DRAFT

LOS ANGELES REGIONAL DMMP:
UPLAND TREATMENT TECHNOLOGIES INVESTIGATION REPORT

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ADDAMS	Automated Dredging and Disposal Alternatives Management System
AOCs	Agreed Orders of Consent
ARCS	Assessment and Remediation of Contaminated Sediments
BEST	Basic Extractive Sludge Treatment
CAD	Confined Aquatic Disposal
CCC	California Coastal Commission
CDF	confined disposal facility
cm	centimeters
Corps	U.S. Army Corps of Engineers
the County	Los Angeles County
CSTF	Contaminated Sediments Task Force
CTF	contained treatment facility
DAVES	Desorption and Vaporization Extraction System
DDT	Dichlorodiphenyltrichloroethane
DMMP	Dredged Material Management Plan
EDTA	Ethylenediaminetetraacetic acid
EPA	U.S. Environmental Protection Agency
ERDC	The Corps' Engineer Research and Development
ER-L	effects range-low
ER-M	effects range-median
ft	feet
FS	Feasibility Study
in	inches
kg/cm^2	kilograms per square centimeter
kg/m^3	kilograms per cubic meter
kilometers	km
LACDPW	Los Angeles County Department of Public Works
LARE	Los Angeles River Estuary
m	meters
m^3	cubic meters
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
mi	miles

mi^2	square miles
MLLW	mean lower low water
NPDES	National Pollutant Discharge Elimination System
NOAA	National Oceanic and Atmospheric Administration
PAH	Polycyclic Aromatic Hydrocarbon
PCBs	Polychlorinated Biphenyls
PCDDF	Primary Consolidation and Desiccation of Dredged Fill
POLB	Port of Long Beach
POLA	Port of Los Angeles
ppm	parts per million
PSDDA SL	Puget Sound Dredged Disposal Analysis screen levels
RCRA	Resource Conservation & Recovery Act
ReTec	Remediation Technologies, Inc.
SANDAG	San Diego Association of Governments
TOC	Total Organic Carbon
SCCWRP	Southern California Coastal Water Research Project
SITE	Superfund Innovative Technology Evaluation
STAR	Sediment, Treatment, and Reuse
TCLP	toxicity characteristic leaching procedure
THUMS	Texaco, Humble, Union, Mobile and Shell
SVOA	semi-volatile organic concentrations
USACE	U.S. Army Corps of Engineers, Los Angeles District

1.0 INTRODUCTION AND OBJECTIVES

The U.S. Army Corps of Engineers, Los Angeles District (USACE) is responsible for maintaining safe navigation for Southern California harbors, including the entrance to Marina del Rey Harbor and the federal channel leading to the Los Angeles River Estuary (LARE) through regular maintenance dredging. The USACE also manages routine maintenance dredging efforts for the federal navigational channels leading to the Port of Los Angeles (POLA), Port of Long Beach (POLB), Channel Islands Harbor, and Port Hueneme.

Portions, or all, of the material typically dredged from some of these locations contain chemical concentrations above federal numerical and aquatic toxicity screening values, rendering them unsuitable for unconfined, open ocean disposal or beach nourishment. Subsequently, dredging at these sites is hampered by a lack of readily available disposal options for the contaminated dredged material. Lack of suitable contaminated sediment disposal options often results in higher project costs and significant delays for both the USACE and the local sponsors (ports, counties, and cities within the Los Angeles Region).

There are currently two regional management documents that describe the recommended dredge material handling and disposal practices for contaminated sediments generated within the Los Angeles Region: They are (1) the recently completed *Los Angeles Contaminated Sediments Task Force (CSTF) Long-Term Management Strategy*, and (2) *Los Angeles Regional Dredged Material Management Plan (DMMP) Feasibility Study (FS)*, which is currently in preparation. The USACE, Los Angeles District, is an active participant and one of the lead agencies for the Los Angeles Region CSTF study and the lead agency for the preparation of the Los Angeles Region DMMP. Both studies focus on management issues related to contaminated sediments from dredging, and both studies include a recommendation for the development of one or more regional treatment facilities where contaminated sediments can be treated and processed into some form of beneficial reuse products.

Termed a STAR (Storage, Treatment, and Reuse) site by the CSTF members, this approach has been implemented elsewhere in the U.S. (New Jersey) and internationally (Hamburg, Germany) as a means of economically treating contaminated sediments. The concept is to create a centrally located facility where dredge materials can be transported to and subjected to one or

more treatment techniques in an effort to produce re-useable product(s) instead of simply relying on upland landfill or offshore ocean disposal alternatives.

Historically, sediment treatment is rarely used for maintenance or capital improvement dredging projects, except in the case of very large remediation efforts, because of the high set-up costs associated with the various technologies and difficulties locating suitable beneficial reuse opportunities. The concept of a STAR facility is to minimize project specific mobilization costs by building a permanent facility to handle multiple projects, thus spreading out the development costs over the life of the facility and making sediment treatment a more cost-effective alternative.

The overall goal of the current study is to conduct an opportunities and constraints analysis of available upland treatment technologies for potential use with contaminated sediments in the region, and prepare preliminary (conceptual) design drawings for siting and constructing a "STAR" treatment facility to manage contaminated, fine-grained, sediments in a cost-competitive and environmentally protective manner within the Los Angeles Region. Specific study objectives include the following:

- Identify potential treatment and disposal alternatives for use either singly or in a series within a regional treatment facility (summarized from U.S. Environmental Protection Agency [EPA] and U.S. Army Corps of Engineers [Corps] sediment treatment documents);
- Evaluate each alternative to determine its potential for effectiveness within Southern California and meet federal and state regulations, and select feasible alternatives for further evaluation;
- Develop preliminary (conceptual) design specifications for constructing a treatment facility, including options for siting the facility such as land-based or barge-based systems, facility space requirements, process rates, and costs for each of the final alternatives;
- Design and implement bench and field scale testing studies to evaluate the potential for separating contaminated sediments using a hydro-cyclone or similar mechanical separation device; and
- Using the results achieved during the laboratory and field bench scale studies, develop conceptual design drawings for potential full-scale treatment facilities.

Because the information developed for this study can also benefit the Los Angeles Regional DMMP, portions or all of some tasks have been funded by the DMMP (e.g., Hydrocyclone Field Pilot Study) and appear under this program as well as certain DMMP deliverables (e.g., Technical Memorandum for developing regional treatment facility). In addition, portions of this report may be used by members of the Los Angeles Contaminated Sediments Task Force to support their ongoing efforts to select study locations for implementing a regional treatment facility.

The remainder of this document addresses each of these objectives. Section 2 presents a brief description of the study area for which the USACE is responsible, summarizing the nature and extent of the dredge material typically encountered and for which this document would likely apply. Section 3 provides background information on regional sediment characterization. Sections 4 and 5 provide a review of available treatment technologies extracted, almost *verbatim*, from EPA's Assessment and Remediation of Contaminated Sediments (ARCS) Remediation Guidance Document. This information is provided because it offers an excellent summary of the available treatment technologies that could be considered for the development of regional treatment facility, and provides a convenient introduction to the alternatives evaluation subsequently conducted in Section 6. Where appropriate, site-specific information pertaining to an alternatives past use within the study area has been added. Section 7 examines STAR facility siting requirements and operational considerations for developing a regional treatment facility in the Los Angeles Basin. Lastly, Section 8 provides conclusions and recommendations for future study.

2.0 STUDY AREA

The study area for which this dredge material treatment technology evaluation is focused includes the coastal waters between Ventura and Orange Counties. This area extends, generally, from Port Hueneme to the north, down past Santa Monica Bay and San Pedro, all the way to Newport Beach. Specific federal dredge material management areas within the study area include Port Hueneme, Channel Island Harbor, Marina del Rey and the mouth of Ballona Creek, King Harbor, the POLA and POLB, the mouth of the LARE, Alamitos Bay (Figure 2-1), and Newport Bay. Each of these areas has a unique geographic setting, as described below and some frequently require the management of contaminated sediments associated with routine channel maintenance. Problem areas include Port Hueneme, Marina del Rey, LARE, and Newport Bay, and are the focus for this study.

2.1 Port Hueneme

The Port of Hueneme, located in Ventura County, is the only deep water harbor between Los Angeles and the San Francisco Bay area and is the U.S. Port of Entry for California's central coast region (Figure 2-2). It serves international businesses and ocean carriers from the Pacific Rim and Europe. The Port of Hueneme ranks among the top seaports in California for general cargo throughput. The niche markets that Hueneme serves include: the import and export of automobiles, fresh fruit and produce, and forest products. The Port of Hueneme is also the top seaport in the United States for citrus export and ranks among the top 10 ports in the country for automobile and banana imports. Its unique positioning near the Santa Barbara Channel has also made the Port of Hueneme the primary support facility for the offshore oil industry in California's central coast area. The USACE maintains a federal channel into Port Hueneme harbor, which is jointly shared by the U.S. Naval Base Ventura County.

Either as a result of past U.S. Naval or port operations in the harbor, or some yet unidentified source, the sediments located in Port Hueneme are contaminated with Dichlorodiphenyltrichloroethane (DDT), Polychlorinated Biphenyls (PCBs) and some Polycyclic Aromatic Hydrocarbons (PAHs). Bulk sediment concentrations have been detected at levels between low- and mid-range screening values and most have been determined not suitable for aquatic disposal. Physical characteristics of the material are dominated by high sand content and low organic carbon content. Additional details are provided in Section 3.

Figure 2-1
Upland Treatment Technologies Investigation Study Area

Figure 2-2
Port Hueneme

2.2 Santa Monica Bay

Santa Monica Bay is an open coastal embayment situated on the western coastline of Los Angeles County (the County). The bay is bounded on the west by the Santa Monica Basin in the Pacific Ocean, north by Point Dume, south by the Palos Verdes Peninsula and Redondo Submarine Canyon, and shoreward by the Los Angeles Coastal Plain to the east and Santa Monica Mountains to the north. Marina del Rey and King Harbor are major small craft harbors located on the mid, and southern coast of Santa Monica Bay. Ballona Creek enters Santa Monica Bay adjacent to the entrance channel of Marina del Rey. These three locations represent ongoing sources of sediment to this portion of the study area. The Santa Monica Bay and harbors system supports extensive commercial and recreational use including commercial and recreational boating and fishing, surfing, swimming, and beach recreational activities.

2.2.1 Marina del Rey

Formally dedicated in April 1965, Marina del Rey was constructed in the area formerly known as the Playa del Rey Estuary (Figure 2-3). In the past three decades, the harbor has become one of the largest man-made recreational boat harbors in the world with over 6,000 slips available for private boater's commercial fishing vessels, and Coast Guard vessels. To protect the harbor against wave damage during winter storms, a breakwater was constructed perpendicular to the mouth of the harbor in January of 1965. The Marina del Rey harbor is operated and maintained by the Los Angeles County Department of Beaches and Harbors. Navigation within the approach and entrance channels is maintained by USACE.

2.2.2 Ballona Creek

Originally a natural, meandering waterway draining runoff from the hills north of Hollywood and the West Los Angeles Basin, Ballona Creek was channelized and lined with concrete in 1935 by the USACE as a flood control measure and now discharges parallel to the entrance channel jetties of Marina del Rey (Figure 2-3). Much of Ballona Creek today is simply a large flood control channel, draining storm water runoff from a large, heavily urbanized area west and northwest of downtown Los Angeles.

