression within the western portion of the golf course [34] and a stormwater drainage system in the maintenance area [35] limit overland discharge of potentially contaminated on-site storm water to the Intracoastal Canal. The enhanced internal drainage within the topographic depression is conjectural and the storm water drainage system discharges to an appurtenant retention pond or to a cistern near the maintenance area entrance. However, the discharge of potentially-contaminated ground water to surface water is possible during extreme flooding events (e.g., tropical storms and hurricanes). Potentially affected surface water bodies are tidally influenced (Figure 1)

and therefore, subject to periods of continual and extensive dilution. However, given the persistence of site-attributable contaminants, and the long history of golf course operation [9], sub-tidal deposits of such contaminants might persist. Therefore, considering the local abundance of fisheries and sensitive environments, including habitat for endangered and threatened species (e.g., West Indian manatee, and Green and Loggerhead Sea Turtles) [46] the Surface Water Migration Pathway was characterized as a possible concern.

4.3 Soil Exposure Pathway

Arsenic concentrations in an off-site down-gradient monitoring well exceeded the applicable MCL and GCTL and the presence of an on-site source of soil contamination was inferred [10 & 38]. However, the chemical disposition of on-site soil had not been tested. Facility employees perform maintenance at the golf course [35] and numerous homes border the golf course (Figure 2) [2]. In addition, a plan was approved by the City for construction of residential housing on property, now occupied by the maintenance area (Figures 3 & 4) [3, 6, 11, 13, 14 & 37]. Therefore, in the absence of an on-site residential population, the Soil Exposure Pathway does not currently merit concern. Conversely, in the future, an increasing possibility of exposing a residential population to potential onsite contamination is anticipated, so concerns relative to the Soil Exposure Pathway could become significant.

4.4 Air Migration Pathway

The population, collectively residing within a 4-mile radius of the site, is substantial (Table 1) [32]. However, documented contamination, potentially related to the site, is limited to subsurface media and no air samples have been collected. Therefore, the Air Migration Pathway was not characterized as a probable concern.

5.0 Site Screening Team Members:

Member	Position	Agency	E-mail	Telephone
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Nick Huelman	Geoprobe Operator	ESAT- ILS	nheuman@ils-inc.com	706-354-5514
Barbara Alfano	Florida Project Officer	EPA	Alfano.barbara@epa.gov	404-562-8989
Craig Feeny	Technical Reviewer & Author	FDEP	Craig.Feeny@dep.state.fl.us	850-245-8989

6.0 Scope of Work and Methodology

Based on available information and the findings of the initial PSA and site reconnaissance, the groundwater migration pathway, and possibly the soil exposure pathway were identified as possible exposure pathways of concern. This assessment involved the installation of temporary monitoring wells and collection of soil and ground water samples, focusing on the maintenance area (where arsenic-based chemicals were handled and stored) and a topographic depression on the golf course (routinely treated with arsenic-based chemicals). In addition, sediment samples were collected from a maintenance area storm water drainage system (recycling and maintenance area storm drains and a receiving storm water retention pond). All samples were subjected to laboratory analyses of metals, pesticides, semi-volatiles, and VOCs. Analytical results were used to draw investigative conclusions.

The work for the assessment was jointly conducted by the FDEP Program and Technical Support Section (PTSS) in Tallahassee and the EPA Region 4 SESD out of Athens, Georgia. FDEP and EPA work together. It is important to note that EPA is not a contractor responsible for a certain aspect of the job. FDEP and EPA work as a team with committed and shared responsibilities. As part of that committed and shared effort, SESD supplied: (1) the equipment necessary for the installation and sampling of temporary monitor wells. (2) the necessary equipment to collect soil and sediment samples. (3) a Health and Safety Plan for the site; 4) a sample custodian to maintain the

Chain-of-Custody (Forms II-Lite), and (5) assistance with packaging and shipping samples to the designated laboratory for subsequent sample analysis. FDEP was responsible for completing a Work Plan and Quality Assurance Project Plan (QAPP), securing site access, clearing utilities and assisting in field sampling activities. FDEP was also responsible for completing a PSAWS Report and an accompanying HRS site score. All sampling and fieldwork activities were conducted in accordance with FDEP's SOPs and EPA, Region 4, SESD Field Branches Quality System and Technical Procedures [41 & 42]. Fieldwork for this investigation was conducted Tuesday, February 2 to Wednesday, February 3, 2010.

6.1 Initial Site Reconnaissance

During October 2009, members of the FDEP-PTSS and the SESD jointly conducted an initial reconnaissance at the subject site, focusing upon the maintenance area. The topographic depression, storm water drains and storm water retention pond were inspected during the reconnaissance.

6.2 Decontamination of Sampling Equipment

The field sampling equipment was cleaned and decontaminated at EPA's Field Equipment Center (FEC) prior to use at the site. The decontaminated sampling equipment was wrapped in aluminum foil prior to leaving the FEC. As a result, in accordance with the EPA Region 4 Field Branches Quality System and Technical Procedures, no equipment rinse/quality assurance/quality control (QA/QC) samples were collected. Field cleaning of augers, bowls and spoons was not required. Drilling equipment was cleaned prior to departure to the field. However, repeated use of drilling equipment necessitated decontamination between monitoring well locations. A decontamination area was setup for cleaning down-hole components. Portions of the drill rig, directly overlying the borehole, were steam cleaned (soap and high pressure hot water) prior to the commencement of drilling activities.

The standard field cleaning procedure for drilling equipment is as follows:

- Steam-clean with tap water and soap (Liquinox® or phosphate free substitute). Use hand brush if necessary.
- Rinse thoroughly with tap water.
- Remove from decon area and cover with clean, unused plastic.
- The standard cleaning procedures for additional sampling equipment
- Clean with tap water and soap (Liquinox® or phosphate free substitute). Use hand brush if necessary. Equipment may be steam cleaned with soap and high pressure hot water.
- Rinse thoroughly with tap water.
- Rinse with isopropyl alcohol.
- Rinse with analyte-free water.
- Allow air to dry and wrap in aluminum foil.

6.3 Collection of Soil Samples

A total of fourteen soil samples, plus QA/QC duplicates, were collected with decontaminated stainless steel hand augers at seven pre-determinate locations—listed and described in Table 3a and shown in Figure 5, and adjusted when contamination was suspected (e.g., areas exhibiting stained soils and/or low-lying areas, where storm water was likely to collect). At each successive proposed soil sampling location a new decontaminated auger was used to collect surface and subsurface soil samples following the same procedure. At each selected location, a surficial soil (SF) sample was collected from a depth of 0-3 inches. Continuing the borehole, a subsurface (SB) soil sample was then collected from a depth of 2-4 feet. The auger bucket was changed out with a decontaminated bucket, prior to the collection of the subsurface soil samples. Samples meant for analyses of VOCs were directly collected from the auger to minimize volatilization of VOCs. The aliquots for VOC analyses were collected using 5 gram EnCore® Samplers, in accordance with EPA 5035 methodology. A stainless steel spoon was used to homogenize the remainder of the soil in a Pyrex® glass mixing bowl, yielding a soil aliquot, from which samples were collected and distributed among clean individual jars, allocated for alternative (i.e., metals, semivolatiles, or pesticides) analyses. Surface and subsurface background soil samples, were collected approximately 575 feet west-northwest of the Maintenance area—a location deemed to be beyond the influence of the suspected contaminant source areas. A GPS portable field unit was used to record the location of each sample (Table 17).

6.4 Temporary Monitoring Well Installation

Five temporary monitoring wells, including a background well, were installed at five pre-designated locations (Figure 5, Table 3b), using a Geoprobe® direct-push rig and a Geoprobe® Screen Point (SPT) 15 groundwater sampler. The Geoprobe® direct-push rig device is a discrete interval groundwater sampling device that can be pushed to the desired sampling depth interval. The SPT 15 sampler consists of a drive point, screen, sampler sheath and drive head. The sampler is typically pushed, using a 1.25-inch probe rod. The sampler consists of a wire-wound, stainless steel screen with a 1.0-inch outside diameter (OD) and a 0.010-inch screen slot. The minimum inside diameter (ID) of the screen is 0.65 inches. As much as 44 inches of screen can be exposed to the formation for sampling. The stainless steel screen, protected in a steel sheath (1.5 inches OD), is driven to the desired depth for deployment and sampling. A knock-out grout plug is provided at the end of the screen for grouting purposes. Based on the expected depth of the water table, the temporary well sampling interval was between 9 and 14 feet bls with a total estimated depth of approximately 15 feet.

The background well (BTG01GW) was installed near the western perimeter of the golf course (Figure 5). Another temporary monitoring well was installed within the closed topographic depression located north of the Pinkocze residence, midway between the background well and the maintenance area (BTG02GW). The other three temporary wells were installed at the northern central (BTG03GW), southeast (BTG04GW) and southwest (BTG05GW) margins of the maintenance area (Figure 5). The rationale for each temporary monitor well location is presented in Table 3b. A GPS portable field unit

was used to record the location of each well. The GPS locations of the samples were collected using a Garmin® GPSmap76CSx unit, capable of one to five meter accuracy (Table 17).

6.5 Groundwater Sampling

Prior to sampling, each well was purged with a variable speed, Geotech Geopump2 peristaltic pump. At the initiation of purging, an appropriate length of dedicated Teflon® tubing was slowly lowered to the bottom of the well screen. A new piece of Teflon® tubing was used at each well location. The purpose of lowering the tubing to the bottom of the screen is to achieve low turbidity conditions by removing any formation material, which may have entered the well screen during installation. Upon the removal of this material, the tubing was slowly raised through the water column to near the top of the column. The pump speed was adjusted to match the draw down in the well. Field parameters (including temperature, pH, specific conductance, and turbidity) were measured at the initiation of the purging process. The purpose of purging is to remove stagnant water from the well and to mitigate the impacts of installation. Since stagnant water is minimal to non-existent in a temporary well, efforts to remove several volumes of water to replace stagnant water were not necessary. The goal of purging water from a temporary well is to reduce turbidity and remove the water in the area directly affected by the temporary well installation. When field parameters stabilized and water turbidity was less than 10 nephelometric turbidity units (NTUs), the groundwater sample was collected. Stabilization was achieved when the pH remained constant (within 0.1 Standard Unit), specific conductivity varied no more than 10% and temperature was constant for at least three consecutive readings. If parameters had not stabilized or turbidity of less than 10 NTU was not be achieved after a reasonable period of time, continuation of the purging process was left to the discretion of the SESD and FDEP project authorities. Groundwater samples were collected from temporary monitoring wells with as little agitation or disturbance as possible, using Teflon® tubing and a peristaltic pump, and exercising low flow/low stress sampling techniques, in accordance with FDEP's SOP and EPA, Region 4 SESD, Field Branches Quality System and Technical Procedures [41 & 42]. The metals water samples were collected directly from the peristaltic pump discharge tubing. The semi-volatile organic and pesticide samples were collected using the peristaltic pump/vacuum jug assembly. The vacuum jug assembly, which included an amber 1-liter glass sample bottle, was situated between the pump and the well for sample collection. The volatile organic samples were collected with as little agitation or disturbance as possible utilizing the “back flow” method. This involved running the pump at a slower speed and filling the Teflon® tubing with the sample. The pump speed was then further reduced and the direction of flow reversed to push out the sample into the 40 milliliter sample vials. In order to prevent water that may have been in contact with the flexible pump head tubing, the sampler avoided completely emptying the tubing when filling the sample vials.

6.6 Sediment Sampling

Using direct grab technique, a stainless steel scoop (“Ice scoop”) was used to collect four sediment samples—one sample, collected from beneath a storm drain grating in the

maintenance area, one sample, collected beneath a submerged grating in the recycle area, and two samples, collected from the retention pond that receives storm water discharge from the maintenance area (Figure 5; Table 3a). An extension pole (conduit pipe) was attached to the decontaminated stainless steel scoop to facilitate sampling. At each sampling location, three inches of sediment were collected from below the water/sediment surface interface. As the sample was extruded, the sample was carefully removed with a clean, non-reactive utensil and transferred into a container(s). For each sample, enough sediment was collected to fill an appropriate Pyrex® glass mixing bowl with a sufficient volume of sediment to satisfy requirements for laboratory analyses. Samples intended for VOC analyses were not mixed, but were directly collected from the scoop using Encore® samplers, as per EPA Method 5035 protocol. Sediments, destined for all other analyses (metals, semivolatiles, or pesticides), were thoroughly mixed in separate Pyrex® glass mixing bowls to form location-specific composite aliquots, from which samples for each analysis were collected and deposited in separate glass containers. Filled containers were subsequently capped and submitted for laboratory analyses of all selected analytes. A Garmin® GPSmap76CSx portable field unit was used to fix the sediment sample locations (Table 17).