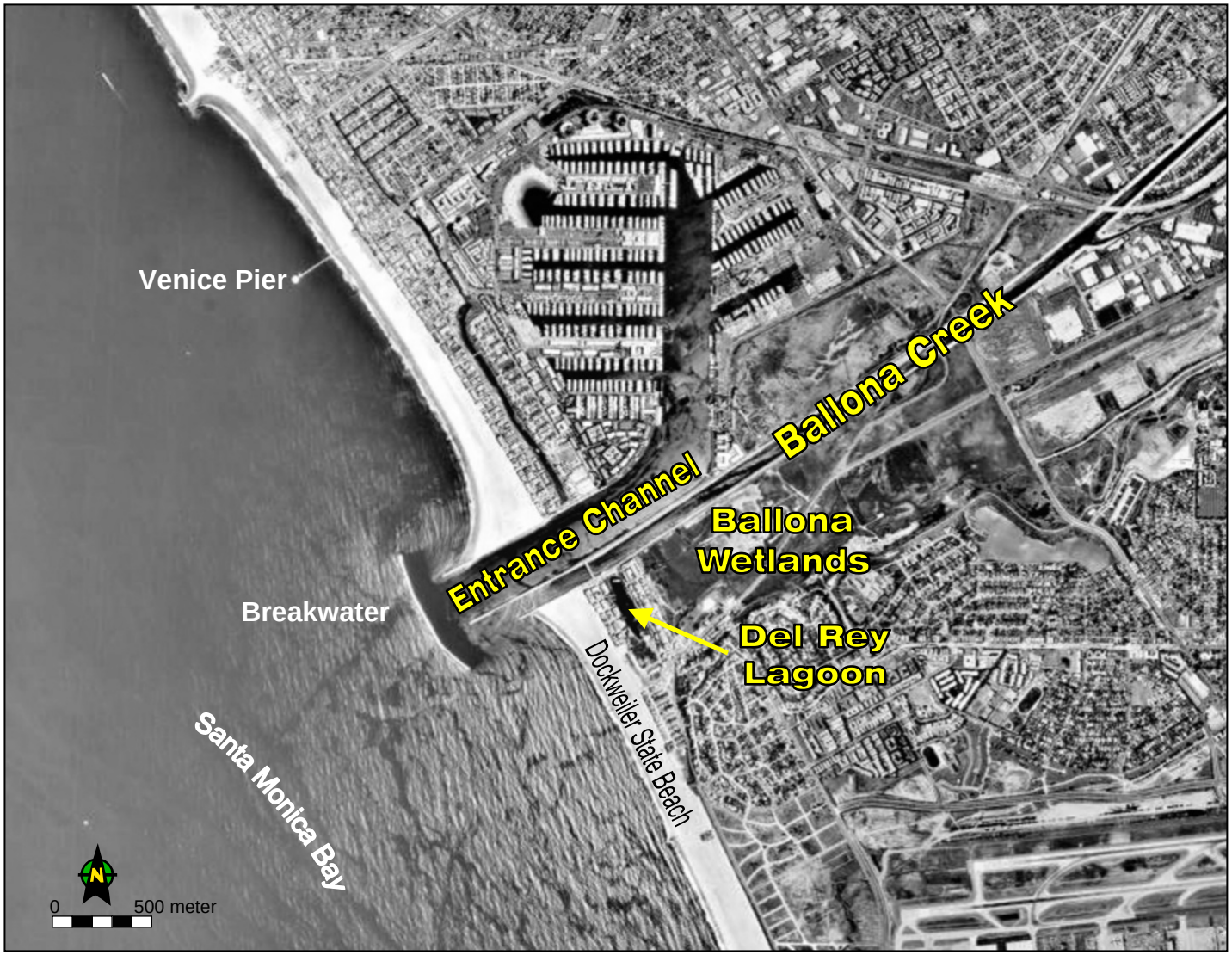


Figure 2-3
Marina del Rey and Ballona Creek

During winter storm events, significant quantities of sediment are transported down Ballona Creek, where they are trapped behind the breakwater constructed to protect the Marina del Rey harbor instead of flowing into Santa Monica Bay.

Operation and maintenance of the flood control channel are partitioned between the USACE and Los Angeles County Department of Public Works (LACDPW). USACE has jurisdiction between Washington Boulevard to La Salle Avenue and Vista del Mar to the Pacific Ocean and LACDPW has jurisdiction over the remainder of the channel. In the portion under its jurisdiction, USACE is responsible for maintenance activities required to maintain the function and structural performance of the flood control channel. Other maintenance activities involving aesthetics, water quality, and vector control are performed by LACDPW and Culver City. USACE also has the jurisdiction to review and approve proposed improvements or alterations to the Ballona Creek flood control channel to ensure there will not be any adverse effects of flood control channel functions. LACDPW may review and approve proposed improvements or alterations to the Ballona Creek flood control channel within the LACDPW jurisdiction reaches.

2.2.3 King Harbor

Redondo Beach − King Harbor is a small craft harbor occupying approximately 60.7 hectares of land and water at the southern end of Santa Monica Bay. King Harbor is about 27.4 kilometers (km) southwest of the business center of the City of Los Angeles and about 11.3 km south of the Los Angeles Airport (Figure 2-4). It has been an active harbor since the early 1900s when it was a commercial port. After the POLA became fully operational, Redondo Beach − King Harbor became focused on pleasure craft and fishing boats. The harbor extends approximately 1,219 meters (m) along the coast and is roughly 610 m wide at the widest point.

The City of Redondo Beach is responsible for maintenance of the interior harbor that includes the three boat basins and the wave protection baffles at the entrances to Basins 1 and 2, built by the federal government. As part of its Operations and Maintenance Program, USACE is responsible for maintenance of the breakwaters.

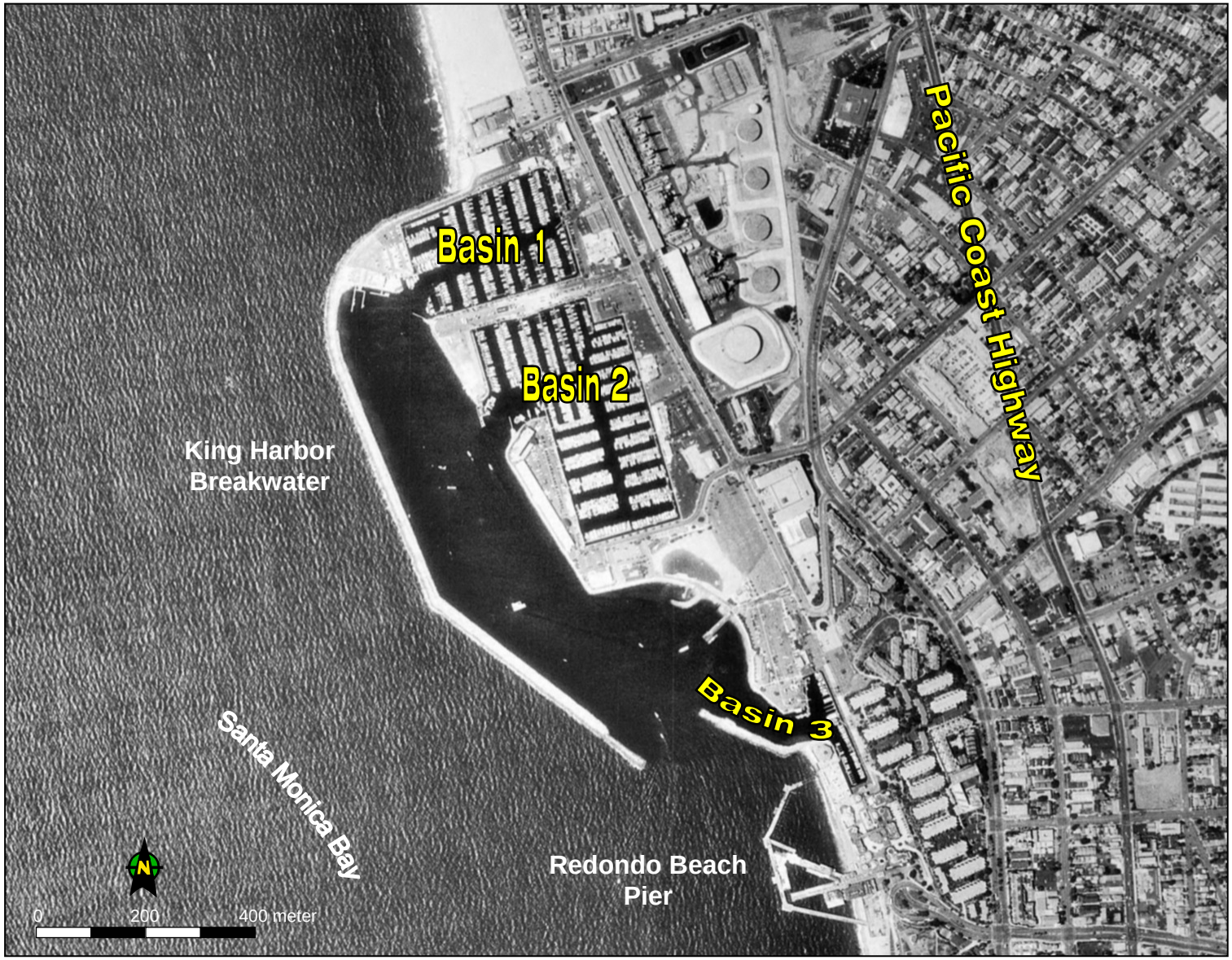


Figure 2-4
Redondo Beach - King Harbor

2.3 San Pedro Bay

San Pedro Bay is an open coastal embayment situated on the southern coast of the County. The bay is bounded by Point Fermin on the west, San Pedro Basin on the southwest, Newport Submarine Canyon on the south, and the coastal plain from San Pedro to Newport Beach along the coast.

Originally a large tide flat and salt marsh, the area that was once called Bahia de los Fumos or the "Bay of Smokes" in 1542, later became known as San Pedro Bay. Around the turn of the century (1907) the POLA was created and a few years later in 1911, the POLB was created at the mouth of the Los Angeles River. An aerial view for the two Ports is shown in Figure 2-5. Port development grew rapidly and by 1912 the first section of the breakwater was constructed and the main shipping channel was dredged to a depth of 9 m to accommodate the largest vessels of that era. Sediment input into San Pedro Bay occurs via two main upland sources: the Dominguez Channel and the Los Angeles River. Although not as significant, some sediment transport also occurs into San Pedro Bay via coastal currents through the openings in the breakwater that shelters the bay.

The Dominguez Channel, previously known as the Dominguez Slough, drains an approximately 259 square kilometers (km^2) watershed located in southern Los Angeles County. Like all of the other waterways in the Los Angeles Basin, most of the Dominguez Slough was channelized in the mid-1900s in an effort to provide flood protection to the County area.

2.3.1 Los Angeles River Estuary

The LARE is located at the mouth of the Los Angeles River in Long Beach (Figure 2-6). Queensway Marina, Rainbow Harbor/Marina, and Shoreline Marina are located in the LARE and operated by the City of Long Beach. These facilities serve primarily recreational boating and cruise ships to Catalina Island.

Figure 2-5
San Pedro Bay,
Port of Los Angeles, Port of Long Beach, and Alamitos Bay

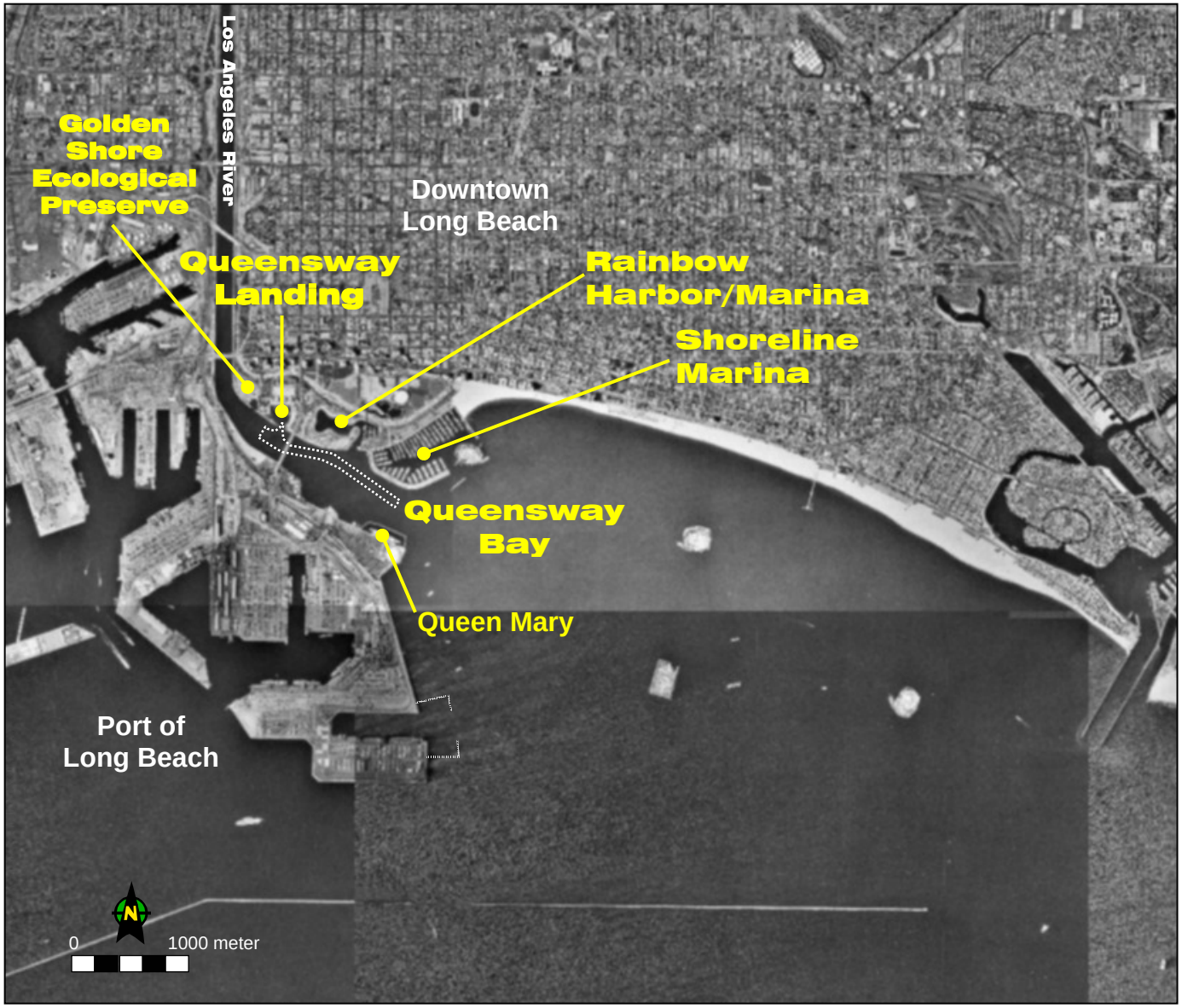


Figure 2-6
Los Angeles River Estuary

The Los Angeles River Watershed covers a land area of over 2,135 km^2 (834 square miles [mi^2]) from the eastern portions of Santa Monica Mountains, and Simi Hills, and Santa Susana Mountains to the San Gabriel Mountains in the west. The watershed encompasses and is shaped by the path of the Los Angeles River, which flows from its headwaters in the mountains eastward to the northern corner of Griffith Park where the channel turns southward through the Glendale Narrows before it flows across the coastal plain and into San Pedro Bay near Long Beach. The Los Angeles River Watershed has diverse patterns of land use. The upper portion of the watershed, 920 km^2 (approximately 360 mi^2), is covered by forest or open space, while the remaining watershed, 1,215 km^2 (approximate 474 mi^2), is highly developed with commercial, industrial, or residential uses.

There are eight major tributaries to the Los Angeles River as it flows from its headwaters to the Pacific Ocean. The major tributaries of the Los Angeles River include Burbank Western Channel, Pacoima Wash, Tujunga Wash, and Verdugo Wash in the San Fernando Valley; and the Arroyo Seco, Compton Creek, and Rio Hondo south of the Glendale Narrows. The Los Angeles River Watershed has 22 water bodies within its boundaries including Devil Gates Dam, Hansen Basin, Lopez Dam, Pacoima Dam, and Sepulveda Basin. In addition, there are a number of spreading grounds in the watershed including sites at Dominguez Gap, the Headworks, Hansen Dam, Lopez Dam, and Pacoima Dam. The Rio Hondo, a tributary to the Los Angeles River is hydraulically connected to the San Gabriel River through the Whittier Narrows Reservoir during large storm events.

The Los Angeles River, which once flowed freely over the coastal plain, was channelized between 1914 and 1970 to control the runoff and reduce the impacts of major flood events in the Los Angeles Region. Today, the Los Angeles River is lined on 77 km (47.9 miles [mi]) of its 82 km (51 mi) length. There are three stretches where the channel bottom is not lined with concrete reinforcement. They are:

- Within the Sepulveda Flood Control Basin
- Through the Glendale Narrows
- South of Willow Street in Long Beach

The Los Angeles River, along most of its course, had intermittent flow during much of the year prior to channelization. In addition, many of its tributaries did not reach the river except during storm events. The current flow in the river is effluent dominated with approximately 80 percent of its flow originating at dischargers and the remaining flow coming from storm drain runoff and groundwater reaching the surface (LACDPW 2003).

2.4 Alamitos Bay

Alamitos Bay is located just southeast of the Los Angeles/Long Beach Harbor Complex in Naples/Belmont Shores (Figure 2-5). The Alamitos Bay Marina was created with the dredging of marshland in 1949 and opened in the mid-1950s. Today, the marina serves primarily recreation boats and is surrounded by residential and commercial areas. Located within Alamitos Bay Marina are the island of Naples, Marine Stadium that was built for the 1932 Olympic rowing competition, and the Los Cerritos Channel. Recreational activities include sailing, motor boating, canoeing, kayaking, board sailing, wind surfing, water skiing, and rowing.

The Alamitos Bay Marina entrance is defined by two jetties located adjacent to the San Gabriel River mouth. The City of Long Beach Department of Parks, Recreation, and Marine is responsible for maintaining the recreational navigation of the harbor entrance and marina and conducts regular maintenance dredging within the entrance channel.

2.5 Newport Bay

Newport Bay in the City of Newport Beach, Orange County, California, is located on the Central Orange County coast, roughly 40 mi southeast of Los Angeles, and 70 mi northwest of San Diego (Figure 2-7). Newport Bay is a combination of two distinct bodies of water—Lower Newport Bay and Upper Newport Bay. Lower Newport Bay, referred to as the outer harbor, was formerly a coastal lagoon. It is 4 miles long and is oriented parallel to the coastline. This lagoon was formed between 1824 and 1862 as a result of sand deposition from the Santa Ana River. Upper Newport Bay is geologically much older than the Lower Bay, and it is essentially a submerged river valley formed by a precursor to the Santa Ana River. Today, it comprises a marine salt marsh system. The lower portion of the Upper Bay is heavily urbanized, and supports adjacent housing development, recreational marinas, boat launch ramp facilities, and other commercial uses.

Figure 2-7
Newport Bay

Newport Bay and the adjoining coastal areas of Newport Beach and Corona del Mar present significant recreational opportunities on a local and regional level. The area serves as a major vacation destination within Southern California and the Southwest. The Lower Bay, having an open water area of about 600 acres, offers recreational opportunities to a wide range of boating enthusiasts; from single-person rowboats to large sailing and motor vessels that are capable of trans-ocean navigation. The local beach front communities also support water recreational services, with tourism as one of the most important land use activities in the regional area. These areas offer opportunities for bicycling, roller skating, rollerblading, walking, as well as volleyball, picnicking, sunbathing, swimming, diving, and surfing.

To maintain federally authorized channel depths of -6.1 m (-20 feet [ft]) mean lower low water (MLLW), the USACE has been instrumental in the removal of sediment from the lower portion of the Upper Bay Channel to the Main Channel junction. Dredge material from upper and lower Newport Bay typically contains elevated concentrations of metals and pesticides resulting from urban runoff in the San Diego Creek watershed. Recent dredge material characterizations in the bay show DDT levels above ecological screening values, eliminating ocean disposal as a viable alternatives for dredge material management.

3.0 REGIONAL SEDIMENT CHARACTERIZATION

This section provides an overview of sediment physical and chemical parameters typical of dredge material within the Los Angeles Region study area. Data are summarized for Port Hueneme, POLA, POLB, Santa Monica Bay, San Pedro Bay, LARE, and Newport Bay.

3.1 Sediment Data Sources

The primary source of data used to prepare this summary is the CSTF database constructed specifically for use in developing a Contaminated Sediments Management Strategy document and for the USACE DMMP FS. The primary sources of data used to create the database include work provided by the POLA, POLB, City of Long Beach, the County, USACE, National Oceanic Atmospheric Association (NOAA), and Southern California Coastal Water Research Project (SCCWRP). The database is located on the SCCWRP website at www.sccwrp.org.

The data contained within the CSTF database includes all sediment characterization information available for the region where the material was considered for aquatic or upland disposal. Other data (e.g., grain size, density, etc.) exists for sediment collected within portions of San Pedro Bay, but this information was not included in the current evaluation because it was collected for use in a specific fill project and was never considered for any other form of disposal. In other words, the material would not have been subjected to the recommendations provided in this plan. For example, portions of the Los Angeles Harbor channel deepening project were directly tied to the construction of the Pier 400 terminal within the POLA. The sediments were characterized for physical strength solely to determine fill site compatibility and the analyses did not include chemical measurements. As such, this information was excluded from the CSTF database and is not presented in this report.

Other sources of data that were used include the recently completed Los Angeles DMMP Pilot Studies (USACE 2002a), the Preliminary Draft Marina del Rey DMMP (Chambers Group 1998), and the Year 2000 Biological Survey of the POLA and POLB (MEC 2002).

3.2 Port Hueneme

USACE sediment management activities in Port Hueneme include maintaining the federal navigation channel into the harbor which is used jointly by the Oxnard Harbor District and

U.S. Navy (Naval Base Ventura County). The Corps has also recently conducted a Feasibility Study for deepening the authorized navigation depth of the federal channel which would require removing sediments that have tested high in contaminants during planning study sampling events. Available sediment characterization data includes sample results from these recent planning studies.