6.7 Laboratory Analyses of Samples

The EPA Region 4 SESD Analytical Support Branch (ASB) in Athens, Georgia was responsible for the all analyses (Appendix C). Soil samples were analyzed for VOCs [EPA 8260C], semi-VOCs [EPA 8270D], metals [CLP ILM05.4 P], mercury [CLP ILM05.4 CV], and pesticides [EPA 8081]. Groundwater samples were analyzed for VOCs [EPA 8260C], semi-VOCs [EPA 8270D], metals [CLP ILM05.4 P], mercury [CLP ILM05.4 CV], and pesticides [EPA 8081]. Sediment samples were analyzed for VOCs [EPA 8260C], semi-VOCs [EPA 8260C], metals [CLP ILM05.4 P], mercury [CLP ILM05.4 CV], and pesticides [EPA 8081]. However, in some cases, equivalent EPA Regional laboratory methods were substituted for these methods.

7.0 Quality Assurance/Quality Control

The field sampling equipment was cleaned and decontaminated at EPA's Field Equipment Center prior to coming to the site. As a result, in accordance with the EPA Region 4 Field Branches Quality System and Technical Procedures, no rinseate quality assurance/quality control (QA/QC) samples were collected. However, duplicate QA/QC samples were collected. A VOC trip blank and metals trip blank were carried on-site and transported with the VOC and metals samples, respectively, to assess possible cross-contamination of the samples during transport. In addition a VOC sand trip blank was prepared and placed in the VOC soil sample cooler. All samples were collected, packaged, preserved and transported in accordance with FDEP's SOP and EPA's Field Branches Quality System and Technical Procedures, protocol. Furthermore, chain-of-custody, using EPA's FORMS II Lite software, was utilized. The locations of all samples were logged, using a Garmin® GPSmap76CSx unit, capable of 1 to 5 meter accuracy, and field notes were recorded in a bound field book [28]. Modifications to the Work Plan were made with joint approval of EPA and FDEP project managers.

8.0 Analytical Results

8.1 Soil Sample Results

Analyses of surface soil samples demonstrated the presence of arsenic—4.2 mg/kg in BTG002SF, 34 mg/kg in BTG003SF, 8.3 mg/kg in BTG005SF, 4.8 mg/kg in BTG006SF, and 3.2 mg/kg BTG007SF—at concentrations exceeding the 2.1 mg/kg State of Florida Soil Cleanup Target Level (SCTL) for residential settings. These levels also exceeded both the EPA residential and industrial Regional Screening Levels (RSLs) of 0.39 mg/kg and 1.6 mg/kg, respectively. Moreover, the arsenic concentration, detected in the sample from northern portion of the maintenance area (BTG003SF), also exceeded the 12 mg/kg SCTL for industrial settings. However, only the arsenic concentrations, detected in the BTG003SF and BTG005SF samples, were sufficient (relative to the 2.0 mg/kg background arsenic concentration) to be characterized as releases² (Table 4a) (Figure 5). No releases of arsenic to subsurface soil samples were documented and no other metals were detected in surface or subsurface soil samples at concentrations, exceeding SCTLs or RSLs for direct exposure or leachability to ground water (Tables 4a & 4b).

Low levels of tetrachloroethylene (PCE) were detected in a surface soil sample (0.45 ug/kg in BTG003SF) and a subsurface soil sample (1.5 ug/kg in BTG003SB) collected from northern portion of the maintenance area (Figure 5). The latter concentration was sufficient to be characterized as a release, but no SCTLs were exceeded. A trace (0.38 ug/kg) of Freon 113 was reported in a trip blank (TB1), but the concentration was inconsequential in that Freon 113 was not detected in any samples at concentrations high enough to be site attributable or to exceed regulatory limits. A similarly inconsequential trace of chloroform (0.56 J ug/kg) was detected at a concentration below regulatory limits in the background surface soil sample (BTG001SF) (Tables 5a & 5b).

Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno (1,2,3-cd) pyrene, phenanthrene, and pyrene were detected at concentrations, characterized as releases, in surface soil samples collected from the northern (BTG003SF), western (BTG006SF) and northwestern (BTG007SF) portions of the maintenance area; as well as midway between the background location and the maintenance area (i.e., BTG002SF) (Table 6a). The concentrations of six carcinogenic polycyclic aromatic hydrocarbons (PAHs)—benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno (1,2,3-cd) pyrene— detected in a surface soil sample (BTG007SF), collected from the northwestern portion of the maintenance area (Figure 5), yielded a Total benzo(a)pyrene (BaP) Toxic Equivalent (TEQ) of 0.193 mg/kg, exceeding the 0.1 mg/kg SCTL (and concomitant 49 % margin of error) for direct exposure in residential settings (Table 6c). Semi-volatiles were not detected in subsurface soil samples (Table 6b).

Several potentially site-attributable pesticides—DDT, DDE, DDD, alpha-chlordane, dieldrin, endosulfan I, endosulfan II, endosulfan sulphate, endrin aldehyde, gamma-

²A release is established when an analyte detected in an on-site sample is undetected in a background sample; or the analyte concentration detected in an onsite sample exceeds 3x the concentration detected in a background sample.

chlordane, and toxaphene—were detected at concentrations establishing releases in several surface soil samples collected from the maintenance area (Figure 5) (Tables 7a & 7b). Moreover, the concentrations of toxaphene (940 and 4100 ug/kg), detected in surface soil samples, collected from the southeast and southwest of the main maintenance building (BGT004SF & BGT005SF, respectively) exceeded the applicable 900 ug/kg SCTL for direct exposure in residential settings. The level of toxaphene in BGT004SF also exceeded the EPA residential RSL of 440 ug/kg. Moreover, the toxaphene level in BGT005SF exceeded both the residential and industrial RSLs of 440 ug/kg and 1,600 ug/kg, respectively. A dieldrin concentration of 1,600 ug/kg was also detected in the latter sample (BGT005SF), exceeding the corresponding 60 ug/kg and 300 ug/kg SCTLs for direct exposure in residential and industrial settings, respectively. The level of dieldrin found in this sample also exceeded the corresponding 30 ug/kg residential RSL and 110 ug/kg industrial RSL. The toxaphene concentration in one subsurface sample collected from the maintenance area (BTG007SB) also exceeded the SCTL for direct exposure in residential settings. In addition, dieldrin concentrations, detected in four surface soil samples and one subsurface soil sample collected from the maintenance area, exceeded the SCTL for leachability to ground water (Figure 5) (Tables 7a & 7b).

8.2 Sediment Sample Results

Sediment samples, collected from the maintenance area drain (BTG011SD) and the storm water retention pond at the drain outfall (BTG09SD), manifested arsenic concentrations (3.7 mg/kg and 7.7 mg/kg, respectively), exceeding the 2.1 mg/kg SCTL for direct exposure in residential settings. The arsenic concentration in the BTG09SD sample also exceeded the applicable 7.24 mg/kg State of Florida Sediment Quality Assessment Guideline (SQAG). Moreover, the arsenic concentration (15 mg/kg) in a sediment sample, collected from a storm drain in the recycling portion of the maintenance area (BTG008SD), exceeded the 12 mg/kg SCTL for direct exposure in an industrial setting (Table 8). In addition, the concentration of carcinogenic PAHs in a sediment sample (BTG011SD), collected from the maintenance area drain (Table 10a), yielded a BaP TEQ (0.132 mg/kg) that did not exceed the applicable SCTL and margin of error for direct exposure in residential settings (Table 10b). Lindane, dieldrin and gamma-chlordane were detected in sediment collected from the maintenance area storm drains and DDD was detected in retention pond sediment. The reported concentrations of those pesticides exceeded corresponding SQAGs, however, no releases to sediment were established, because no background sediment sample was collected (Table 11). Miscellaneous VOCs were also detected in sediment samples, but reported concentrations were far below regulatory limits (Table 9).

8.3 Ground Water Sample Results

Metals analyses of ground water samples, collected from the northern (BTG0003GW) and southeastern (BTG004GW) portions of the maintenance area (Figure 5), documented arsenic concentrations of 590 and 15 ug/l in respectively. While qualifying as releases, both concentrations exceeded the 10 ug/l MCL and GCTL for Primary Standards (Table 12). The turbidity levels of samples collected from the two affected wells were clearly within acceptable limits for metals analyses (Table 16). Low concentrations of PCE (2.5

ug/l) and 1,3-Dichloropropane (4.6 ug/l) were also detected in the BTG0003GW and BTG004GW ground water samples, but neither contaminant concentration exceeded MCLs or GCTLs for Primary Standards (Table 13a). No semi-volatiles or pesticides were detected in ground water samples (Tables 14 & 15)

9.0 Discussion

A privately conducted off-site ground water sampling event in November 2007, revealed arsenic concentrations of 7 ug/l and 108 ug/l in shallow ground water samples collected from residences located generally up-gradient and down-gradient of the golf course maintenance area, respectively. Consequently, the investigators concluded that the interposed golf course maintenance area was the probable source of the arsenic contamination. PSAWS fieldwork, conducted at the subject golf course during February 2010 and presented herein, are supportive of that conclusion, documenting multiple releases of arsenic in the golf course maintenance area, with high concentrations of arsenic in ground water (590 ug/l), surface soil (34 mg/kg) and drainage system sediment (15 mg/kg). Considering that the reported contamination in shallow ground water far exceeds the GCTL and MCL for arsenic and that a large population is supplied with drinking water, drawn from local shallow wells, the Ground Water Migration Pathway merits principal concern. However, in the course of PSAWS fieldwork, analyses of surface soil and sediment samples, collected from the maintenance area, also revealed that concentrations of arsenic, carcinogenic PAHs and pesticide, exceeding SCTLs for direct exposure in industrial and/or residential settings. Arsenic and two pesticides (toxaphene and dieldrin) also exceeded EPA RSLs. Considering that residential development of the maintenance area has been proposed, the Soil Exposure Pathway could also become a significant concern. Consequently, the site warrants a recommendation for inclusion into CERCLIS.

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Figure 1 FDEP Site Location Map based on USGS Topographic Map of University Park Quadrangle

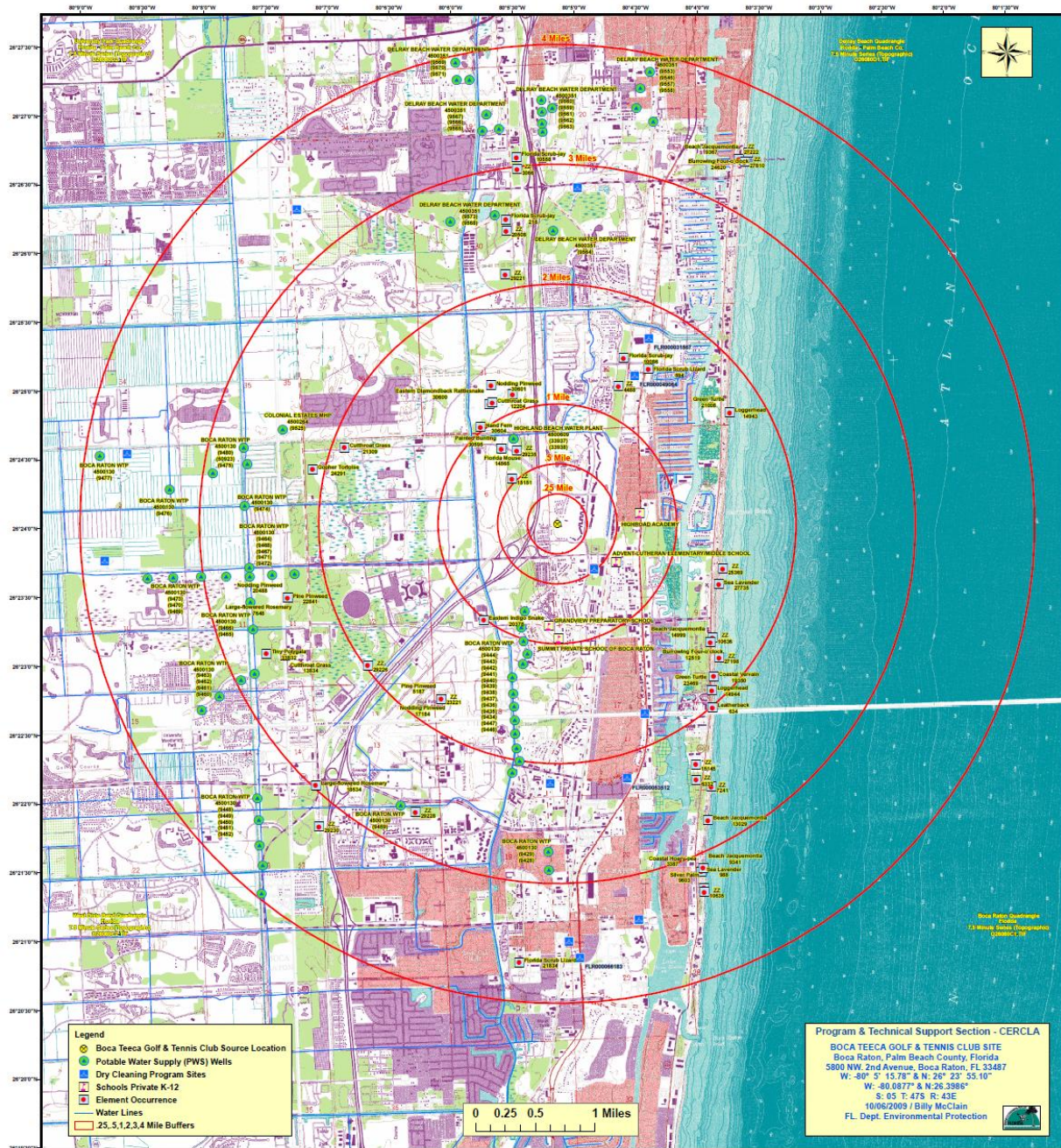


Figure 2 FDEP Site Vicinity Map based upon Palm Beach County Property Appraiser's information [3 & 21]