3.2.1 Physical Characterization and Distribution

3.2.1.1 Grain Size

Sediment grain size distribution for the Port of Hueneme is summarized in Table 3-1. Sand contents range from 2 percent to 99 percent with an average of 75.5 percent; silt contents range from 2 percent to 98 percent, with an average of 22.3 percent. Clay and gravel are rarely encountered in Port Hueneme dredged material, averaging 0.44 and 1.76 percent respectively.

Table 3-1
Summary of Sediment Physical Characteristics for Port Hueneme Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N
Sand	PCT	2	99	75.5	100	130
Silt	PCT	2	98	22.3	100	130
Clay	PCT	0	34	0.44	100	130
Gravel	PCT	0	56	1.76	100	130
Oil and Grease	mg/kg	41.7	242	146.91	100	29
Total Solids	PCT	61	82.4	76.65	100	46
Total Sulfides	mg/kg	ND	772	161.04	78	45
Total Volatile Solids	PCT	64.1	103	80.2	100	33

ND = non-detected
PCT = percent

3.2.2 Chemical Characteristics and Distribution

3.2.2.1 Inorganics

Port Hueneme sediment inorganic concentrations are summarized in Table 3-2. Overall, inorganic concentrations are quite low with average values never exceeding the very conservative ER-L threshold screen. Only occasionally did maximum concentrations exceed ER-L values. Examples where the maximum values detected exceed the ER-L include cadmium, nickel, and silver. The maximum concentration for mercury exceeds the ER-M screening value.

Table 3-2
Summary of Sediment Inorganic Concentrations for Port Hueneme Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Arsenic	mg/kg	0.7	5.6	2.8	100	46	8.2	70
Cadmium	mg/kg	ND	1.51	0.398	94	46	1.2	9.6
Chromium	mg/kg	5.6	23	12.1	100	45	81	371
Copper	mg/kg	3	31.3	11.5	100	45	34	270
Lead	mg/kg	0.08	17	7	100	45	46.7	218
Manganese	mg/kg	108	237	116.3	100	32	–	–
Mercury	mg/kg	0.02	1.2	0.08	100	45	0.15	0.71
Nickel	mg/kg	4	27	10.3	100	45	20.9	51.6
Selenium	mg/kg	0	0.6	0.17	100	46	–	–
Silver	mg/kg	ND	1.2	0.23	94	46	1	3.7
Butyltin	mg/kg	ND	0.0036	0.00033	53	34	–	–
Dibutyltin	mg/kg	ND	34	2.9	98	45	–	–
Monobutyltin	mg/kg	ND	ND	ND	0	12	–	–
Tributyltin	mg/kg	ND	3.9	3.6	92	45	55.8	–
Zinc	mg/kg	3.1	84	34.3	100	46	150	410

ND = non-detected

3.2.2.2 Semi-Volatile Organics

Port Hueneme sediment semi-volatile organic concentrations (SVOA) are summarized in Table 3-3. As expected, concentrations vary by chemical and the range in concentrations for some compounds is quite large. Sediment screening values (e.g., ER-L, ER-M) do not exist for all the SVOA compounds tested. Acenaphthylene, Anthracene, Fluorene, and Total PAHs had maximum concentrations that exceed ER-L values. Maximum concentrations that meet or exceed ER-M values include Benzo(a)anthracene, Benzo(a)pyrene, Chrysene, Fluoranthene, and Pyrene.

Table 3-3
Summary of Sediment SVOA Concentrations for Port Hueneme Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4-Dichlorophenol	µg/kg	ND	20	6.5	57	46	–	–
2,4-Dimethylphenol	µg/kg	ND	80	26	57	46	–	–
2,4-Dinitrophenol	µg/kg	ND	100	32.6	57	46	–	–
2-Chlorophenol	µg/kg	ND	20	6.5	57	46	–	–
2-Nitrophenol	µg/kg	ND	20	6.5	57	46	–	–

Table 3-3
Summary of Sediment SVOA Concentrations for Port Hueneme Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Acenaphthene	µg/kg	ND	7	0.15	37	46	16	500
Acenaphthylene	µg/kg	ND	240	6.58	57	46	46	640
Anthracene	µg/kg	ND	150	34.64	74	45	85.3	1,100
Benzo(a)anthracene	µg/kg	ND	3,500	115.82	91	45	261	1,600
Benzo(a)pyrene	µg/kg	ND	1,600	117.26	94	45	430	1,600
Benzo(b)fluoranthene	µg/kg	ND	2,300	108.76	92	46	–	–
Benzo(g,h,i)perylene	µg/kg	ND	600	45.53	80	45	–	–
Benzo(k)fluoranthene	µg/kg	ND	1,200	100.6	85	46	–	–
bis(2-ethylhexyl) Phthalate	µg/kg	ND	77	22.37	45	45	–	–
Butylbenzyl Phthalate	µg/kg	ND	60	21.95	45	45	–	–
Chrysene	µg/kg	ND	4,200	155.02	91	45	384	2800
Dibenzo(a,h)anthracene	µg/kg	ND	71	26.91	67	45	–	–
Diethyl phthalate	µg/kg	ND	37	10.23	30	46	–	–
Dimethyl phthalate	µg/kg	ND	42	11.77	31	45	–	–
Di-n-butyl phthalate	µg/kg	ND	64	32	31	46	–	–
Di-n-octyl phthalate	µg/kg	ND	88	22.78	31	46	–	–
Fluoranthene	µg/kg	ND	7,800	216.54	91	45	600	5,100
Fluorene	µg/kg	ND	78	14.7	52	46	19	540
Indeno(1,2,3-c,d)pyrene	µg/kg	ND	1,000	49.39	17	46	–	–
Naphthalene	µg/kg	ND	38	10.7	35	46	160	2,100
Pentachlorophenol	µg/kg	ND	55	30.86	57	46	–	–
Phenanthrene	µg/kg	ND	200	24.19	84	45	240	1,500
Phenol	µg/kg	ND	30	20	57	46	–	–
Pyrene	µg/kg	ND	16,000	441.41	95	43	665	2,600
Total PAHs	µg/kg	0	39,805	1,293.47	100	46	4,022	44,792

ND = non-detected

3.2.2.3 Pesticides/PCBs

Port Hueneme sediment pesticide and PCB concentrations, as reported in the CSTF database, are summarized in Table 3-4. DDT, Total PCBs, Chlordane and Dieldrin are the only pesticides/PCBs that have ER-L and ER-M screening values. DDT has an average concentration that exceeds the ER-L value. Chlordane and Dieldrin have maximum concentrations that exceed the ER-L value. On a particular note, Total PCBs have a very high maximum concentration of 1300 µg/kg which exceeds the ER-M value (180).

Table 3-4
Summary of Sediment Pesticide/PCB Concentrations for Port Hueneme Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4,6-Trichlorophenol	µg/kg	ND	40	20.67	55	6	–	–
4,4'-DDD	µg/kg	0.4	18	2.9	100	196	–	–
4,4'-DDE	µg/kg	.4	27	2.77	100	196	–	–
4,4'-DDT	µg/kg	0.3	28	2.9	100	181	–	–
Total DDT	µg/kg	1.5	14.8	11.3	100	181	1.58	46.1
beta-BHC	µg/kg	ND	ND	ND	0	121	–	–
delta-BHC	µg/kg	ND	ND	ND	0	76	–	–
gamma-BHC (Lindane)	µg/kg	ND	ND	ND	0	136	–	–
Aldrin	µg/kg	ND	14	2.4	59	136	–	–
Aroclor 1016	µg/kg	ND	140	9.3	41	122	–	–
Aroclor 1221	µg/kg	ND	270	18.14	41	122	–	–
Aroclor 1232	µg/kg	ND	140	9.3	41	122	–	–
Aroclor 1242	µg/kg	ND	140	9.3	41	122	–	–
Aroclor 1248	µg/kg	ND	140	9.3	41	122	–	–
Aroclor 1254	µg/kg	ND	1000	90.7	97	152	–	–
Aroclor 1260	µg/kg	ND	300	35.49	79	137	–	–
alpha-Chlordane	µg/kg	ND	8.3	14	41	53	–	–
gamma-Chlordane	µg/kg	ND	ND	ND	ND	68	–	–
Chlordane	µg/kg	5	5	6.25	42	128	.5	6
Dieldrin	µg/kg	ND	5	2.36	59	151	.02	8
Endosulfan I	µg/kg	ND	ND	ND	0	91	–	–
Endosulfan II	µg/kg	ND	ND	ND	0	76	–	–
Endosulfan sulfate	µg/kg	ND	1.8	.09	.09	61	–	–
Endrin	µg/kg	ND	ND	ND	ND	121	–	–
Endrin aldehyde	µg/kg	ND	ND	ND	ND	106	–	–
Endrin ketone	µg/kg	ND	ND	ND	ND	53	–	–
Heptachlor	µg/kg	ND	14	.93	.93	136	–	–
Heptachlor epoxide	µg/kg	ND	14	1.15	1.15	166	–	–
Total PCBs	µg/kg	ND	1300	172.15	58	45	22.7	180
Toxaphene	µg/kg	ND	ND	ND	ND	136	–	–

ND = non-detected

3.3 Santa Monica Bay/Marina del Rey

Within Santa Monica Bay, USACE sediment management activities are limited to Marina del Rey, the mouth of Ballona Creek, and the jetty located at the mouth of King Harbor. Sediment characterization data (other than bathymetry and grain size) is readily available

for Marina del Rey and Ballona Creek, but only one record exists for King Harbor. As such, the majority of the data presented in this section will be limited to the former two locations.

3.3.1 Physical Characterization and Distribution

3.3.1.1 Grain Size

Sediment grain size distribution in Marina del Rey/Ballona Creek sediments is summarized in Table 3-5. Sand content ranges from 51.2 percent to 97.9 percent with an average of 79.3 percent; silts range from less than 1 percent to almost 67 percent, with an average of 25.5 percent; and clays range from less than 1 percent to 59.5 percent with an average of 17 percent. Gravel is rarely encountered in Marina del Rey dredged material, averaging only 2.5 percent. A typical grain size distribution for the entrance of Marina del Rey is shown in Figure 3-1.

Table 3-5
Los Angeles CSTF Database – Summary of Sediment Physical Characteristics for Marina del Rey Dredged Sediments

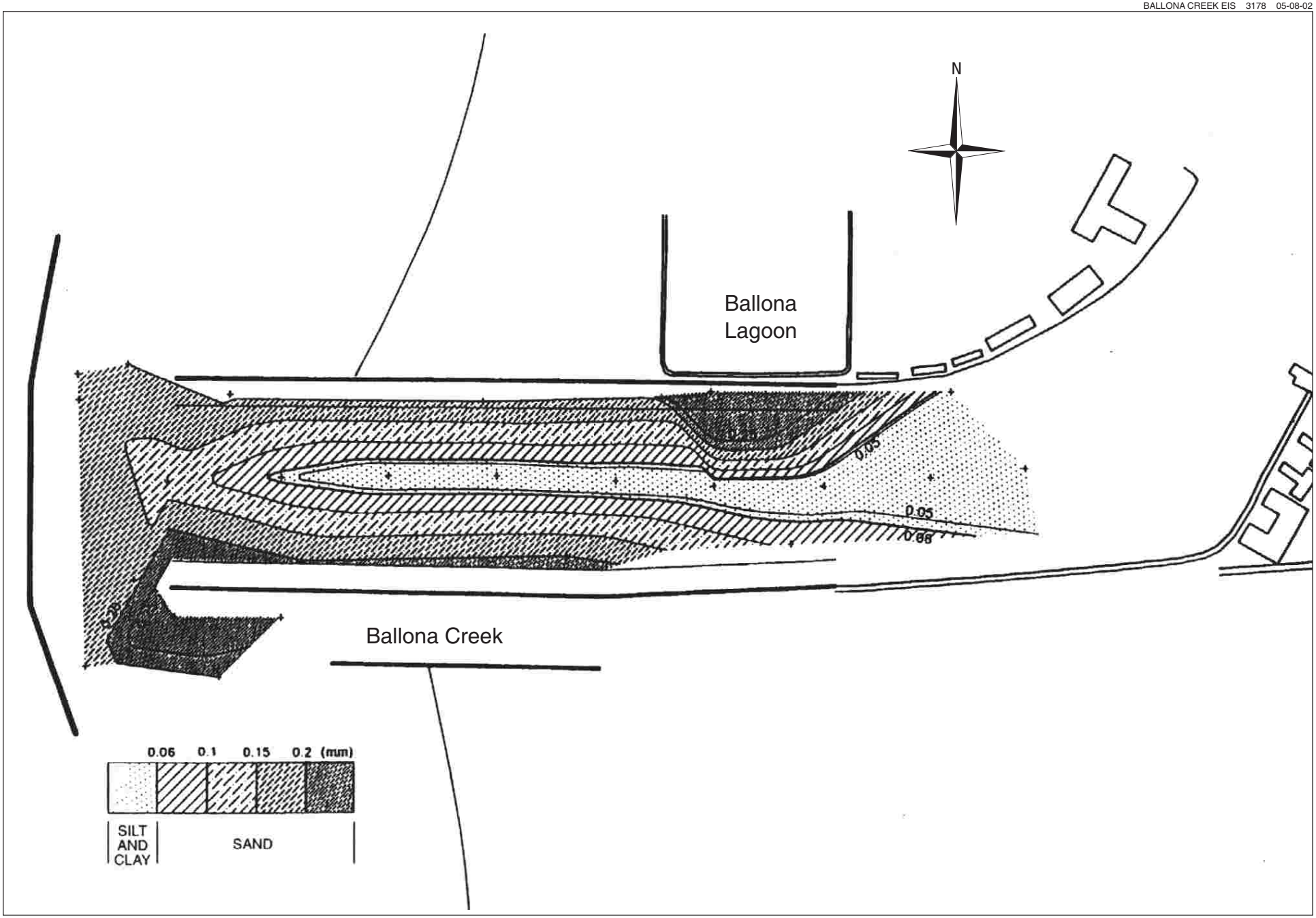
Analyte	Units	Min	Max	Avg	N
Sand	PCT	51.2	97.9	79.3	38
Silt	PCT	0.6	66.8	25.5	98
Clay	PCT	0.9	59.5	17	97
Gravel	PCT	0	27.9	2.5	97
Total Nitrogen	mg/kg	1.2	4,910	1,049.7	140
Oil and Grease	mg/kg	3.0	9,200	1,531.3	150
Total Solids	PCT	57.8	89.4	74.1	65
Total Sulfides	mg/kg	0.1	1,800	239.6	150
Total Volatile Solids	PCT	0.6	16.1	5.3	150
Percent Moisture	PCT	21.5	70	47.1	90

PCT = percent

3.3.2 Chemical Characteristics and Distribution

3.3.2.1 Inorganics

Marina del Rey sediment inorganic concentrations from the CSTF database are summarized in Table 3-6. Inorganics have concentrations ranging from just below the ER-L screening value to well above the ER-M screening value. Copper concentrations contained maximum values of almost two times the ER-M screening value. Arsenic, lead, mercury, and nickel all had maximum concentrations that exceed ER-M values.



Feet
0 500

Source: Moffatt and Nichol, 1994

Figure 3-1

Median Grain Size Distribution for Marina del Rey

Table 3-6
Los Angeles CSTF Database – Summary of Sediment Inorganic Concentrations for Marina del Rey Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Arsenic	mg/kg	1.8	938	12.1	100	190	8.2	70
Barium	mg/kg	30.8	154	97.6	100	15	–	–
Boron	mg/kg	5.7	37.5	22.2	100	15	–	–
Cadmium	mg/kg	0.1	5.5	0.8	100	191	1.2	9.6
Chromium	mg/kg	5.7	86	38.9	100	191	81	371
Copper	mg/kg	1.7	455	126.6	100	191	34	270
Dibutyltin	µg/kg	ND	ND	ND	0	40	–	–
Iron	mg/kg	3,360	71,500	31,371	100	150	–	–
Lead	mg/kg	3.6	575	128.4	100	206	46.7	218
Manganese	mg/kg	26.2	366	206.3	100	150	–	–
Mercury	mg/kg	0.0	2.8	0.5	100	191	.15	.71
Monobutyltin	µg/kg	4.1	6.2	5.1	100	40	–	–
Nickel	mg/kg	3.7	210	21.5	100	191	20.9	51.6
Selenium	mg/kg	0.1	2.4	0.9	100	115	–	–
Silver	mg/kg	0.1	4.8	1.2	100	116	1	3.7
Tetrabutyltin	µg/kg	1.3	11	5.0	100	7	–	–
Tributyltin	µg/kg	1.3	3,040	174.7	100	190	–	–
Zinc	mg/kg	13.9	647	220.1	100	191	150	410

ND = non-detected

3.3.2.2 Semi-Volatile Organics

Marina del Rey SVOA concentrations are summarized in Table 3-7. With the exception of 13 compounds (all the phenolic compounds, acenaphthylene, dimethyl phthalate, and naphthalene), all were detected in at least one of the samples tested. Excluding Fluorene, the minimum and maximum concentrations for semi-volatile organics sampled never exceed the ER-L and ER-M screening values.

3.3.2.3 Pesticides/PCBs

Marina del Rey sediment pesticide and PCB concentrations, as reported in the CSTF database, are summarized in Table 3-8. DDT, Chlordane, and Dieldrin are pesticides that may be of concern for dredging events at Marina Del Ray. DDT has maximum concentrations that exceed the ER-M. Chlordane and Dieldrin have average concentrations that exceed both the ER-L and ER-M screening values. Although Total PCB has a screening value for ER-L (22.7) and ER-M (180), they were not detected at Marina Del Ray.

Table 3-7
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Marina del Rey Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4-Dichlorophenol	µg/kg	ND	ND	ND	0	6	–	–
2,4-Dimethylphenol	µg/kg	ND	ND	ND	0	6	–	–
2,4-Dinitrophenol	µg/kg	ND	ND	ND	0	6	–	–
2-Chlorophenol	µg/kg	ND	ND	ND	0	6	–	–
2-Methyl-4,6-dinitrophenol	µg/kg	ND	ND	ND	0	6	–	–
2-Nitrophenol	µg/kg	ND	ND	ND	0	6	–	–
4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	0	6	–	–
4-Nitrophenol	µg/kg	ND	ND	ND	0	6	–	–
Acenaphthene	µg/kg	0.7	0.7	0.7	100	59	16	500
Acenaphthylene	µg/kg	ND	ND	ND	0	59	46	640
Anthracene	µg/kg	6.0	34	16.4	100	59	85.3	1,100
Benzo(a)anthracene	µg/kg	2.0	135	54.8	100	59	261	1,600
Benzo(a)pyrene	µg/kg	0.7	142	48.4	100	59	430	1,600
Benzo(b)fluoranthene	µg/kg	16	116	65.1	100	38	–	–
Benzo(bk)fluoranthenes	µg/kg	1.0	60	35.8	100	21	–	–
Benzo(g,h,i)perylene	µg/kg	1.0	212	93.7	100	59	–	–
Benzo(k)fluoranthene	µg/kg	18	127	64.2	100	38	–	–
bis(2-ethylhexyl) Phthalate	µg/kg	30	2,600	691.7	100	7	–	–
Butylbenzyl Phthalate	µg/kg	28	341	150.3	100	7	–	–
Chrysene	µg/kg	2.0	204	64.2	100	59	384	2,800
Dibenzo(a,h)anthracene	µg/kg	34	34	34	100	59	–	–
Diethyl phthalate	µg/kg	53	53	53	100	7	–	–
Dimethyl phthalate	µg/kg	ND	ND	ND	0	7	–	–
Di-n-butyl phthalate	µg/kg	21	64	33.5	100	7	–	–
Di-n-octyl phthalate	µg/kg	64	64	64	100	7	–	–
Fluoranthene	µg/kg	1.0	334	70.5	100	59	600	5,100
Fluorene	µg/kg	0.6	30	11.4	100	59	19	540
Indeno(1,2,3-c,d)pyrene	µg/kg	1.0	131	61.6	100	59	–	–
Methoxychlor	mg/kg	5.0	6.5	5.5	100	30	–	–
Methoxychlor	µg/kg	7.1	7.1	7.1	100	46	–	–
Naphthalene	µg/kg	ND	ND	ND	0	59	160	2,100
Pentachlorophenol	µg/kg	ND	ND	ND	0	6	–	–
Phenanthrene	µg/kg	0.8	226	47.1	100	59	240	1,500
Phenol	µg/kg	ND	ND	ND	0	6	–	–
Pyrene	µg/kg	0.6	593	127.7	100	59	665	2,600
Total PAHs	µg/kg	15	1,890	723.7	100	31	4,022	44,792

ND = non-detected

Table 3-8
Los Angeles CSTF Database – Summary of Sediment Pesticide/PCB Concentrations for Marina del Rey Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	0	6	–	–
2,4'-DDD	µg/kg	ND	ND	ND	0	60	–	–
2,4'-DDT	µg/kg	ND	ND	ND	0	60	–	–
4,4'-DDD	µg/kg	0.6	175	20.6	100	196	–	–
4,4'-DDE	µg/kg	1.0	169	32.3	100	196	–	–
4,4'-DDT	µg/kg	0.7	86	19.4	100	181	1.58	46.1
alpha-BHC	µg/kg	0.4	0.4	0.4	100	136	–	–
beta-BHC	µg/kg	ND	ND	ND	0	121	–	–
delta-BHC	µg/kg	0.4	0.8	0.6	100	76	–	–
gamma-BHC (Lindane)	µg/kg	1.0	1.0	1.0	100	136	–	–
Aldrin	µg/kg	0.6	0.6	0.6	100	136	–	–
Aroclor 1016	µg/kg	ND	ND	ND	0	122	–	–
Aroclor 1221	µg/kg	ND	ND	ND	0	122	–	–
Aroclor 1232	µg/kg	ND	ND	ND	0	122	–	–
Aroclor 1242	µg/kg	ND	ND	ND	0	122	–	–
Aroclor 1248	µg/kg	ND	ND	ND	0	122	–	–
Aroclor 1254	µg/kg	20	153	82.6	100	152	–	–
Aroclor 1260	µg/kg	10	755	127.8	100	137	–	–
alpha-Chlordane	µg/kg	0.4	8.3	3.3	100	53	–	–
gamma-Chlordane	µg/kg	0.5	28	4.7	100	68	–	–
Chlordane	µg/kg	10	562	144.6	100	128	.5	6
Dieldrin	µg/kg	1.0	71.6	27.7	100	151	.02	8
Endosulfan I	µg/kg	0.4	23	5.5	100	91	–	–
Endosulfan II	µg/kg	2.0	26	6.1	100	76	–	–
Endosulfan sulfate	µg/kg	1.0	2.0	1.6	100	61	–	–
Endrin	µg/kg	0.9	5.0	2.2	100	121	–	–
Endrin aldehyde	µg/kg	0.6	9.0	3.2	100	106	–	–
Endrin ketone	µg/kg	0.6	4.0	1.5	100	53	–	–
Heptachlor	µg/kg	0.3	0.3	0.3	100	136	–	–
Heptachlor epoxide	µg/kg	0.3	3.9	1.3	100	166	–	–
Total PCBs	µg/kg	ND	ND	ND	0	45	22.7	180
Toxaphene	µg/kg	32	32	32	100	136	–	–

ND = non-detected

Although no ER-L screening values exists for PCBs, elevated concentrations are reported for Marina del Rey sediments. Concentrations of Aroclor 1260, a common PCB cogener, range from 10 µg/kg to 755 µg/kg. Other screening values for PCBs (e.g., PSDDA SLs) suggest concentrations as low as 130 µg/kg may cause aquatic impacts.