Figure 3 Proposed Development at Ocean Breeze Golf Course [37]



Figure 4 Boca Teeca PSAWS Sample Location Map [27]



Table 1
Population Distribution
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Distance Interval	Population within Distance Interval
0 to 0.25	653
0.25 to 0.5	1,428
0.5 to 1	5,079
1 to 2	18,356
2 to 3	30,887
3 to 4	45,413

Table 2
 Estimated Number of Potable Wells/ Population Served
 Boca Teeca Golf and Tennis Club
 AKA: Ocean Breeze Golf Course
 Boca Raton, Palm Beach County, Florida
 Surficial Aquifer (AOC)

Well Type	0-1/4 mile	1/4-1/2 mile	1/2-1 mile	1-2 miles	2-3 miles	3-4 miles
City of Boca Raton ¹	--	--	3/6,210	11/22,770	18/37,260	13/26,910
Delray Beach ²	--	--	--	--	3/5,826	15/29,130
Highland Beach ³	--	--	2/4,100	--	--	--
Colonial Estates MHP	--	--	--	--	1/750	--
Totals	--	--	10,310	22,770	44,136	56,040

Estimated Population served within 4 miles = 133,256

Key:

NE=Not Evaluated

AOC=Aquifer of Concern

Footnotes:

¹ City of Boca Raton: The majority of area residents are supplied drinking water by this system. This system consists of 56 wells. The wells are open to the surficial aquifer and located between 0.5 miles to 4 miles of the site. Based on FDEP information, the system currently serves a population of 115,930. No well provides more than 40 % of the system's needs[31,33]. Apportionment = 115,930 people/56 wells = 2,070 people per well.

² The Delray Beach operates 31 municipal wells that are open to the surficial aquifer system. The service population supplied by the system is 60,200[31,33]. The apportioned population per well = 60,200/30 = 1,942 people/well.

³ Highland Beach operates 2 municipal wells that are open to the surficial aquifer system. The service population supplied by the system is 4,100[31,33]. The apportioned population per well = 2,050 people/well.

Table 3a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Soil & Sediment Sample Locations and Rationale *					
Station	Sample Type	Sample Designation	Sample Location	Rationale	Lab Analyses
BTG001	Surface Soil	BTG001SF	575 feet west-northwest of Maintenance area	Background	VOCs, SemiVOCs, pesticides, metals
BTG001	Subsurface Soil	BTG001SB	575 feet west-northwest of Maintenance area	Background	VOCs, SemiVOCs, pesticides, metals
BTG001	Duplicate	BTG001SBDUP	575 feet west-northwest of Maintenance area	QA/QC	VOCs, SemiVOCs, pesticides, metals
BTG002	Surface Soil	BTG002SF	Midway between maintenance area and western margin of Golf course	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG002	Subsurface Soil	BTG002SB	Midway between maintenance area and western margin of Golf course	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG003	Surface Soil	BTG003SF	Northern portion of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG003	Subsurface Soil	BTG003SB	Northern portion of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG004	Surface Soil	BTG004SF	Southeastern margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG004	Subsurface Soil	BTG004SB	Southeastern margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
Key: QA/QC-Quality Control and Quality Assurance VOC = Volatile Organic Compound Surface Soil: collected from uppermost 3 inches Subsurface Soil: collected from depth of 2-4 feet					

Table 3a continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Soil & Sediment Sample Locations and Rationale *					
Station	Sample Type	Sample Designation	Sample Location	Rationale	Lab Analyses
BTG005	Surface Soil	BTG005SF	Southwestern margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG005	Subsurface Soil	BTG005SB	Southwestern margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG006	Surface Soil	BTG006SF	Western margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG006	Subsurface Soil	BTG006SB	Western margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG007	Surface Soil	BTG007SF	Northwestern margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG007	Subsurface Soil	BTG007SB	Northwestern margin of maintenance area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG008	Sediment	BTG008SD	Submerged drain in Recycling portion of maintenance Area	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG009	Sediment	BTG009SD	Retention pond at pipe outfall	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG010	Sediment	BTG010SD	Retention pond 2 feet east of pipe outfall	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
BTG011	Sediment	BTG011SD	Maintenance Area Storm Drain	Potential Release Sample	VOCs, SemiVOCs, pesticides, metals
<p>Key: QA/QC-Quality Control and Quality Assurance VOC = Volatile Organic Compound Surface Soil & Sediment: collected from uppermost 3 inches Subsurface Soil: collected from depth of 2-4 feet</p>					

**Table 3b
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida**

Ground Water Sample Locations and Rationale					
Station	Sample Type	Sample Designation	Sample Location	Rationale	Lab Analyses
BTG01	Ground Water	BTG01GW	575 feet west-northwest of Maintenance area	Background	VOCs, SemiVOCs, pesticides & metals
BTG02	Ground Water	BTG02GW	Midway between maintenance area and western margin of Golf course	Potential Release	VOCs, SemiVOCs, pesticides & metals
BTG03	Ground Water	BTG03GW	North portion of maintenance area	Potential Release	VOCs, SemiVOCs, pesticides & metals
BTG04	Ground Water	BTG04GW	Southeastern margin of maintenance area	Potential Release	VOCs, SemiVOCs, pesticides & metals
BTG05	Ground Water	BTG05GW	Southwestern margin of maintenance area	Potential Release	VOCs, SemiVOCs, pesticides & metals
#R4DART#	QA/QC	BTG-TB1	N/A	Soil Trip Blank	VOCs
#R4DART#	QA/QC	BTG -TB2	N/A	Trip Blank-Water	VOCs
#R4DART#	QA/QC	BTG-TB3	N/A	Metals Blank-Water	Metals
#R4DART#	QA/QC	BTG-TB4	N/A	Preservative Blank-Water	Metals
#R4DART#	QA/QC	BTG -TB5	N/A	Soil Trip Blank- VOCs	VOCs
Key: QA/QC- Quality Assurance and Quality Control VOC = Volatile Organic Compound					

Table 4a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Metals Analyses Results for Surface Soil Samples										
ANALYTE	SCTL			SAMPLES						
	Resident	Industrial	Leach	BTG001 SF*	BTG002 SF	BTG003 SF	BTG004 SF	BTG005 SF	BTG006 SF	BTG007 SF
Mercury	3	17	2.1	0.12 U	0.10 U	0.033 U	0.031 U	0.10 U	0.11 U	0.098 U
Aluminum	80000	N/A	%	470	170	760	1100	270	360	380
Antimony	27	370	5.4	6.9 U	6.4 U	6.4 U	6.3 U	6.2 U	6.5 U	5.9 U
Arsenic	2.1	12	%	2.0	4.2	34	0.81 J	8.3	4.8	3.2
Barium	120	130000	1600	23 U	21 U	13 J	21 U	9.9 J	22 U	9.6 J
Beryllium	120	1400	63	0.58 U	0.53 U	0.54 U	0.52 U	0.51 U	0.54 U	0.49 U
Cadmium	82	1700	7.5	0.58 U	0.18 J	0.39 J	0.22 J	0.63	0.54 U	0.49 U
Calcium	N/A	N/A	N/A	1200	20000	18000	43000	55000	51000	33000
Chromium	210	470	38	16	13	11	8.4	5.3	6.5	6.4
Cobalt	1700	42000	%	5.8 U	5.3 U	5.4 U	5.2 U	5.1 U	5.4 U	4.9 U
Copper	150	89000	%	4.4	6.4	17	3.5	9.1	37	14
Iron	53000	N/A	%	370	630	1400	750	530	1000	1100
Lead	400	1400	%	4.1	6.1	11	6.4	55	5.2	4.7
Magnesium	N/A	N/A	N/A	580 U	200 J	1200	520 U	230 J	380 J	610
Manganese	3500	43000	%	30	75	150	11	57	54	210
Nickel	340	35000	130	4.6 U	4.2 U	1.8 J	4.2 U	4.1 U	4.3 U	3.9 U
Potassium	N/A	N/A	N/A	580 U	530 U	540 U	520 U	510 U	540 U	490 U
Selenium	440	11000	5.2	4.0 U	3.7 U	3.7 U	3.6 U	3.6 U	3.8 U	3.4 U
Silver	410	8200	17	1.2 U	1.1 U	0.66 J	1.0 U	1.0 U	1.1 U	0.98 U
Sodium	N/A	N/A	N/A	580 U	530 U	540 U	190 J	510 U	250 J	490 U
Thallium	6.1	150	2.8	2.9 U	2.6 U	2.7 U	2.6 U	2.6 U	2.7 U	2.4 U
Vanadium	67	10000	880	5.8 U	5.3 U	5.4 U	3.0 J	2.3 J	5.4 U	2.3 J
Zinc	26000	630000	%	6.9 U	12	130	5.7 J	34	17	48

Concentrations reported in mg/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Industrial = Soil Cleanup Target Level for direct exposure in industrial settings
SCTL Leach = Soil Cleanup Target Level for Leachability to ground water % = Leachability values derived using the SPLP
SPLP = Synthetic Precipitation Leaching Procedure

Table 4b
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Metals Analyses Results for Subsurface Soil Samples											
ANALYTE	SCTL			SAMPLES							
	Resident	Industrial	Leach	BTG001 SB*	BTG001 SBDUP	BTG002 SB	BTG003 SB	BTG004 SB	BTG005 SB	BTG006 SB	BTG007 SB
Mercury	3	17	2.1	0.10 U	0.10 U	0.099 U	0.10 U	0.11 U	0.10 U	0.10 U	0.11 U
Aluminum	80000	N/A	%	38	30	21 U	16 J	21 U	20 U	20 U	83
Antimony	27	370	5.4	6.2 U	6.1 U	6.2 U	6.2 U	6.3 U	6.1 U	6.1 U	6.3 U
Arsenic	2.1	12	%	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.96 J
Barium	120	130000	1600	21 U	20 U	21 U	21 U	21 U	20 U	20 U	21 U
Beryllium	120	1400	63	0.52 U	0.51 U	0.52 U	0.52 U	0.53 U	0.51 U	0.51 U	0.53 U
Cadmium	82	1700	7.5	0.52 U	0.51 U	0.52 U	0.52 U	0.53 U	0.51 U	0.51 U	0.53 U
Calcium	N/A	N/A	N/A	520 U	510 U	520 U	520	320 J	350 J	330 J	6800
Chromium	210	470	38	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5
Cobalt	1700	42000	%	5.2 U	5.1 U	5.2 U	5.2 U	5.2 U	5.1 U	5.1 U	5.3 U
Copper	150	89000	%	0.85 J	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	2.5 U	1.7 J
Iron	53000	N/A	%	25	18	4.9 J	12	4.0 J	5.0 J	4.6 J	84
Lead	400	1400	%	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.62 J	1.0 U	1.4
Magnesium	N/A	N/A	N/A	520 U	510 U	520 U	520 U	520 U	510 U	510 U	530 U
Manganese	3500	43000	%	2.3	1.7	1.6 U	1.5 U	1.6 U	1.5 U	1.5 U	4.7
Nickel	340	35000	130	4.1 U	4.1 U	4.1 U	4.1 U	4.2 U	4.1 U	4.1 U	4.2 U
Potassium	N/A	N/A	N/A	520 U	510 U	520 U	520 U	520 U	510 U	510 U	530 U
Selenium	440	11000	5.2	3.6 U	3.6 U	3.6 U	3.6 U	3.7 U	3.6 U	3.6 U	3.7 U
Silver	410	8200	17	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1 U
Sodium	N/A	N/A	N/A	520 U	510 U	520 U	520 U	520 U	510 U	510 U	530 U
Thallium	6.1	150	2.8	2.6 U	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	2.5 U	2.6 U
Vanadium	67	10000	880	5.2 U	5.1 U	5.2 U	5.2 U	5.2 U	5.1 U	5.1 U	5.3 U
Zinc	26000	630000	%	6.2 U	6.1 U	6.2 U	6.2 U	6.3 U	6.1 U	6.1 U	6.3 U

Concentrations reported in mg/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Industrial = Soil Cleanup Target Level for direct exposure in industrial settings
SCTL Leach = Soil Cleanup Target Level for Leachability to ground water % = Leachability values derived using the SPLP
SPLP = Synthetic Precipitation Leaching Procedure