3.4 San Pedro Bay

Sediment management areas within San Pedro Bay include the POLA, POLB, and the shipping lanes, which connect the two with the outer harbor (i.e. outside of the federal breakwater). The majority of the sediment characterization data available for the ports has been separated into two categories (POLA and POLB), based on study sponsor. As such, the data are reported separately within this section.

3.4.1 Physical Characteristics and Distribution

3.4.1.1 Grain Size

A general survey of the San Pedro Harbor, conducted by MEC in 2000 (MEC 2002), shows a variable grain size distribution within San Pedro Bay, depending on the habitats sampled (Figure 3-2 and Table 3-9). As expected, the shallow water man-made mitigation areas in the Ports consistently contained the highest sand content while the back channel, dead-end reaches contained the highest silt/clay content. The following subsections summarize the available grain size and organic carbon data conducted specifically as part of various dredge characterization projects and contained in the CSTF database.

3.4.1.1.1 Port of Los Angeles

Sediment grain size distribution within the POLA is summarized in Table 3-10. Sand contents range from 2 percent to 99.4 percent with an average of 55.1 percent; silt contents range from 0 percent to 80 percent, with an average of 27.8 percent; and clay contents range from 0 percent to 45.4 percent with an average of 9.3 percent. Gravel contents are much lower, ranging from 0 percent to 46.9 percent and averaging 2.1 percent. Organic carbon contents for POLA dredge materials are reported ranging from 0.1 percent to 11 percent, and averaging 1.2 percent.

3.4.1.1.2 Port of Long Beach

Sediment grain size distribution within the POLB is summarized in Table 3-11. Sand contents range from 4.6 percent to 98.9 percent with an average of 44.4 percent; silt contents range from 0.9 percent to 77.1 percent, with an average of 37.4 percent; and clay contents range from 0.1 percent to 42.8 percent with an average of 15.7 percent. Gravel contents range from 0 percent to 20.7 percent, with an average of only 1.9 percent. Organic carbon contents for POLB dredge materials are reported ranging from 0 percent to 2.6 percent, and averaging 0.7 percent.

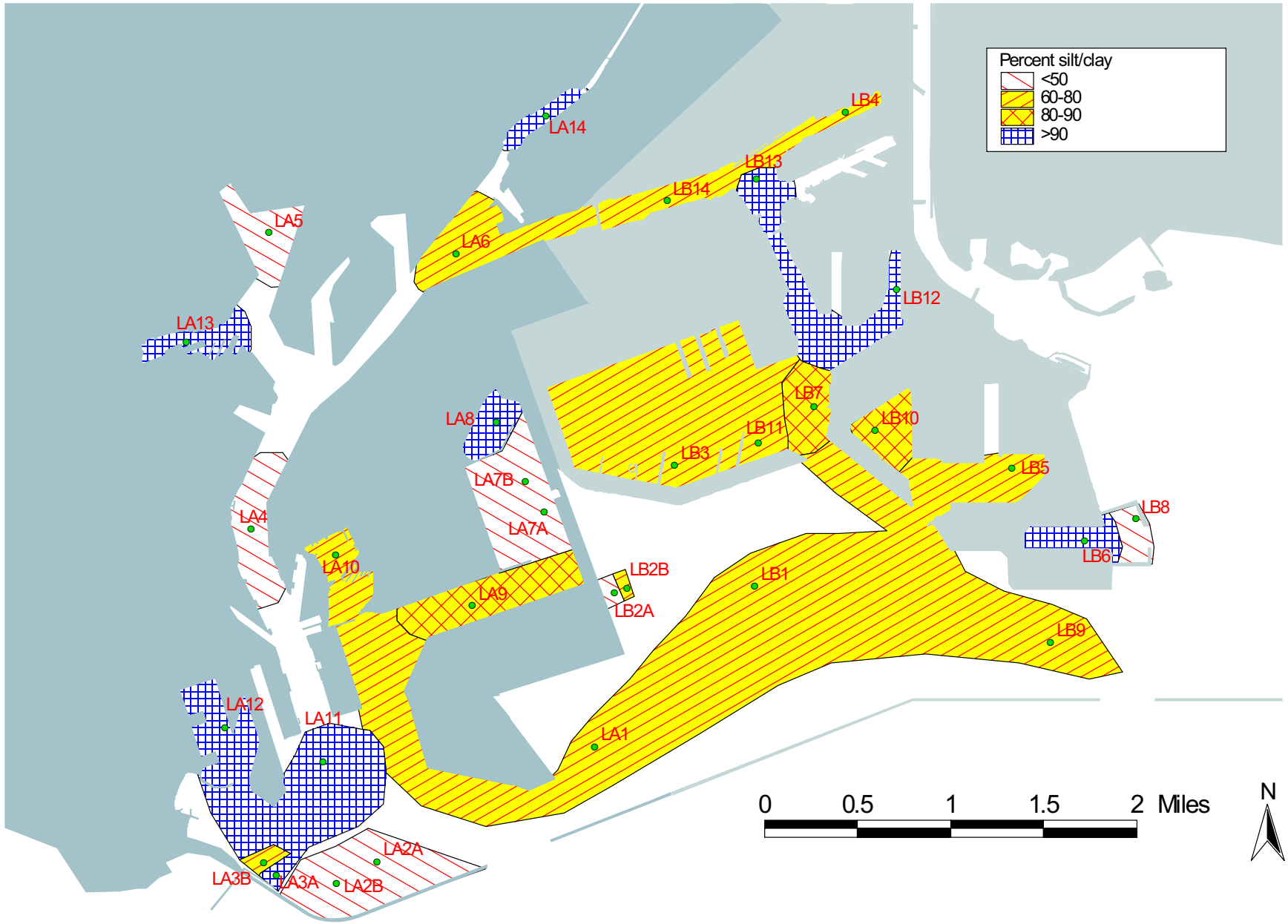


Figure 3-2

Percentage of Silt/Clay in Sediments Sampled in Long Beach and Los Angeles Harbors, January 2000

Table 3-9
Sediment Grain Size Characteristics in Long Beach and Los Angeles Harbors, January 2000

Habitat / Station	Depth (m)	Median size (phi)	Median size (microns)	Dispersion	Skewness	% Gravel	% Sand	% Silt	% Clay	% Coarse	% Fines (Silt + Clay)	Mean (phi)	Mean (microns)
Deepwater Open													
LA1	13	5.945	16.234	3.03	0.136	0	29.412	44.674	25.915	0.018	70.588	6.356	12.208
LA11	16	7.645	4.997	2.424	0.01	0	7.298	48.737	43.965	0.032	92.702	7.668	4.916
LB1	12	4.691	38.713	1.598	0.408	0	24.121	64.547	11.332	0.03	75.879	5.343	24.638
LB9	25	4.776	36.498	2.138	0.392	0	35.773	49.983	14.244	0.042	64.227	5.614	20.414
Deepwater Channel													
LA4	16	2.511	175.45	2.471	0.598	0.265	75.071	13.788	10.876	0.885	24.664	3.989	62.965
LA9	16	7.066	7.464	2.863	-0.068	0	15.958	51.553	32.489	0.056	84.042	6.872	8.539
LB7	24	6.946	8.111	2.693	0.06	0	10.651	53.77	35.579	0.03	89.349	7.106	7.257
LB13	20	7.167	6.956	2.336	0.162	1.042	5.068	55.194	38.696	1.288	93.891	7.547	5.347
LB14	18	5.9	16.744	2.979	0.284	0	19.88	52.356	27.765	0.013	80.12	6.745	9.323
Deepwater Basin													
LA5	17	3.297	101.716	2.894	0.689	0.049	63.097	20.34	16.514	0.12	36.854	5.29	25.552
LA6	16	4.938	32.611	2.459	0.029	5.096	23.226	57.825	13.853	11.163	71.678	5.009	31.062
LA12	11	8.349	3.066	2.542	0.163	0	0.747	45.235	54.017	0.216	99.253	8.764	2.3
LB3	15	6.111	14.465	2.921	0.156	0	25.432	46.985	27.583	0.026	74.568	6.568	10.542
LB5	15	5.495	22.181	2.738	0.296	0.021	24.356	53.087	22.535	0.115	75.622	6.304	12.654
LB10	21	6.854	8.643	3.13	0.076	0	16.672	47.88	35.448	0.031	83.328	7.091	7.333
LB11	15	5.51	21.948	2.658	0.32	0	23.036	55.843	21.122	0.022	76.964	6.36	12.173
Deepwater Slip													
LA13	11	7.477	5.614	3.121	0.201	0	6.491	49.551	43.958	0.01	93.509	8.106	3.63
LB4	15	5.007	31.098	3.169	0.378	0.059	30.85	44.921	24.171	0.795	69.092	6.206	13.548
LB6	17	6.83	8.791	2.491	0.238	0	6.258	58.327	35.415	0.037	93.742	7.422	5.832
LB8	15	3.197	109.033	0.773	-0.064	0.642	86.579	9.308	3.471	0.814	12.779	3.148	112.809
LB12	16	8.056	3.756	2.249	0.195	0	0.553	48.732	50.714	0	99.447	8.494	2.773

Table 3-9
Sediment Grain Size Characteristics in Long Beach and Los Angeles Harbors, January 2000

Habitat / Station	Depth (m)	Median size (phi)	Median size (microns)	Dispersion	Skewness	% Gravel	% Sand	% Silt	% Clay	% Coarse	% Fines (Silt + Clay)	Mean (phi)	Mean (microns)
Shallow Mitigation													
LA2A	4	3.9	66.974	1.864	0.282	0	52.801	36.443	10.756	0.27	47.199	4.427	46.503
LA2B	4	3.089	117.524	1.577	0.351	0.017	72.491	19.365	8.128	0.241	27.493	3.643	80.069
LA7A	4	2.985	126.325	1.608	0.419	0.359	78.523	12.363	8.755	1.266	21.118	3.659	79.187
LA7B	4	4.03	61.22	2.763	0.534	0.084	49.643	32.958	17.314	0.177	50.272	5.505	22.02
LB2A	4	3.488	89.121	0.788	0.192	0.043	80.136	15.21	4.611	0.124	19.822	3.639	80.262
LB2B	4	4.651	39.791	1.897	0.387	0	36.956	51.206	11.837	0.065	63.044	5.386	23.916
Shallow Water Open													
LA3A	4	5.901	16.731	2.615	0.346	0.838	11.327	61.614	26.221	1.01	87.835	6.805	8.942
LA3B	4	6.129	14.293	2.487	0.328	0	7.865	66.392	25.743	0.123	92.135	6.944	8.122
Shallow Water Channel													
LA14	6	6.304	12.655	2.439	0.369	0	8.534	65.755	25.711	0.274	91.466	7.203	6.786
Shallow Water Basin													
LA8	4	7.088	7.352	2.412	0.215	0.016	5.067	56.76	38.157	0.06	94.917	7.607	5.13
LA10	6	6.778	9.112	3.44	-0.115	0	30.063	37.163	32.774	0.068	69.937	6.383	11.985

Table 3-10
Los Angeles CSTF Database – Summary of Sediment Physical Characteristics for Port of Los Angeles Dredged Sediments

Analyte	Units	Min	Max	Avg	N
Sand	PCT	2.0	99.4	55.1	207
Silt	PCT	0	80	27.8	207
Clay	PCT	0	45.4	9.3	229
Granule	PCT	0	12.7	1.6	126
Gravel	PCT	0	46.9	2.1	72
Ammonia	mg/kg	2.9	92.0	17.4	89
TOC	PCT	0.1	11	1.2	283
Total Nitrogen	mg/kg	0	5,200	1,100	31
Oil and Grease	mg/kg	0.5	32,000	919.2	168
Total Solids	PCT	39.7	88.5	66.8	232
Dissolved sulfides	mg/kg	0	14	0.8	250
Total Sulfides	mg/kg	0.1	3120	106	270
Total Volatile Solids	PCT	0.6	10.1	3.6	47
Percent Moisture	PCT	12.9	43.7	27.8	43

ND = non-detected
PCT = percent

Table 3-11
Los Angeles CSTF Database – Summary of Sediment Physical Characteristics for Port of Long Beach Sediments

Analyte	Units	Min	Max	Avg	N
Sand	PCT	4.6	98.9	44.4	86
Silt	PCT	0.9	77.1	37.4	153
Clay	PCT	0.1	42.8	15.7	159
Gravel	PCT	0	20.7	1.9	133
Ammonia	mg/kg	(9)	430	76.2	12
TOC	PCT	0.0	2.6	0.7	130
Total Nitrogen	mg/kg	400	2,537	1,049.8	9
Oil and Grease	mg/kg	6.7	1,420	169.8	85
Total Solids	PCT	36	89.8	69.6	291
Dissolved Sulfides	mg/kg	0	42	4.8	371
Total Sulfides	mg/kg	0.1	920	79.3	373
Total Volatile Solids	PCT	1.0	3.3	2.1	13
Percent Moisture	PCT	12.9	43.7	27.8	43

ND = non-detected
PCT = percent

3.4.2 Chemical Characteristics and Distribution

3.4.2.1 Inorganics

3.4.2.1.1 Port of Los Angeles

POLA dredge material inorganic concentrations from the CSTF database are summarized in Table 3-12. Nine metals have maximum concentrations that exceed the ER-M values. Copper has maximum concentrations that are almost ten times the ER-M value; mercury has an average concentration that exceeds the screening values for ER-L and ER-M.

Table 3-12
Los Angeles CSTF Database – Summary of Sediment Inorganic Concentrations for Port of Los Angeles Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Aluminum	mg/kg	6,190	35,100	16,339	100	32	–	–
Antimony	mg/kg	0.1	26.8	2.8	100	32	–	–
Arsenic	mg/kg	0.2	130	6.8	100	286	8.2	70
Barium	mg/kg	51.3	381	196.5	100	32	–	–
Beryllium	mg/kg	0.8	1.1	0.9	100	32	–	–
Butyltin	µg/kg	20.0	28	24	100	3	–	–
Cadmium	mg/kg	0.1	10.1	0.9	100	286	1.2	9.6
Chromium	mg/kg	11.9	1040	54.8	100	286	81	371
Cobalt	mg/kg	4.1	13.9	8.1	100	32	–	–
Copper	mg/kg	1.6	2,510	95.6	100	286	34	270
Dibutyltin	µg/kg	1.0	150,000	1904.8	100	295	–	–
Iron	mg/kg	1,270	44,700	24,653	100	32	–	–
Lead	mg/kg	1.6	1,280	60	100	286	46.7	218
Manganese	mg/kg	155	489	272.9	100	32	–	–
Mercury	mg/kg	0	677	3.5	100	283	.15	.71
Molybdenum	mg/kg	0.3	63.6	5.9	100	32	–	–
Monobutyltin	µg/kg	1.0	9,000	581.6	100	292	–	–
Nickel	mg/kg	6.6	119	27.6	100	286	20.9	51.6
Selenium	mg/kg	0.1	15	1.2	100	286	–	–
Silver	mg/kg	0.1	21	0.5	100	286	1	3.7
Tetrabutyltin	µg/kg	2.0	61	16.6	100	248	–	–
Thallium	mg/kg	0.1	0.5	0.3	100	32	–	–
Tin	mg/kg	0.3	56.6	9.5	100	32	–	–
Tributyltin	µg/kg	1.0	250,000	2,344.2	100	295	–	–
Vanadium	mg/kg	32.8	106.0	53.1	100	32	–	–
Zinc	mg/kg	10.0	2,320	159.6	100	286	150	410

3.4.2.1.2 Port of Long Beach

POLB dredge material inorganic concentrations from the CSTF database are summarized in Table 3-13. Copper, mercury, and lead have average concentrations that exceed the conservative ER-L value. About half of the inorganic compounds have concentrations that exceed the ER-M value.

Table 3-13
Los Angeles CSTF Database – Summary of Sediment Inorganic Concentrations for Port of Long Beach Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Antimony	mg/kg	7.7	13.2	11	100	63	–	–
Arsenic	mg/kg	0.95	43	9.2	100	297	8.2	70
Beryllium	mg/kg	0.3	1.3	0.7	100	63	–	–
Butyltin	µg/kg	2.0	2.0	2.0	100	8	–	–
Cadmium	mg/kg	0	6.6	0.8	100	398	1.2	9.6
Chromium	mg/kg	7.4	513	42.8	100	297	81	371
Copper	mg/kg	1.9	1,400	64.4	100	286	34	270
Dibutyltin	µg/kg	0.7	32	6.2	100	352	–	–
Lead	mg/kg	0.8	6,940	50.6	100	422	46.7	218
Mercury	mg/kg	0.02	4.7	0.6	100	316	.15	.71
Monobutyltin	µg/kg	1.9	28.6	6.5	100	281	–	–
Nickel	mg/kg	1.7	133	23.4	100	317	20.9	51.6
Selenium	mg/kg	0.1	5.1	0.7	100	297	–	–
Silver	mg/kg	0.01	7.2	0.6	100	297	1	3.7
Tetrabutyltin	µg/kg	1.0	36	9.3	100	321	–	–
Thallium	mg/kg	0.3	0.6	0.5	100	63	–	–
Tributyltin	µg/kg	1.0	72.7	14.1	100	352	–	–
Zinc	mg/kg	14.4	4,170	145.6	100	367	150	410

3.4.2.2 Semi-Volatile Organics

3.4.2.2.1 Port of Los Angeles

POLA sediment SVOA concentrations are summarized in Table 3-14. With the exception of 15 compounds (all of the phenolic compounds, dibenzofuran, dibutyl phthalate, and methoxychlor), all were detected in at least one of the samples tested. Eight semi-volatile organics have an average concentration that exceeds the ER-L value. Of particular note, Total PAHs have a maximum concentration that is five times the ER-M screening value.

Table 3-14
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Port of Los Angeles Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
1-Methylnaphthalene	µg/kg	5.0	337	48.1	100	24	–	–
1-Methylphenanthrene	µg/kg	14	1,570	188.3	100	24	–	–
2,3,4,6-Tetrachlorophenol	µg/kg	ND	ND	ND	0	22	–	–
2,3,6-trimethylnaphthalene	µg/kg	11	851	134.5	100	24	–	–
2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	0	62	–	–
2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	0	90	–	–
2,4-Dichlorophenol	µg/kg	12	12	12	100	90	–	–
2,4-Dimethylphenol	µg/kg	0.2	3.1	1.2	100	90	–	–
2,4-Dinitrophenol	µg/kg	ND	ND	ND	0	43	–	–
2,6-Dichlorophenol	µg/kg	ND	ND	ND	0	22	–	–
2,6-Dimethylnaphthalene	µg/kg	6.0	248	53.8	100	24	–	–
2-Chloronaphthalene	µg/kg	12	12	12	100	41	–	–
2-Chlorophenol	µg/kg	0.2	0.2	0.2	100	97	–	–
2-Methyl-4,6-dinitrophenol	µg/kg	ND	ND	ND	0	83	–	–
2-Methylnaphthalene	µg/kg	0.1	428	51.5	100	119	70	670
2-Methylphenol	µg/kg	0.2	0.2	0.2	100	62	–	–
2-Nitrophenol	µg/kg	ND	ND	ND	0	90	–	–
3-Methylphenol	µg/kg	ND	ND	ND	0	22	–	–
4,6-Dinitro-2-methylphenol	µg/kg	ND	ND	ND	0	7	–	–
4-Chloro-3-methylphenol	µg/kg	ND	ND	ND	0	90	–	–
4-Methylphenol	µg/kg	0.2	1.6	0.9	100	62	–	–
4-Nitrophenol	µg/kg	ND	ND	ND	0	90	–	–
Acenaphthene	µg/kg	0.3	1,500	166.3	100	276	16	500
Acenaphthylene	µg/kg	0.1	450	77.8	100	276	46	640
Anthracene	µg/kg	0.1	24,000	327.9	100	276	85.3	1,100
Benzo(a)anthracene	µg/kg	0.1	17,200	350.6	100	276	261	1,600
Benzo(a)pyrene	µg/kg	0.1	8,710	520.3	100	276	430	1,600
Benzo(b)fluoranthene	µg/kg	0.1	7,160	530.6	100	273	–	–
Benzo(bk)fluoranthenes	µg/kg	420	450	435	100	3	–	–
Benzo(e)pyrene	µg/kg	335	4,650	1,345.1	100	24	–	–
Benzo(g,h,i)perylene	µg/kg	0.1	2,510	249.9	100	276	–	–
Benzo(k)fluoranthene	µg/kg	0.1	13,100	585.4	100	273	–	–
bis(2-ethylhexyl) Phthalate	µg/kg	0.0	2,330	293.5	100	189	–	–
Butylbenzyl Phthalate	µg/kg	10	373	57.2	100	189	–	–
Chrysene	µg/kg	0.1	19,000	486.5	100	276	384	2800
Dibenzo(a,h)anthracene	µg/kg	0.3	966	134.5	100	271	–	–
Dibenzofuran	µg/kg	ND	ND	ND	0	3	–	–
Dibutyl Phthalate	µg/kg	ND	ND	ND	0	31	–	–
Diethyl phthalate	µg/kg	9.8	53	19.5	100	189	–	–
Dimethyl phthalate	µg/kg	12	695	212.1	100	189	–	–
Di-n-butyl phthalate	µg/kg	0.1	260	52.5	100	158	–	–

Table 3-14
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Port of Los Angeles Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Di-n-octyl phthalate	µg/kg	12	170	59.5	100	189	–	–
Fluoranthene	µg/kg	0.1	73,400	1,003.8	100	276	600	5,100
Fluorene	µg/kg	0.1	1,520	142.2	100	276	19	540
Indeno(1,2,3-c,d)pyrene	µg/kg	0.0	2,810	287	100	276	–	–
Methoxychlor	µg/kg	ND	ND	ND	0	238	–	–
Naphthalene	µg/kg	0.3	2,600	209.7	100	271	160	2,100
Pentachlorophenol	µg/kg	ND	ND	ND	0	90	–	–
Perylene	µg/kg	222	2,320	716.6	100	24	–	–
Phenanthrene	µg/kg	0.1	4720	252.2	100	276	240	1,500
Phenol	µg/kg	0.8	0.8	0.8	100	90	–	–
Pyrene	µg/kg	0.1	56,300	1,330.7	100	276	665	2,600
Total PAHs	µg/kg	0.0	236,000	8125	100	160	4022	44,792

ND = non-detected

3.4.2.2.2 Port of Long Beach

POLB SVOA concentrations are summarized in Table 3-15. Sediment screening values (e.g., ER-L, ER-M) do not exist for all the SVOA compounds tested. Acenapthene has an average concentration that exceeds both the ER-L and ER-M screening values. Benzo(a)anthracene , Benzo(a)pyrene, Fluoranthene, and Fluorene have high maximum concentrations that exceed both the ER-L and ER-M screening values. Naphthalene has a maximum concentration that exceeds the ER-L screening value.