Table 5a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Surface Soil Samples										
ANALYTE	SCTL		SAMPLES							
	Resident	Leach	BTG TB1	BTG001 SF*	BTG002 SF	BTG003 SF	BTG004 SF	BTG005 SF	BTG006 SF	BTG007SF
(m- and/or p-)Xylene	130000	200	1.2 U	1.3 U	1.2 U	1.2 U	1.0 U	0.89 U	1.0 U	0.94 U
1,1,1,2-Tetrachloroethane	2900	10	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1,1-Trichloroethane	730000	1900	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1,2,2-Tetrachloroethane	700	100	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon113)	18 x 10 ⁶	11 x 10 ⁶	0.38 J	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1,2-Trichloroethane	1400	30	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1-Dichloroethane	390000	400	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1-Dichloroethene (1,1-Dichloroethylene)	95000	60	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,1-Dichloropropene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2,3-Trichlorobenzene	650000	4600	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2,3-Trichloropropane	60	0.1	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2,4-Trichlorobenzene	660000	5300	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2,4-Trimethylbenzene	18000	300	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2-Dibromo-3-Chloropropane (DBCP)	700	1	4.8 U	5.3 U	4.8 U	4.8 U	4.1 U	3.5 U	4.1 U	3.8 U
1,2-Dibromoethane	100	1	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2-Dichlorobenzene	880000	17000	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2-Dichloroethane	500	10	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,2-Dichloropropane	600	30	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,3,5-Trimethylbenzene	2000000	1000	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,3-Dichlorobenzene	380000	7000	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,3-Dichloropropane	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
1,4-Dichlorobenzene	6400	2200	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
2,2-Dichloropropane	N/A	N/A	1.2 U	1.3 U	1.2 U	1.2 U	1.0 U	0.89 U	1.0 U	0.94 U
Acetone	11 x 10 ⁶	25000	12 U	14 U	12 U	12 U	10 U	8.9 U	10 U	9.4 U
Benzene	1200	7	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Bromobenzene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Bromochloromethane	95000	600	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Bromodichloromethane	1500	4	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Bromoform	48000	30	12 U	13 U	12 U	12 U	10 U	8.9 U	10 U	9.4 U
Bromomethane	3100	50	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Carbon disulfide	270000	5600	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Carbon Tetrachloride	500	40	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Chlorobenzene	120000	1300	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Chloroethane	3900	50	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Chloroform	400	400	0.60 U	0.56 J	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Chloromethane	4000	10	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
cis-1,2-Dichloroethene	33000	400	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
cis-1,3-Dichloropropene	1400	2	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Cyclohexane	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Dibromochloromethane	1500	3	2.4 U	2.6 U	2.4 U	2.4 U	2.1 U	1.8 U	2.1 U	1.9 U
Dibromomethane	100	0.3	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Dichlorodifluoromethane (Freon12)	77000	44000	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit N/A = Not applicable
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Leach = Soil Cleanup Target Level for Leachability to ground water

Table 5a continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Surface Soil Samples										
ANALYTE	SCTL		SAMPLES							
	Resident	Leach	BTG TB1	BTG001 SF*	BTG002 SF	BTG003 SF	BTG004 SF	BTG005 SF	BTG006 SF	BTG007 SF
Ethyl Benzene	1500000	600	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Hexachlorobutadiene	6200	100	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Isopropylbenzene	220000	200	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Methyl Acetate	6800000	16000	1.2 U	1.3 U	1.2 U	1.2 U	1.0 U	0.89 U	1.0 U	0.94 U
Methyl Butyl Ketone	24000	1400	1.2 U	1.3 U	1.2 U	1.2 U	1.0 U	0.89 U	1.0 U	0.94 U
Methyl Ethyl Ketone	16 x 10 ⁶	17000	1.2 U	1.3 U	1.2 U	1.2 U	1.0 U	0.89 U	1.0 U	0.94 U
Methyl Isobutyl Ketone	4300000	2600	1.2 U	1.3 U	1.2 U	1.2 U	1.0 U	0.89 U	1.0 U	0.94 U
Methyl T-Butyl Ether (MTBE)	4400000	90	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Methylcyclohexane	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Methylene Chloride	17000	20	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
n-Butylbenzene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
n-Propylbenzene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
o-Chlorotoluene	200000	2800	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
o-Xylene	130000	200	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
p-Chlorotoluene	170000	2500	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
p-Isopropyltoluene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
sec-Butylbenzene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Styrene	36 x 10 ⁶	3600	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
tert-Butylbenzene	N/A	N/A	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Tetrachloroethene (Tetrachloroethylene)	8800	30	0.60 U	0.66 U	0.60 U	0.45 J	0.52 U	0.44 U	0.52 U	0.47 U
Toluene	7500000	500	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
trans-1,2-Dichloroethene	53000	700	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
trans-1,3-Dichloropropene	1400	2	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Trichloroethene (Trichloroethylene)	6400	30	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Trichlorofluoromethane (Freon111)	270000	33000	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U
Vinyl chloride	200	7	0.60 U	0.66 U	0.60 U	0.60 U	0.52 U	0.44 U	0.52 U	0.47 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit N/A = Not applicable
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Leach = Soil Cleanup Target Level for Leachability to ground water

Table 5b
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Subsurface Soil Samples											
ANALYTE	SCTL		SAMPLES								
	Resident	Leach	BTG001 SB*	BTG001 SBDUP	BTG002 SB	BTG003 SB	BTG004 SB	BTG005 SB	BTG006 SB	BTG007 SB	BTGTB 5
(m- and/or p-)Xylene	130000	200	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
1,1,1,2-Tetrachloroethane	2900	10	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1,1-Trichloroethane	730000	1900	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1,2,2-Tetrachloroethane	700	100	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon113)	18 x 10 ⁶	11 x 10 ⁶	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1,2-Trichloroethane	1400	30	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1-Dichloroethane	390000	400	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1-Dichloroethene (1,1-Dichloroethylene)	95000	60	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,1-Dichloropropene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2,3-Trichlorobenzene	650000	4600	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2,3-Trichloropropane	60	0.1	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2,4-Trichlorobenzene	660000	5300	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2,4-Trimethylbenzene	18000	300	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2-Dibromo-3-Chloropropane (DBCP)	700	1	5.0 U	5.0 U	4.9 U	5.2 U	4.9 U	4.9 U	5.0 U	5.1 U	4.8 U
1,2-Dibromoethane	100	1	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2-Dichlorobenzene	880000	17000	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2-Dichloroethane	500	10	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,2-Dichloropropane	600	30	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,3,5-Trimethylbenzene	2000000	1000	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,3-Dichlorobenzene	380000	7000	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,3-Dichloropropane	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
1,4-Dichlorobenzene	6400	2200	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
2,2-Dichloropropane	N/A	N/A	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Acetone	11 x 10 ⁶	25000	12 U	13 U	12 U	13 U	12 U	12 U	12 U	13 U	12 U
Benzene	1200	7	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Bromobenzene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Bromochloromethane	95000	600	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Bromodichloromethane	1500	4	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Bromoform	48000	30	12 U	13 U	12 U	13 U	12 U	12 U	12 U	13 U	12 U
Bromomethane	3100	50	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Carbon disulfide	270000	5600	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Carbon Tetrachloride	500	40	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Chlorobenzene	120000	1300	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Chloroethane	3900	50	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Chloroform	400	400	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Chloromethane	4000	10	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
cis-1,2-Dichloroethene	33000	400	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
cis-1,3-Dichloropropene	1400	2	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Cyclohexane	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Dibromochloromethane	1500	3	2.5 U	2.5 U	2.4 U	2.6 U	2.5 U	2.4 U	2.5 U	2.6 U	2.4 U
Dibromomethane	100	0.3	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Dichlorodifluoromethane (Freon12)	77000	44000	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit N/A = Not applicable
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Leach = Soil Cleanup Target Level for Leachability to ground water

Table 5b Continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Subsurface Soil Samples											
ANALYTE	SCTL		SAMPLES								
	Resident	Leach	BTG001 SB*	BTG001 SBDUP	BTG002 SB	BTG003 SB	BTG004 SB	BTG005 SB	BTG006 SB	BTG007 SB	BTGTB 5
Ethyl Benzene	1500000	600	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Hexachlorobutadiene	6200	100	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Isopropylbenzene	220000	200	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Methyl Acetate	6800000	16000	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Methyl Butyl Ketone	24000	1400	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Methyl Ethyl Ketone	16 x 10 ⁶	17000	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Methyl Isobutyl Ketone	4300000	2600	1.2 U	1.3 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Methyl T-Butyl Ether (MTBE)	4400000	90	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Methylcyclohexane	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Methylene Chloride	17000	20	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
n-Butylbenzene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
n-Propylbenzene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
o-Chlorotoluene	200000	2800	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
o-Xylene	130000	200	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
p-Chlorotoluene	170000	2500	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
p-Isopropyltoluene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
sec-Butylbenzene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Styrene	36 x 10 ⁶	3600	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
tert-Butylbenzene	N/A	N/A	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Tetrachloroethene (Tetrachloroethylene)	8800	30	0.62 U	0.63 U	0.61 U	1.5	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Toluene	7500000	500	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
trans-1,2-Dichloroethene	53000	700	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
trans-1,3-Dichloropropene	1400	2	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Trichloroethene (Trichloroethylene)	6400	30	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Trichlorofluoromethane (Freon111)	270000	33000	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U
Vinyl chloride	200	7	0.62 U	0.63 U	0.61 U	0.65 U	0.61 U	0.61 U	0.62 U	0.64 U	0.60 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit N/A = Not applicable
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Leach = Soil Cleanup Target Level for Leachability to ground water

Table 6a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Surface Soil Samples									
ANALYTE	SCTL		SAMPLES						
	Resident	Leach ability	BTG001 SF*	BTG002 SF	BTG003 SF	BTG004 SF	BTG005 SF	BTG006 SF	BTG007 SF
(3-and/or 4-)Methylphenol	N/A	N/A	380 U	360 U	370 U	360 U	350 U	360 U	350 U
1,1-Biphenyl	3000000	200	38 U	36 U	37 U	36 U	35 U	36 U	35 U
2,3,4,6-Tetrachlorophenol	2100000	3200	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,4,5-Trichlorophenol	7700000	70	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,4,6-Trichlorophenol	70000	60	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,4-Dichlorophenol	230000	3	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,4-Dimethylphenol	1300000	1700	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,4-Dinitrophenol	110000	60	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,4-Dinitrotoluene	1200	0.4	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2,6-Dinitrotoluene	1200	0.4	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2-Chloronaphthalene	5 x 10 ⁶	260000	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2-Chlorophenol	130000	700	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2-Methyl-4,6-dinitrophenol	8400	400	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2-Methylnaphthalene	8400	8500	38 U	36 U	37 U	36 U	35 U	36 U	35 U
2-Methylphenol	2.9 x 10 ⁶	300	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2-Nitroaniline	24000	100	380 U	360 U	370 U	360 U	350 U	360 U	350 U
2-Nitrophenol	N/A	N/A	380 U	360 U	370 U	360 U	350 U	360 U	350 U
3,3'-Dichlorobenzidine	2100	300	380 U	360 U	370 U	360 U	350 U	360 U	350 U
3-Nitroaniline	17000	800	380 U	360 U	370 U	360 U	350 U	360 U	350 U
4-Bromophenyl phenyl ether	N/A	N/A	380 U	360 U	370 U	360 U	350 U	360 U	350 U
4-Chloro-3-methylphenol	2.9 x 10 ⁶	300	380 U	360 U	370 U	360 U	350 U	360 U	350 U
4-Chloroaniline	200000	200	380 U	360 U	370 U	360 U	350 U	360 U	350 U
4-Chlorophenyl phenyl ether	270000		380 U	360 U	370 U	360 U	350 U	360 U	350 U
4-Nitroaniline	21000	10	380 U	360 U	370 U	360 U	350 U	360 U	350 U
4-Nitrophenol	560000	300	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Acenaphthene	2400000	2100	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Acenaphthylene	1800000	21000	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Acetophenone	3900000	3900	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Anthracene	21000000	2500	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Atrazine	4300	60	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Benzaldehyde	3300000	4800	78 J	360 U	370 U	360 U	350 U	360 U	350 U
Benzo(a)anthracene	#	800	38 U	36 U	79	36 U	35 U	36 U	110
Benzo(a)pyrene	100 #	8,000	38 U	46	97	36 U	35 U	45	130
Benzo(b)fluoranthene	#	2400	38 U	73	140	36 U	35 U	63	180
Benzo(g,h,i)perylene	2500000	3200000	38 U	38	75	36 U	35 U	37	150
Benzo(k)fluoranthene	#	24000	38 U	53 J	95 J	36 U	35 U	52 J	120 J
Benzyl butyl phthalate	17 x 10 ⁶	310000	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Bis(2-chloroethoxy)methane	250000	63000	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Bis(2-Chloroethyl) Ether	300	0.1	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Bis(2-chloroisopropyl) ether	6000	9	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Bis(2-ethylhexyl) phthalate	72000	3.6 x 10 ⁶	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Caprolactam	N/A	N/A	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Carbazole	49000	200	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Chrysene	#	77000	38 U	56	120	36 U	35 U	50	160
Dibenz(a,h)anthracene	#	700	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Dibenzofuran	320000	15000	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Diethyl phthalate	61 x 10 ⁶	86000	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Dimethyl phthalate	6.9 x 10 ⁸	380000	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Di-n-butylphthalate	8.2 x 10 ⁶	47000	380 U	360 U	370 U	360 U	350 U	360 U	350 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings #Recognized Carcinogen
SCTL Leach = Soil Cleanup Target Level for leachability to ground water

Table 6a continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Surface Soil Samples									
ANALYTE	SCTL		SAMPLES						
	Resident	Leach	BTG001 SF*	BTG002 SF	BTG003 SF	BTG004 SF	BTG005 SF	BTG006 SF	BTG007 SF
Di-n-octylphthalate	1.7 x 10 ⁶	48 x 10 ⁷	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Fluoranthene	2300000	1200000	38 U	55	160	36 U	35 U	52	170
Fluorene	2.6 x 10 ⁶	160000	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Hexachlorobenzene (HCB)	400	2200	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Hexachlorocyclopentadiene (HCCP)	9500	400000	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Hexachloroethane	38000	200	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Indeno (1,2,3-cd) pyrene	#	6,600	38 U	45	83	36 U	35 U	37	150
Isophorone	540000	200	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Naphthalene	55000	1200	38 U	36 U	37 U	36 U	35 U	36 U	35 U
Nitrobenzene	18000	20	380 U	360 U	370 U	360 U	350 U	360 U	350 U
n-Nitroso di-n-Propylamine	80	0.05	380 U	360 U	370 U	360 U	350 U	360 U	350 U
n-Nitrosodiphenylamine/Diphenylamine	180000	400	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Pentachlorophenol	7200	30	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Phenanthrene	2,200,000	250000	38 U	36 U	37 U	36 U	35 U	36 U	42
Phenol	500000	50	380 U	360 U	370 U	360 U	350 U	360 U	350 U
Pyrene	2,400,000	880,000	38 U	47	130	36 U	35 U	46	230

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings #Recognized Carcinogen
SCTL Leach = Soil Cleanup Target Level for leachability to ground water

Table 6b
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Subsurface Soil Samples										
ANALYTE	SCTL		SAMPLES							
	Resident	Leach ability	BTG001 SB*	BTG001 DSB	BTG002 SB	BTG003 SB	BTG004 SB	BTG005 SB	BTG006 SB	BTG007 SB
(3-and/or 4-)Methylphenol	N/A	N/A	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
1,1-Biphenyl	3000000	200	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
2,3,4,6-Tetrachlorophenol	2100000	3200	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,4,5-Trichlorophenol	7700000	70	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,4,6-Trichlorophenol	70000	60	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,4-Dichlorophenol	230000	3	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,4-Dimethylphenol	1300000	1700	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,4-Dinitrophenol	110000	60	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,4-Dinitrotoluene	1200	0.4	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2,6-Dinitrotoluene	1200	0.4	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2-Chloronaphthalene	5 x 10 ⁶	260000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2-Chlorophenol	130000	700	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2-Methyl-4,6-dinitrophenol	8400	400	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2-Methylnaphthalene	8400	8500	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
2-Methylphenol	2.9 x 10 ⁶	300	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2-Nitroaniline	24000	100	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
2-Nitrophenol	N/A	N/A	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
3,3'-Dichlorobenzidine	2100	300	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
3-Nitroaniline	17000	800	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
4-Bromophenyl phenyl ether	N/A	N/A	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
4-Chloro-3-methylphenol	2.9 x 10 ⁶	300	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
4-Chloroaniline	200000	200	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
4-Chlorophenyl phenyl ether	270000		350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
4-Nitroaniline	21000	10	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
4-Nitrophenol	560000	300	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Acenaphthene	2400000	2100	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Acenaphthylene	1800000	21000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Acetophenone	3900000	3900	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Anthracene	21000000	2500	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Atrazine	4300	60	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Benzaldehyde	3300000	4800	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Benzo(a)anthracene	#	800	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Benzo(a)pyrene	100 #	8,000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Benzo(b)fluoranthene	#	2400	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Benzo(g,h,i)perylene	2500000	3200000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Benzo(k)fluoranthene	#	24000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Benzyl butyl phthalate	17 x 10 ⁶	310000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Bis(2-chloroethoxy)methane	250000	63000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
bis(2-Chloroethyl) Ether	300	0.1	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Bis(2-chloroisopropyl) ether	6000	9	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Bis(2-ethylhexyl) phthalate	72000	3.6 x 10 ⁶	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Caprolactam	N/A	N/A	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Carbazole	49000	200	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Chrysene	#	77000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Dibenz(a,h)anthracene	#	700	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Dibenzofuran	320000	15000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Diethyl phthalate	61 x 10 ⁶	86000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings #Recognized Carcinogen
SCTL Leach = Soil Cleanup Target Level for leachability to ground water

Table 6b continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Subsurface Soil Samples										
ANALYTE	SCTL		SAMPLES							
	Resident	Leach ability	BTG001SB*	BTG001DSB	BTG002SB	BTG003SB	BTG004SB	BTG005SB	BTG006SB	BTG007SB
Dimethyl phthalate	1.7 x 10 ⁶	48 x 10 ⁷	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Di-n-butylphthalate	2300000	1200000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Di-n-octylphthalate	2.6 x 10 ⁶	160000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Fluoranthene	400	2200	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Fluorene	9500	400000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Hexachlorobenzene (HCB)	38000	200	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Hexachlorocyclopentadiene (HCCP)	9500	400000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Hexachloroethane	540000	200	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Indeno (1,2,3-cd) pyrene	#	6600	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Isophorone	18000	20	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Naphthalene	80	0.05	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Nitrobenzene	180000	400	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
n-Nitroso di-n-Propylamine	7200	30	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
n-Nitrosodiphenylamine/Diphenylamine	2,200,000	250000	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Pentachlorophenol	500000	50	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Phenanthrene	2,400,000	880,000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U
Phenol	1.7 x 10 ⁶	48 x 10 ⁷	350 U	340 U	340 U	340 U	350 U	340 U	340 U	350 U
Pyrene	2300000	1200000	35 U	34 U	34 U	34 U	35 U	34 U	34 U	35 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings #Recognized Carcinogen
SCTL Leach = Soil Cleanup Target Level for leachability to ground water

Table 6c
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Collective Benzo(a)pyrene-equivalent toxicity of carcinogenic PAHs detected or inferred* in Soil Samples															
ANALYTE	General Criteria			Sample Results for carcinogenic PAHs											
	TEF	SCTLS RES	IND	BTG00 03SF	Q	TEQ	BTG00 07SF	Q	TEQ	BTG00 02SF	Q	TEQ	BTG0006 SF	Q	TEQ
Benzo(a)pyrene	1	0.1	0.7	0.097		0.079	0.130		0.130	0.046		0.046	0.040		0.045
Benzo(a)anthracene	0.1			0.079		0.007	0.110		0.011	0.018	U	0.002	0.036	U	0.002
Benzo(b)flouranthene	0.1			0.140		0.014	0.180		0.018	0.073		0.007	0.063		0.006
Benzo(k)flouranthene	0.01			0.095	J	0.001	0.120	J	0.001	0.053	J	0.001	0.052	J	0.001
Chrysene	0.001			0.120		0.000	0.160		0.000	0.056		0.000	0.050		0.000
Dibenz(a,h)anthracene	1			0.037	U	0.018	0.035	U	0.018	0.028	U	0.028	0.036	U	0.018
Indeno(1,2,3-cd)pyrene	0.1			0.083		0.011	0.150		0.015	0.045		0.005	0.037		0.004
TEQ Sum for Sample						0.130			0.193			0.079			0.076
Concentrations reported in mg/kg Concentrations in Bold establish a release Shaded Cell = Concentration exceeds SCTL, allowing for a 49% margin of error (Level of shading corresponds with applicable setting) J = Estimated Concentration U = Concentration below detection limit SCTL Resident (RES) = Soil Cleanup Target Level for direct exposure in residential settings SCTL Industrial (IND) = Soil Cleanup Target Level for direct exposure in industrial settings *Formed by a common combination of conditions, all seven carcinogenic PAHs are presumed to exist if one of the carcinogenic PAHs is detected. By convention, the presumed concentration of each inferred carcinogenic PAH = ½ the applicable detection limit for that inferred carcinogenic PAH.															

Table 7a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Pesticide Analyses Results for Surface Soil Samples										
ANALYTE	SCTL			SAMPLES						
	Resident	Industrial	Leach	BTG001 SF*	BTG002 SF	BTG003 SF	BTG004 SF	BTG005 SF	BTG006 SF	BTG007 SF
4,4'-DDD (p,p'-DDD)	4200	22000	5800	40	23	11 U	22	900	11	10 U
4,4'-DDE (p,p'-DDE)	2900	15000	18000	5.7 U	1.1 U	3.9 U	5.4 U	18	1.1 U	1.0 U
4,4'-DDT (p,p'-DDT)	2900	15000	11000	14 U	2.7 U	4.1	25 J	260 U	2.7 U	2.6 U
Aldrin	60	300	200	5.7 U	1.1 U	1.1 U	5.4 U	16 U	1.1 U	1.0 U
alpha-BHC	100	600	0.3	2.9 U	0.54 U	0.55 U	2.7 U	7.9 U	0.54 U	0.51 U
alpha-Chlordane	2800	14000	9600	5.7 U	1.1 U	6.8 J	17 J	61 J	1.1 U	5.1 U
beta-BHC	500	2400	10	5.7 U	1.1 U	2.4 J	5.4 U	16 U	1.1 U	5.1 U
delta-BHC	24000	290000	200	5.7 U	1.1 U	1.1 U	5.4 U	16 U	1.1 U	1.0 U
Dieldrin	60	300	2	5.7 U	1.1 U	13	26	1600	1.1 U	6.1 J
Endosulfan I (alpha)	450000	7600000	380	5.7 U	1.1 U	2.4 J	5.4 U	19 J	1.1 U	1.0 U
Endosulfan II (beta)	450000	7600000	380	11 U	2.2 U	11 U	28 J	120 J	2.1 U	10 U
Endosulfan Sulfate	450000	7600000	380	14 U	2.7 U	2.8 U	22 J	260 U	2.7 U	2.6 U
Endrin	25000	510000	1000	11 U	2.2 U	11 U	11 U	210 U	2.1 U	2.1 U
Endrin aldehyde				14 U	2.7 U	2.8 U	27 J	260 U	2.7 U	2.6 U
Endrin ketone				14 U	2.7 U	2.8 U	14 U	260 U	2.7 U	2.6 U
gamma-BHC (Lindane)	700	2500	9	2.9 U	0.54 U	0.55 U	2.7 U	7.9 U	0.54 U	0.51 U
gamma-Chlordane	2800	14000	9600	5.7 U	1.1 U	7.3 J	19	81	1.1 U	1.5 J
Heptachlor	200	1000	23000	4.3 U	0.81 U	1.8 J	4.1 U	12 U	0.81 U	0.77 U
Heptachlor epoxide	100	500	600	5.7 U	1.1 U	5.5 U	5.4 U	16 U	1.1 U	1.0 U
Methoxychlor	420000	8800000	160000	29 U	5.4 U	5.5 U	33 J	530 U	5.4 U	5.1 U
Toxaphene	900	4500	31000	150	110 U	110 U	940	4100	110 U	100 U

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident (RES) = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Industrial (IND) = Soil Cleanup Target Level for direct exposure in industrial settings
SCTL Leach = Soil Cleanup Target Level for leachability to ground water

Table 7b
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Pesticide Analyses Results for Subsurface Soil Samples											
ANALYTE	SCTL			SAMPLES							
	Resident	Industrial	Leach	BTG001 SB*	BTG001 DSB	BTG002 SB	BTG003 SB	BTG004 SB	BTG005 SB	BTG006 SB	BTG007 SB
4,4'-DDD (p,p'-DDD)	4200	22000	5800	2.2	2.2	2.0 U	3.3	7.1	120	3.2	84 U
4,4'-DDE (p,p'-DDE)	2900	15000	18000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	42 U
4,4'-DDT (p,p'-DDT)	2900	15000	11000	2.6 U	2.6 U	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	100 U
Aldrin	60	300	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2 U
alpha-BHC	100	600	0.3	0.52 U	2.7	0.51 U	0.52 U	0.52 U	0.52 U	0.51 U	2.6 U
alpha-Chlordane	2800	14000	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2 U	1.0 U	42 U
beta-BHC	500	2400	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2 U
delta-BHC	24000	290000	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2 U
Dieldrin	60	300	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	29	1.0 U	42 U
Endosulfan I (alpha)	450000	7600000	380	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2 U	1.0 U	42 U
Endosulfan II (beta)	450000	7600000	380	2.1 U	2.1 U	2.0 U	2.1 U	2.1 U	6.3	2.1 U	84 U
Endosulfan Sulfate	450000	7600000	380	2.6 U	2.6 U	2.5 U	2.6 U	2.6 U	13 U	2.6 U	100 U
Endrin	25000	510000	1000	2.1 U	2.1 U	2.0 U	2.1 U	2.1 U	10 U	2.1 U	84 U
Endrin aldehyde				2.6 U	2.6 U	2.5 U	2.6 U	2.6 U	13 U	2.6 U	100 U
Endrin ketone				2.6 U	2.6 U	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	100 U
gamma-BHC (Lindane)	700	2500	9	0.52 U	0.52 U	0.51 U	0.52 U	0.52 U	0.52 U	0.51 U	2.6 U
gamma-Chlordane	2800	14000	9600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.2	1.0 U	42 U
Heptachlor	200	1000	23000	0.78 U	0.78 U	0.76 U	0.77 U	0.78 U	0.78 U	0.77 U	3.9 U
Heptachlor epoxide	100	500	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	42 U
Methoxychlor	420000	8800000	160000	5.2 U	5.2 U	5.1 U	5.2 U	5.2 U	26 U	5.1 U	210 U
Toxaphene	900	4500	31000	100 U	100 U	100 U	100 U	100 U	180	100 U	1400

Concentrations reported in ug/kg
Concentrations in **Bold** establish a release * Background Sample
Shaded Cell = Concentration exceeds SCTL (Level of shading corresponds with applicable setting)
J = Estimated Concentration U = Concentration below detection limit
SCTL Resident (RES) = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Industrial (IND) = Soil Cleanup Target Level for direct exposure in industrial settings
SCTL Leach = Soil Cleanup Target Level for leachability to ground water

Table 8
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Metals Analyses Results for Sediment Samples									
ANALYTE	Regulatory Limit/Guideline			SAMPLES					
	SCTL Resident	SCTL Industrial	SQAG (TEL)	BTG008 SD	BTG009 SD	BTG010 SD	BTG011 SD	BTGTB 3	BTGTB 4
Mercury	3	17	0.13	0.13 U	0.14 U	0.13 U	0.11 U	0.20 U	0.073 U
Aluminum	80000	N/A	N/A	180	550	180	280	200 U	200 U
Antimony	27	370	N/A	7.7 U	8.0 U	7.5 U	6.8 U	60 U	60 U
Arsenic	2.1	12	7.24	15	7.7	0.83 J	3.7	10 U	10 U
Barium	120	130000	N/A	26 U	27 U	25 U	23 U	200 U	200 U
Beryllium	120	1400	N/A	0.64 U	0.67 U	0.62 U	0.57 U	5.0 U	5.0 U
Cadmium	82	1700	0.68	0.64 U	0.67 U	0.62 U	0.40 J	5.0 U	5.0 U
Calcium	N/A	N/A	N/A	22000	2800	640	47000	5000 U	5000 U
Chromium	210	470	52.3	2.1	1.8	3.1	5.1	10 U	10 U
Cobalt	1700	42000	N/A	6.4 U	6.7 U	6.2 U	5.7 U	50 U	50 U
Copper	150	89000	18.7	5.6	14	16	12	25 U	25 U
Iron	53000	N/A	N/A	1900	3000	240	1200	100 U	100 U
Lead	400	1400	30.2	2.1	1.1 J	1.7	4.7	10 U	10 U
Magnesium	N/A	N/A	N/A	640 U	660 U	620 U	470 J	5000 U	5000 U
Manganese	3500	43000	N/A	27	9.5	6.8	48	15 U	15 U
Nickel	340	35000	15.9	5.1 U	5.3 U	5.0 U	4.6 U	40 U	40 U
Potassium	N/A	N/A	N/A	640 U	660 U	620 U	570 U	5000 U	5000 U
Selenium	440	11000	N/A	4.5 U	4.7 U	4.4 U	4.0 U	35 U	35 U
Silver	410	6200	0.73	1.3 U	1.3 U	1.2 U	1.1 U	10 U	10 U
Sodium	N/A	N/A	N/A	640 U	660 U	620 U	570 U	5000 U	5000 U
Thallium	6.1	150	N/A	3.2 U	3.3 U	3.1 U	2.8 U	25 U	25 U
Vanadium	67	10000	N/A	6.4 U	6.7 U	6.2 U	2.4 J	50 U	50 U
Zinc	26000	630000	124	140	14	12	280	60 U	60 U

Concentrations reported in mg/kg Concentrations in **Bold** establish a release Shaded Cell = Concentration exceeds SCTL
TEL: Threshold Effects level SQAG: Sediment Quality Assessment Guideline
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
SCTL Industrial = Soil Cleanup Target Level for direct exposure in industrial settings
J = Estimated Concentration
U = Concentration below detection limit

Table 9
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Sediment Samples						
ANALYTE	Regulatory Limit/Guideline		SAMPLES			
	SCTL Resident	SQAG (TEL)	BTG008 SD	BTG009 SD	BTG010 SD	BTG011 SD
(m- and/or p-)Xylene	130000	N/A	0.69 J	1.2 U	1.2 U	NS
1,1,1,2-Tetrachloroethane	2900	N/A	0.61 U	0.61 U	0.62 U	NS
1,1,1-Trichloroethane	730000	N/A	0.61 U	0.61 U	0.62 U	NS
1,1,1,2,2-Tetrachloroethane	700	N/A	0.61 U	0.61 U	0.62 U	NS
1,1,2-Trichloro-1,2,2-Trifluoroethane(Freon 113)	18 x 10 ⁶	N/A	0.61 U	0.61 U	0.62 U	NS
1,1,2-Trichloroethane	1400	N/A	0.61 U	0.61 U	0.62 U	NS
1,1-Dichloroethane	390000	N/A	0.61 U	0.61 U	0.62 U	NS
1,1-Dichloroethene(1,1-Dichloroethylene)	95000	N/A	0.61 U	0.61 U	0.62 U	NS
1,1-Dichloropropene	N/A	N/A	0.61 U	0.61 U	0.62 U	NS
1,2,3-Trichlorobenzene	650000	N/A	0.61 U	0.61 U	0.62 U	NS
1,2,3-Trichloropropane	60	N/A	0.61 U	0.61 U	0.62 U	NS
1,2,4-Trichlorobenzene	660000	N/A	0.61 U	0.61 U	0.62 U	NS
1,2,4-Trimethylbenzene	18000	N/A	4.4	0.61 U	0.62 U	NS
1,2-Dibromo-3-Chloropropane (DBCP)	700	N/A	4.8 U	4.9 U	5.0 U	NS
1,2-Dibromoethane (EDB)	100	N/A	0.61 U	0.61 U	0.62 U	NS
1,2-Dichlorobenzene	880000	N/A	0.61 U	0.61 U	0.62 U	NS
1,2-Dichloroethane	500	N/A	0.61 U	0.61 U	0.62 U	NS
1,2-Dichloropropane	600	N/A	0.61 U	0.61 U	0.62 U	NS
1,3,5-Trimethylbenzene	2000000	N/A	1.7	0.61 U	0.62 U	NS
1,3-Dichlorobenzene	380000	N/A	0.61 U	0.61 U	0.62 U	NS
1,3-Dichloropropane	N/A	N/A	0.61 U	0.61 U	0.62 U	NS
1,4-Dichlorobenzene	6400	N/A	0.61 U	0.61 U	0.62 U	NS
2,2-Dichloropropane	N/A	N/A	1.2 U	1.2 U	1.2 U	NS
Acetone	11 x 10 ⁶	N/A	70	21 U	27 U	NS
Benzene	1200	N/A	0.61 U	0.61 U	0.62 U	NS
Bromobenzene	N/A	N/A	0.61 U	0.61 U	0.62 U	NS
Bromochloromethane	95000	N/A	0.61 U	0.61 U	0.62 U	NS
Bromodichloromethane	1500	N/A	0.61 U	0.61 U	0.62 U	NS
Bromoform	48000	N/A	12 U	12 U	12 U	NS
Bromomethane	3100	N/A	0.61 U	0.61 U	0.62 U	NS
Carbon disulfide	270000	N/A	2.9	0.61 U	0.51 J	NS
Carbon Tetrachloride	500	N/A	0.61 U	0.61 U	0.62 U	NS
Chlorobenzene	120000	N/A	0.61 U	0.61 U	0.62 U	NS
Chloroethane	3900	N/A	0.61 U	0.61 U	0.62 U	NS
Chloroform	400	N/A	0.61 U	0.61 U	0.62 U	NS
Chloromethane	4000	N/A	0.61 U	0.61 U	0.62 U	NS
cis-1,2-Dichloroethene	33000	N/A	0.34 J	0.61 U	0.62 U	NS
cis-1,3-Dichloropropene	1400	N/A	0.61 U	0.61 U	0.62 U	NS
Cyclohexane	N/A	N/A	0.61 U	0.61 U	0.62 U	NS
Dibromochloromethane	1500	N/A	2.4 U	2.4 U	2.5 U	NS
Dibromomethane	100	N/A	0.61 U	0.61 U	0.62 U	NS
Dichlorodifluoromethane (Freon 12)	77000	N/A	0.61 U	0.61 U	0.62 U	NS
Ethyl Benzene	1500000	N/A	2.2	0.61 U	0.62 U	NS
Hexachlorobutadiene	6200	N/A	0.61 U	0.61 U	0.62 U	NS
Isopropylbenzene	220000	N/A	0.61 U	0.61 U	0.62 U	NS
Methyl Acetate	6800000	N/A	1.2 U	1.2 U	1.2 U	NS

Concentrations reported in ug/kg Concentrations in **Bold** establish a release
TEL: Threshold Effects level SQAG: Sediment Quality Assessment Guideline
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
J = Estimated Concentration U = Concentration below detection limit
NS = No Sample collected Shaded Cell = Concentration exceeds SCTL or SQAG

Table 9 continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Sediment Samples						
ANALYTE	Regulatory Limit/Guideline		SAMPLES			
	SCTL Resident	SQAG (TEL)	BTG008 SD	BTG009 SD	BTG010 SD	BTG011 SD
Methyl Butyl Ketone	16 x 10 ⁶	N/A	1.2 U	1.2 U	1.2 U	NS
Methyl Ethyl Ketone	16000	N/A	12	5.4 U	5.5 U	NS
Methyl Isobutyl Ketone	4300000	N/A	1.2 U	1.2 U	1.2 U	NS
Methyl T-Butyl Ether (MTBE)	4400000	N/A	0.61 U	0.61 U	0.62 U	NS
Methylcyclohexane		N/A	0.61 U	0.61 U	0.62 U	NS
Methylene Chloride	17000	N/A	0.61 U	0.61 U	0.62 U	NS
n-Butylbenzene		N/A	0.61 U	0.61 U	0.62 U	NS
n-Propylbenzene		N/A	0.53 J	0.61 U	0.62 U	NS
o-Chlorotoluene	200000	N/A	0.61 U	0.61 U	0.62 U	NS
o-Xylene 0.28	130000	N/A	0.28 J	0.61 U	0.62 U	NS
p-Chlorotoluene	170000	N/A	0.61 U	0.61 U	0.62 U	NS
p-Isopropyltoluene		N/A	0.68 U	0.61 U	0.62 U	NS
sec-Butylbenzene		N/A	0.61 U	0.61 U	0.62 U	NS
Styrene	36 x 10 ⁶	N/A	0.61 U	0.61 U	0.62 U	NS
tert-Butylbenzene		N/A	0.61 U	0.61 U	0.62 U	NS
Tetrachloroethene (Tetrachloroethylene)	8800	N/A	0.61 U	0.61 U	0.62 U	NS
Toluene	7500000	N/A	180	2.8	0.26 J	NS
trans-1,2-Dichloroethene	53000	N/A	0.61 U	0.61 U	0.62 U	NS
trans-1,3-Dichloropropene	1400	N/A	0.61 U	0.61 U	0.62 U	NS
Trichloroethene (Trichloroethylene)	6400	N/A	0.61 U	0.61 U	0.62 U	NS
Trichlorofluoromethane (Freon 11)	270000	N/A	0.61 U	0.61 U	0.62 U	NS
Vinyl chloride	200	N/A	0.61 U	0.61 U	0.62 U	NS
Concentrations reported in ug/kg Concentrations in Bold establish a release N/A: Not Applicable TEL: Threshold Effects level SQAG: Sediment Quality Assessment Guideline SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings J = Estimated Concentration U = Concentration below detection limit NS = No Sample collected Shaded Cell = Concentration exceeds SCTL or SQAG						

Table 10a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Sediment Samples						
ANALYTE	Regulatory Limit/Guideline		SAMPLES			
	SCTL Resident	SQAG (TEL)	BTG008 SD	BTG009 SD	BTG010 SD	BTG011 SD
(3-and/or 4-)Methylphenol	N/A	N/A	430 U	430 U	420 U	390 U
1,1-Biphenyl	3000000	N/A	43 U	43 U	42 U	39 U
2,3,4,6-Tetrachlorophenol	2100000	N/A	430 U	430 U	420 U	390 U
2,4,5-Trichlorophenol	7700000	N/A	430 U	430 U	420 U	390 U
2,4,6-Trichlorophenol	70000	N/A	430 U	430 U	420 U	390 U
2,4-Dichlorophenol	230000	N/A	430 U	430 U	420 U	390 U
2,4-Dimethylphenol	1300000	N/A	430 U	430 U	420 U	390 U
2,4-Dinitrophenol	110000	N/A	430 U	430 U	420 U	390 U
2,4-Dinitrotoluene	1200	N/A	430 U	430 U	420 U	390 U
2,6-Dinitrotoluene	1200	N/A	430 U	430 U	420 U	390 U
2-Chloronaphthalene	5 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
2-Chlorophenol	130000	N/A	430 U	430 U	420 U	390 U
2-Methyl-4,6-dinitrophenol	8400	N/A	430 U	430 U	420 U	390 U
2-Methylnaphthalene	8400	20.2	43 U	43 U	42 U	39 U
2-Methylphenol	2.9 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
2-Nitroaniline	24000	N/A	430 U	430 U	420 U	390 U
2-Nitrophenol	N/A	N/A	430 U	430 U	420 U	390 U
3,3'-Dichlorobenzidine	2100	N/A	430 U	430 U	420 U	390 U
3-Nitroaniline	17000	N/A	430 U	430 U	420 U	390 U
4-Bromophenyl phenyl ether	N/A	N/A	430 U	430 U	420 U	390 U
4-Chloro-3-methylphenol	2.9 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
4-Chloroaniline	200000	N/A	430 U	430 U	420 U	390 U
4-Chlorophenyl phenyl ether	270000	N/A	430 U	430 U	420 U	390 U
4-Nitroaniline	21000	N/A	430 U	430 U	420 U	390 U
4-Nitrophenol	560000	N/A	430 U	430 U	420 U	390 U
Acenaphthene	2400000	6.71	43 U	43 U	42 U	39 U
Acenaphthylene	1800000	5.87	43 U	43 U	42 U	39 U
Acetophenone	3900000	N/A	430 U	430 U	420 U	390 U
Anthracene	21000000	46.9	43 U	43 U	42 U	39 U
Atrazine	4300	N/A	430 U	430 U	420 U	390 U
Benzaldehyde	3300000	N/A	430 U	430 U	420 U	47 J
Benzo(a)anthracene	#	74.8	43 U	43 U	42 U	68
Benzo(a)pyrene	100 #	88.8	43 U	43 U	42 U	79
Benzo(b)fluoranthene	#	N/A	52	43 U	42 U	140
Benzo(g,h,i)perylene	2500000	N/A	43 U	43 U	42 U	130
Benzo(k)fluoranthene	#	N/A	43 U	43 U	42 U	130 J
Benzyl butyl phthalate	17 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
Bis(2-chloroethoxy)methane	250000	N/A	430 U	430 U	420 U	390 U
bis(2-Chloroethyl) Ether	300	N/A	430 U	430 U	420 U	390 U
Bis(2-chloroisopropyl) ether	6000	N/A	430 U	430 U	420 U	390 U
Bis(2-ethylhexyl) phthalate	72000	182	690	430 U	420 U	960
Caprolactam	N/A	N/A	430 U	430 U	420 U	390 U
Carbazole	49000	N/A	43 U	43 U	42 U	39 U
Chrysene	#	108	55	43 U	42 U	140
Dibenz(a,h)anthracene	#	6.22	43 U	43 U	42 U	39 U
Dibenzofuran	320000	N/A	43 U	43 U	42 U	39 U
Diethyl phthalate	61 x 10 ⁶	N/A	430 U	430 U	420 U	390 U

Concentrations reported in ug/kg Concentrations in **Bold** establish a release
TEL: Threshold Effects level SQAG: Sediment Quality Assessment Guideline
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
J = Estimated Concentration U = Concentration below detection limit
Shaded Cell = Concentration exceeds SCTL or SQAG

Table 10a continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Sediment Samples						
ANALYTE	Regulatory Limit/Guideline		ANALYTE			
	SCTL Resident	SQAG	BTG008 SD	BTG009 SD	BTG010 SD	BTG011 SD
Dimethyl phthalate	1.7 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
Di-n-butylphthalate	2300000	N/A	430 U	430 U	420 U	390 U
Di-n-octylphthalate	2.6 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
Fluoranthene	400	113	72	43 U	42 U	150
Fluorene	9500	21.2	43 U	43 U	42 U	39 U
Hexachlorobenzene (HCB)	38000	N/A	430 U	430 U	420 U	390 U
Hexachlorocyclopentadiene (HCCP)	9500	N/A	430 U	430 U	420 U	390 U
Hexachloroethane	540000	N/A	430 U	430 U	420 U	390 U
Indeno (1,2,3-cd) pyrene	#	N/A	43 U	43 U	42 U	110
Isophorone	18000	N/A	430 U	430 U	420 U	390 U
Naphthalene	80	34.6	43 U	43 U	42 U	39 U
Nitrobenzene	180000	N/A	430 U	430 U	420 U	390 U
n-Nitroso di-n-Propylamine	7200	N/A	430 U	430 U	420 U	390 U
n-Nitrosodiphenylamine/Diphenylamine	2,200,000	N/A	430 U	430 U	420 U	390 U
Pentachlorophenol	500000	N/A	430 U	430 U	420 U	390 U
Phenanthrene	2,400,000	86.7	43 U	43 U	42 U	46
Phenol	1.7 x 10 ⁶	N/A	430 U	430 U	420 U	390 U
Pyrene	2300000	153	61	43 U	42 U	160

Concentrations reported in ug/kg Concentrations in **Bold** establish a release
TEL: Threshold Effects level SQAG: Sediment Quality Assessment Guideline
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
J = Estimated Concentration U = Concentration below detection limit
Shaded Cell = Concentration exceeds SCTL or SQAG

Table 10b
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Collective Benzo(a)pyrene-equivalent toxicity of carcinogenic PAHs detected or inferred* in Sediment Samples									
ANALYTE	General Criteria			Sample Results for carcinogenic PAHs					
	TEF	SCTLS RES	IND	BTG008SD* Concentration	Q	TEQ	BTG011 SD* Concentration	Q	TEQ
Benzo(a)pyrene	1	0.1	0.7	0.043	U	0.022	0.079		0.0790
Benzo(a)anthracene	0.1			0.043	U	0.002	0.068		0.0068
Benzo(b)flouranthene	0.1			0.052		0.005	0.140		0.0140
Benzo(k)flouranthene	0.01			0.043	U	0.000	0.130	J	0.0013
Chrysene	0.001			0.055		0.000	0.140		0.0001
Dibenz(a,h)anthracene	1			0.043	U	0.022	0.039	U	0.0195
Indeno(1,2,3-cd)pyrene	0.1			0.043	U	0.002	0.110		0.0110
TEQ Sum for Sample						0.053			0.132
Concentrations reported in mg/kg					PAH = Polycyclic Aromatic Hydrocarbon				
Concentrations in Bold establish a release					TEQ = Toxicity EQuivalent (relative to benzo(a)pyrene)				
Shaded Cell = Concentration exceeds SCTL, allowing for a 49% margin of error (Level of shading corresponds with applicable setting)									
J = Estimated Concentration					TEF = Toxic Equivalency Factor				
U = Concentration below detection limit					Q = Qualifier				
SCTL Resident (RES) = Soil Cleanup Target Level for direct exposure in residential settings									
SCTL Industrial (IND) = Soil Cleanup Target Level for direct exposure in industrial settings									
*Formed by a common combination of conditions, all seven carcinogenic PAHs are presumed to exist if one of the carcinogenic PAHs is detected. By convention, the presumed concentration of each inferred carcinogenic PAH = ½ the applicable detection limit for that inferred carcinogenic PAH.									

Table 11
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Pesticide Analyses Results for Sediment Samples						
ANALYTE	Regulatory Limit/Guideline		SAMPLES			
	SCTL	SQAG	BTG008 SD	BTG009 SD	BTG010 SD	BTG011 SD
4,4'-DDD (p,p'-DDD)	4200	1.22	2.6 U	5.9	17	2.3 U
4,4'-DDE (p,p'-DDE)	2900	2.07	1.3 U	1.3 U	1.3 U	5.8 U
4,4'-DDT (p,p'-DDT)	2900	1.19	3.2 U	3.3 U	3.1 U	2.9 U
Aldrin	60	N/A	1.3 U	1.3 U	1.3 U	1.2 U
alpha-BHC	100	N/A	0.64 U	0.66 U	0.63 U	1.1
alpha-Chlordane	2800	2.26	1.3 U	1.3 U	1.3 U	1.2 U
beta-BHC	500	N/A	1.3 U	1.3 U	1.3 U	1.2 U
delta-BHC	24000	N/A	1.3 U	1.3 U	1.3 U	2.5
Dieldrin	60	0.72	1.5 J	1.3 U	1.3 U	5.8 U
Endosulfan I (alpha)	450000	N/A	1.3 U	1.3 U	1.3 U	1.2 U
Endosulfan II (beta)	450000	N/A	2.6 U	2.6 U	2.5 U	2.3 U
Endosulfan Sulfate	450000	N/A	3.2 U	3.3 U	3.1 U	2.9 U
Endrin	25000	N/A	2.6 U	2.6 U	2.5 U	2.3 U
Endrin aldehyde	N/A	N/A	3.2 U	3.3 U	3.1 U	2.9 U
Endrin ketone	N/A	N/A	3.2 U	3.3 U	3.1 U	2.9 U
gamma-BHC (Lindane)	700	0.32	0.87 J	0.66 U	0.63 U	0.79
gamma-Chlordane	2800	2.26	1.3 U	6.6 U	1.3 U	2.8
Heptachlor	200	N/A	2.5	0.99 U	0.94 U	0.87 U
Heptachlor epoxide	100	N/A	1.3 U	1.6	1.3 U	1.2 U
Methoxychlor	420000	N/A	6.4 U	6.6 U	6.3 U	5.8U
Toxaphene	900	N/A	130 U	130 U	130 U	120 U

Concentrations reported in ug/kg Concentrations in **Bold** establish a release
Shaded Cell = Concentration exceeds SCTL or SQAG
TEL: Theshold Effects level SQAG: Sediment Quality Assessment Guideline
SCTL Resident = Soil Cleanup Target Level for direct exposure in residential settings
J = Estimated Concentration
U = Concentration below detection limit

Table 12
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Metals Analyses Results for Ground Water Samples										
ANALYTE	REGULATORY LIMIT		SAMPLES							
	GCTL	MCL	BTGTB 3	BTGTB 4	BTG001 GW*	BTG002 GW	BTG003 GW	BTG004 GW	BTG005 GW	BTG005D GW
Mercury	2	2	0.20 U	0.073 U	0.051 U	0.059 U	0.20 U	0.20 U	0.20 U	0.20 U
Aluminum	200	N/A	200 U	200 U	1700	1000	180 J	480	1000	1000
Antimony	6	6	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	10	10	10 U	10 U	10 U	10 U	590	15	10 U	10 U
Barium	2000	2000	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium	4	4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cadmium	5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Calcium	N/A	N/A	5000 U	5000 U	35000	77000	120000	73000	50000	50000
Chromium	100	100	10 U	10 U	3.7 J	5.8 J	10 U	10 U	3.9 J	3.9 J
Cobalt	140	N/A	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper	1000	1300	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Iron	300	N/A	100 U	100 U	1500	260	370	290	310	310
Lead	15	15	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Magnesium	N/A	N/A	5000 U	5000 U	2700 J	9400	4400 J	4200 J	2200 J	2200 J
Manganese	50	N/A	15 U	15 U	10 J	15 U	15 U	15 U	15 U	15 U
Nickel	100	N/A	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U
Potassium	N/A	N/A	5000 U	5000 U	6800	19000	3600 J	5600	14000	14000
Selenium	50	50	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U
Silver	100	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	N/A	N/A	5000 U	5000 U	15000	29000	18000	26000	34000	34000
Thallium	2	2	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Vanadium	49	N/A	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	5000	N/A	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U

All concentrations given in ug/l U = Concentration below detection limit J = Estimated Concentration NA = Not applicable
GCTL=Groundwater Cleanup Target Level MCL = Maximum Contaminant Level
Red GCTL values represent Primary Standards
Green GCTL values represent Secondary Standards
Maroon GCTL values represent Minimum Criteria
Yellow-Shaded Cell = Value exceeds GCTL applicable to a Secondary Standard or Minimum Criteria
Red-Shaded Cell = Value Exceeds MCL and/or, GCTL applicable to Primary Standard

Table 13a
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Ground Water Samples									
ANALYTE	REGULATORY LIMIT		SAMPLES						
	GCTL	MCL	BTGTB 2	BTG001 GW*	BTG002 GW	BTG003 GW	BTG004 GW	BTG005 GW	BTG005D GW
(m- and/or p-)Xylene	20	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1,2-Tetrachloroethane	1.3	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	200	200	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	0.2	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon113)	210000	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	5	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	70	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene (1,1-Dichloroethylene)	7	7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloropropene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	70	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichloropropane	0.02	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	70	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trimethylbenzene	10	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10 U	0.50 U
1,2-Dibromo-3-Chloropropane(DBCP)	0.2	0.2	10 U	10 U	10 U	10 U	10 U	10 U	0.50 U
1,2-Dibromoethane	0.02	0.05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	600	600	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	3	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	5	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3,5-Trimethylbenzene	10	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	210	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichloropropane	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	4.6	0.50 U
1,4-Dichlorobenzene	75	75	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
2,2-Dichloropropane	N/A	N/A	10 U	10 U	10 U	10 U	10 U	10 U	0.50 U
Acetone	6300	N/A	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	0.50 U
Benzene	1	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromobenzene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U
Bromochloromethane	91	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	0.50 U
Bromodichloromethane	0.6	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	4.4	N/A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	9.8	N/A	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	2.0 U
Carbon disulfide	700	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	3	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.40 J	0.50 U
Chlorobenzene	100	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	12	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	70	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	0.35 J
Chloromethane	2.7	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	70	70	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	100	0.4	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	2.0 U
Cyclohexane	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromochloromethane	0.4	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dibromomethane	0.02	0.05	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane (Freon12)	1400	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.1 J	0.50 U
Ethyl Benzene	30	700	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U

All concentrations given in ug/l U = Concentration below detection limit J = Estimated Concentration NA = Not applicable
GCTL=Groundwater Cleanup Target Level MCL = Maximum Contaminant Level
Red GCTL values represent Primary Standards
Green GCTL values represent Secondary Standards
Maroon GCTL values represent Minimum Criteria
Yellow-Shaded Cell = Value exceeds GCTL applicable to a Secondary Standard or Minimum Criteria
Red-Shaded Cell = Value Exceeds MCL and/or, GCTL applicable to Primary Standard

Table 13a continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

VOC Analyses Results for Ground Water Samples									
ANALYTE	REGULATORY LIMIT		SAMPLES						
	GCTL	MCL	BTGTB 2	BTG001 GW	BTG002 GW	BTG003 GW	BTG004 GW	BTG005 GW	BTG005D GW
Hexachlorobutadiene	0.4	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.40 J	0.50 U
Isopropylbenzene	0.8	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U
Methyl Acetate		N/A	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	0.50 U	4.0 U
Methyl Butyl Ketone	280	N/A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Ethyl Ketone	4200	N/A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U
Methyl Isobutyl Ketone	560	N/A	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U
Methyl T-Butyl Ether(MTBE)	20	N/A	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	5	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
n-Butylbenzene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
n-Propylbenzene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-Chlorotoluene	140	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	20	10	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
p-Chlorotoluene	140	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
p-Isopropyltoluene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
sec-Butylbenzene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Styrene	100	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
tert-Butylbenzene	N/A	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene(Tetrachloroethylene)	3	5	0.50 U	0.50 U	0.50 U	2.5	0.50 U	0.43 J	0.47 J
Toluene	40	1000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	100	100	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	0.4	N/A	5.0 U	0.50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene(Trichloroethylene)	3	5	0.50 U	5.0 U	0.50 U	0.14 J	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane (Freon111)	2100	N/A	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl chloride	1	2	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

All concentrations given in ug/l U = Concentration below detection limit J = Estimated Concentration NA = Not applicable
GCTL=Groundwater Cleanup Target Level MCL = Maximum Contaminant Level
Red GCTL values represent Primary Standards
Green GCTL values represent Secondary Standards
Maroon GCTL values represent Minimum Criteria
Yellow-Shaded Cell = Value exceeds GCTL applicable to a Secondary Standard or Minimum Criteria
Red-Shaded Cell = Value Exceeds MCL and/or, GCTL applicable to Primary Standard

Table 14
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Ground Water Samples								
ANALYTE	REGULATORY LIMIT		SAMPLES					
	GCTL	MCL	BTG001 GW*	BTG002 GW	BTG003 GW	BTG004 GW	BTG005 GW	BTG005D GW
(3-and/or 4-)Methylphenol	35	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
1,1-Biphenyl	0.5	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
2,3,4,6-Tetrachlorophenol	210	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,4,5-Trichlorophenol	1	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,4,6-Trichlorophenol	3.2	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,4-Dichlorophenol	0.3	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,4-Dimethylphenol	140	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,4-Dinitrophenol	14	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,4-Dinitrotoluene	0.05	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2,6-Dinitrotoluene	0.05	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2-Chloronaphthalene	560	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2-Chlorophenol	35	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
2-Methyl-4,6-dinitrophenol	N/A	N/A	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
2-Methylnaphthalene	28	N/A	2.1U	9.9 U	10 U	2.0 U	1.9 U	2.0 U
2-Methylphenol	35	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2-Nitroaniline	21	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
2-Nitrophenol	56	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
3,3'-Dichlorobenzidine	0.08	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
3-Nitroaniline	1.7	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
4-Bromophenyl phenyl ether	N/A	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
4-Chloro-3-methylphenol	63	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
4-Chloroaniline	28	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
4-Chlorophenyl phenyl ether	N/A	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
4-Nitroaniline	21	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
4-Nitrophenol	56	N/A	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
Acenaphthene	20	N/A	2.1 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U
Acenaphthylene	210	N/A	2.1 U	9.9 U	10 U	2.0 U	1.9 U	2.0 U
Acetophenone	700	N/A	10 U	2.0 U	2.0 U	9.9 U	9.7 U	9.9 U
Anthracene	2100	N/A	2.1 U	9.9 U	2.0 U	2.0 U	1.9 U	2.0 U
Atrazine	3	3	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
Benzaldehyde	700	N/A	10 U	2.0 U	2.0 U	9.9 U	9.7 U	9.9 U
Benzo(a)anthracene	0.05	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Benzo(a)pyrene	0.2	0.2	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Benzo(b)fluoranthene	0.05	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Benzo(g,h,i)perylene	210	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Benzo(k)fluoranthene	0.5	N/A	2.1 U	9.9 U	10 U	2.0 U	1.9 U	2.0 U
Benzyl butyl phthalate	140	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
Bis(2-chloroethoxy)methane	N/A	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
bis(2-Chloroethyl) Ether	0.03	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
Bis(2-chloroisopropyl) ether	0.5	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
Bis(2-ethylhexyl) phthalate	6	6	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
Caprolactam	N/A	N/A	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
Carbazole	1.6	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Chrysene	4.8	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Dibenz(a,h)anthracene	0.005	N/A	2.1 U	2.0 U	10 U	2.0 U	1.9 U	2.0 U
Dibenzofuran		N/A	2.1 U	9.9 U	10 U	2.0 U	1.9 U	2.0 U

All concentrations given in ug/l U = Concentration below detection limit J = Estimated Concentration NA = Not applicable
GCTL=Groundwater Cleanup Target Level MCL = Maximum Contaminant Level
Red GCTL values represent Primary Standards
Green GCTL values represent Secondary Standards
Maroon GCTL values represent Minimum Criteria
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Red-Shaded Cell = Value Exceeds MCL and/or, GCTL applicable to Primary Standard

Table 14 continued
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Semi-VOC Analyses Results for Ground Water Samples								
ANALYTE	REGULATORY LIMIT		SAMPLES					
	GCTL	MCL	BTG001 GW*	BTG002 GW	BTG003 GW	BTG004 GW	BTG005 GW	BTG005D GW
Diethyl phthalate	5600	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
Dimethyl phthalate	70000	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
Di-n-butylphthalate	700	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
Di-n-octylphthalate	140	N/A	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
Fluoranthene	280	N/A	2.1 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U
Fluorene	280	N/A	2.1 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U
Hexachlorobenzene(HCB)	1	1	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
Hexachlorocyclopentadiene(HCCP)	50	50	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
Hexachloroethane	2.5	N/A	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
Indeno (1,2,3-cd) pyrene	0.05	N/A	2.1 U	9.9 U	2.0 U	2.0 U	1.9 U	2.0 U
Isophorone	37	N/A	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
Naphthalene	14	N/A	2.1 U	9.9 U	2.0 U	2.0 U	1.9 U	2.0 U
Nitrobenzene	3.5	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
n-Nitroso di-n-Propylamine	0.005	N/A	10 U	9.9 U	10 U	9.9 U	9.7 U	9.9 U
n-Nitrosodiphenylamine/Diphenylamine	7.1	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
Pentachlorophenol	1	1	10 U	2.0 U	10 U	9.9 U	9.7 U	9.9 U
Phenanthrene	210	N/A	2.1 U	9.9 U	2.0 U	2.0 U	1.9 U	2.0 U
Phenol	10	N/A	10 U	9.9 U	2.0 U	9.9 U	9.7 U	9.9 U
Pyrene	210	N/A	2.1 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U

All concentrations given in ug/l U = Concentration below detection limit J = Estimated Concentration NA = Not applicable
GCTL=Groundwater Cleanup Target Level MCL = Maximum Contaminant Level
Red GCTL values represent Primary Standards
Green GCTL values represent Secondary Standards
Maroon GCTL values represent Minimum Criteria
Yellow-Shaded Cell = Value exceeds GCTL applicable to a Secondary Standard or Minimum Criteria
Red-Shaded Cell = Value Exceeds MCL and/or, GCTL applicable to Primary Standard

Table 15
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Pesticide Analyses Results for Ground Water Samples								
ANALYTE	REGULATORY LIMIT		SAMPLES					
	GCTL	MCL	BTG001 GW*	BTG002 GW	BTG003 GW	BTG004G W	BTG005G W	BTG005 DGW
4,4'-DDD (p,p'-DDD)	0.1	N/A	0.040 U	0.039 U	0.038 U	0.039 U	0.039 U	0.040 U
4,4'-DDE (p,p'-DDE)	0.1	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
4,4'-DDT (p,p'-DDT)	0.1	N/A	0.050 U	0.049 U	0.048 U	0.049 U	0.049 U	0.050 U
Aldrin	0.002	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
alpha-BHC	0.006	N/A	0.0099 U	0.0099 U	0.0096 U	0.0098 U	0.0098 U	0.010 U
alpha-Chlordane	2	2	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
beta-BHC	0.02	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
delta-BHC	2.1	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
Dieldrin	0.002	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.10 U
Endosulfan I (alpha)	42	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
Endosulfan II (beta)	42	N/A	0.040 U	0.039 U	0.038 U	0.039 U	0.039 U	0.040 U
Endosulfan Sulfate	42	N/A	0.050 U	0.049 U	0.048 U	.049 U	0.049 U	0.050 U
Endrin	2	2	0.040 U	0.039 U	0.038 U	0.039 U	0.039 U	0.040 U
Endrin aldehyde	N/A	N/A	0.050 U	0.049 U	0.048 U	0.049 U	0.049 U	0.050 U
Endrin ketone	N/A	N/A	0.050 U	0.049 U	0.048 U	0.049 U	0.049 U	0.050 U
gamma-BHC (Lindane)	0.2	0.2	0.0099 U	0.0099 U	0.0096 U	0.0098 U	0.0098 U	0.010 U
gamma-Chlordane	2	N/A	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
Heptachlor	0.4	0.4	0.015 U	0.015 U	0.014 U	0.015 U	0.015 U	0.015 U
Heptachlor epoxide	0.2	0.2	0.020 U	0.020 U	0.019 U	0.020 U	0.020 U	0.020 U
Methoxychlor	40	40	0.099 U	0.099 U	0.096 U	0.098 U	0.098 U	0.10 U
Toxaphene	3	3	2.0 U	2.0 U	1.9 U	2.0 U	2.0 U	2.0 U

All concentrations given in ug/l U = Concentration below detection limit J = Estimated Concentration NA = Not applicable
GCTL=Groundwater Cleanup Target Level MCL = Maximum Contaminant Level
Red GCTL values represent Primary Standards
Green GCTL values represent Secondary Standards
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Table 16
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

Ground Water Field Parameters [28]					
Parameter	Monitoring Well				
	BTG001GW ¹	BTG002 GW ¹	BTG003GW ²	BTG004GW ¹	BTG005GW ¹
pH	5.56	6.88	6.74	6.97	6.42
Conductivity (µmhos/cm)	313	590	691	523	545
Turbidity (NTU)	9.5	7.9	1.69	3.92	9.6
Temperature (°C)	24.9	25.9	23.6	24.7	26.7
Time	08:45	15:10	09:30	13:10	12:40

¹ = Parameters determined on 2/2/10

² = Parameters determined on 2/3/10

Table 17
Boca Teeca Golf and Tennis Club
AKA: Ocean Breeze Golf Course
Boca Raton, Palm Beach County, Florida

GPS Sample Coordinates [29]				
Sample Location	Site Location	Latitude	Longitude	Derived by:
BTG-001-SF/SB/GW	575 feet west-northwest of Maintenance area	26.39932	-080.08867	GPSmap36CSx
BTG -002-SF/SB/GW	Midway between maintenance area and Western margin of Golf course	26.39859	-080.08767	GPSmap36CSx
BTG -003-SF/SB/GW	Northern portion of maintenance area	26.39844	-080.08688	GPSmap36CSx
BTG -004-SF/SB/GW	Southeastern margin of maintenance area	26.39804	-080.08678	GPSmap36CSx
BTG -005-SF/SB/GW	Southwestern margin of maintenance area	26.39804	-080.08727	GPSmap36CSx
BTG -006- SF/SB/	Western margin of maintenance area	26.39840	-080.08734	GPSmap36CSx
BTG -007- SF/SB/	Northwestern margin of maintenance area	26.39856	-080.08856	GPSmap36CSx
BTG -008-SD	Recycle Area Storm Drain	26.39841	-080.08691	GPSmap36CSx
BTG -009-SD	Irrigation Pond at pipe outfall	26.39885	-080.08658	GPSmap36CSx
BTG -010-SD	Irrigation Pond 2 feet east of pipe outfall	26.39878	-080.08649	GPSmap36CSx
BTG -011-SD	Maintenance Area Storm Drain	26.39809	-080.08731	GPSmap36CSx
<p>Note: The internal coordinate system was determined using the portable Garman® GPSmap76CSx GPS unit using geographic decimal coordinates (latitude/longitude) on the World Geodetic System of 1984 (WGS84) datum.</p>				