Table 3-15
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Port of Long Beach Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
1,2,4,5-Tetrachlorobenzene	µg/kg	ND	ND	ND	0	6	–	–
1,2,4-Trichlorobenzene	µg/kg	3,200	5,900	4,275	100	68	–	–
1,2-Dichlorobenzene	µg/kg	ND	ND	ND	0	64	–	–
1,2-Diphenylhydrazine	µg/kg	ND	ND	ND	0	5	–	–
1,3-Dichlorobenzene	µg/kg	ND	ND	ND	0	64	–	–
1,4-Dichlorobenzene	µg/kg	3,000	5,200	3,800	100	68	–	–
1-Chloronaphthalene	µg/kg	ND	ND	ND	0	5	–	–
1-Naphthylamine	µg/kg	ND	ND	ND	0	5	–	–
2,3,4,6-Tetrachlorophenol	µg/kg	ND	ND	ND	0	5	–	–
2,4,5-Trichlorophenol	µg/kg	ND	ND	ND	0	69	–	–

Table 3-15
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Port of Long Beach Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4,6-Trichlorophenol	µg/kg	ND	ND	ND	0	175	–	–
2,4-Dichlorophenol	µg/kg	ND	ND	ND	0	175	–	–
2,4-Dimethylphenol	µg/kg	ND	ND	ND	0	175	–	–
2,4-Dinitrophenol	µg/kg	ND	ND	ND	0	175	–	–
2,4-Dinitrotoluene	µg/kg	4,000	7,860	5,390	100	68	–	–
2,6-Dichlorophenol	µg/kg	ND	ND	ND	0	5	–	–
2,6-Dinitrotoluene	µg/kg	ND	ND	ND	0	64	–	–
2-Chloronaphthalene	µg/kg	ND	ND	ND	0	132	–	–
2-Chlorophenol	µg/kg	3,300	5,700	4,200	100	179	–	–
2-Methyl-4,6-dinitrophenol	µg/kg	ND	ND	ND	0	34	–	–
2-Methylnaphthalene	µg/kg	ND	ND	ND	0	137	–	–
2-Methylphenol	µg/kg	ND	ND	ND	0	69	–	–
2-Naphthylamine	µg/kg	ND	ND	ND	0	5	–	–
2-Nitroaniline	µg/kg	ND	ND	ND	0	64	–	–
2-Nitrophenol	µg/kg	ND	ND	ND	0	175	–	–
2-Picoline	µg/kg	ND	ND	ND	0	5	–	–
3,3'-Dichlorobenzidine	µg/kg	ND	ND	ND	0	64	–	–
3-Methylcholanthrene	µg/kg	ND	ND	ND	0	5	–	–
3-Nitroanaline	µg/kg	ND	ND	ND	0	5	–	–
3-Nitroaniline	µg/kg	ND	ND	ND	0	59	–	–
4,6-Dinitro-2-methylphenol	µg/kg	ND	ND	ND	0	141	–	–
4-Aminobiphenyl	µg/kg	ND	ND	ND	0	5	–	–
4-Bromophenyl Phenyl Ether	µg/kg	ND	ND	ND	0	64	–	–
4-Chloro-3-methylphenol	µg/kg	3,500	6,800	4,500	100	174	–	–
4-Chloroaniline	µg/kg	ND	ND	ND	0	64	–	–
4-Chlorophenyl Phenyl Ether	µg/kg	ND	ND	ND	0	64	–	–
4-Methylphenol	µg/kg	ND	ND	ND	0	64	–	–
4-Nitroanaline	µg/kg	ND	ND	ND	0	123	–	–
4-Nitrophenol	µg/kg	3,600	8,600	4,975	100	179	–	–
7,12-Dimethylbenz(a)anthracene	µg/kg	ND	ND	ND	0	5	–	–
a-,a-Dimethylphenethylamine	µg/kg	ND	ND	ND	0	5	–	–
Acenaphthene	µg/kg	10	9,100	681	100	347	16	500
Acenaphthylene	µg/kg	3	510	59.6	100	343	46	640
Acetophenone	µg/kg	ND	ND	ND	0	5	–	–
Aniline	µg/kg	ND	ND	ND	0	64	–	–
Anthracene	µg/kg	0.0	2,250	125.3	100	343	85.3	1,100
Benzidine	µg/kg	ND	ND	ND	0	5	–	–
Benzo(a)anthracene	µg/kg	0.1	2,740	203.1	100	343	261	1,600
Benzo(a)pyrene	µg/kg	0.0	5,220	347.6	100	343	430	1,600
Benzo(b)fluoranthene	µg/kg	0.0	9,030	490.9	100	255	–	–

Table 3-15
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Port of Long Beach Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Benzo(bk)fluoranthenes	µg/kg	20	3,700	330.5	100	88	–	–
Benzo(g,h,i)perylene	µg/kg	0.0	3,470	219.3	100	343	–	–
Benzo(k)fluoranthene	µg/kg	0.0	4,690	349.7	100	255	–	–
Benzoic Acid	µg/kg	ND	ND	ND	0	64	–	–
Benzyl Alcohol	µg/kg	ND	ND	ND	0	64	–	–
Bis(2-chloroethoxy)methane	µg/kg	ND	ND	ND	0	64	–	–
Bis(2-chloroethyl)ether	µg/kg	ND	ND	ND	0	64	–	–
Bis(2-chloroisopropyl)ether	µg/kg	ND	ND	ND	0	64	–	–
bis(2-ethylhexyl) Phthalate	µg/kg	15	1,110	179	100	200	–	–
Butylbenzyl Phthalate	µg/kg	4	180	54.7	100	200	–	–
Chrysene	µg/kg	0.1	4,250	270.5	100	343	–	–
Dibenz(a,j)acridine	µg/kg	ND	ND	ND	0	5	–	–
Dibenzo(a,h)anthracene	µg/kg	10	1,830	118.1	100	343	–	–
Dibenzofuran	µg/kg	ND	ND	ND	0	69	–	–
Diethyl phthalate	µg/kg	2	59	17.1	100	200	–	–
Dimethyl phthalate	µg/kg	39	39	39	100	200	–	–
Di-n-butyl phthalate	µg/kg	5	205	90.3	100	200	–	–
Di-n-octyl phthalate	µg/kg	11	28	15.6	100	200	–	–
Diphenylamine	µg/kg	ND	ND	ND	0	5	–	–
Ethyl methanesulfonate	µg/kg	ND	ND	ND	0	5	–	–
Fluoranthene	µg/kg	0.1	7,280	269.7	100	343	600	5,100
Fluorene	µg/kg	0.1	7,670	228.7	100	343	19	540
Hexachlorobenzene	µg/kg	ND	ND	ND	0	59	–	–
Hexachlorobutadiene	µg/kg	ND	ND	ND	0	64	–	–
Hexachlorocyclopentadiene	µg/kg	ND	ND	ND	0	64	–	–
Hexachloroethane	µg/kg	ND	ND	ND	0	64	–	–
Indeno(1,2,3-c,d)pyrene	µg/kg	0.1	5,000	263.7	100	338	–	–
Isophorone	µg/kg	ND	ND	ND	0	64	–	–
Methoxychlor	µg/kg	ND	ND	ND	0	254	–	–
Methyl methanesulfonate	µg/kg	ND	ND	ND	0	5	–	–
Naphthalene	µg/kg	0.1	825	105.7	100	343	160	2,100
Nitrobenzene	µg/kg	ND	ND	ND	0	64	–	–
N-Nitrosodimethylamine	µg/kg	ND	ND	ND	0	64	–	–
N-Nitroso-di-n-butylamine	µg/kg	ND	ND	ND	0	5	–	–
N-Nitrosodi-n-propylamine	µg/kg	3,600	6,400	4,775	100	68	–	–
N-Nitrosodiphenylamine	µg/kg	ND	ND	ND	0	64	–	–
N-Nitrosopiperidine	µg/kg	ND	ND	ND	0	5	–	–
p-Dimethylaminoazobenzene	µg/kg	ND	ND	ND	0	5	–	–
Pentachlorobenzene	µg/kg	ND	ND	ND	0	5	–	–
Pentachloronitrobenzene	µg/kg	ND	ND	ND	0	5	–	–
Pentachlorophenol	µg/kg	3,100	6,800	4,325	100	179	–	–

Table 3-15
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for Port of Long Beach Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Phenacetin	µg/kg	ND	ND	ND	0	5	–	–
Phenanthrene	µg/kg	0.1	15900	264.7	100	343	240	1,500
Phenol	µg/kg	20	6200	2,252.5	100	179	–	–
Pronamide	µg/kg	ND	ND	ND	0	5	–	–
Pyrene	µg/kg	0.0	12,400	624.1	100	347	665	2,600
Total PAHs	µg/kg	ND	54,000	3,944.7	57	176	4,022	44,792

3.4.2.3 Pesticides/PCBs

3.4.2.3.1 Port of Los Angeles

POLA sediment pesticide and PCB concentrations, as reported in the CSTF database, are summarized in Table 3-16. Total PCBs have average concentrations that exceed both the ER-L and the ER-M screening values. DDT and Dieldrin both have maximum concentrations that exceed ER-L values.

Table 3-16
Los Angeles CSTF Database – Summary of Sediment Pesticide/PCB Concentrations for Port of Los Angeles Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4'-DDD	µg/kg	0.0	79.7	9.4	100	50	–	–
2,4'-DDE	µg/kg	0.0	1,442	56.8	100	50	–	–
2,4'-DDT	µg/kg	0.0	64.3	12.5	100	50	–	–
4,4'-DDD	µg/kg	0.0	650	18.4	100	267	–	–
4,4'-DDE	µg/kg	0.0	713	56.2	100	267	–	–
4,4'-DDT	µg/kg	0.0	450	21.8	100	267	1.58	46.1
Aldrin	µg/kg	1.9	23	9.5	100	280	–	–
alpha-BHC	µg/kg	0.7	20	5	100	280	–	–
alpha-Chlordane	µg/kg	2.1	65	8.2	100	197	–	–
Aroclor 1016	µg/kg	100	1,300	682.5	100	159	–	–
Aroclor 1221	µg/kg	100	130	115	100	154	–	–
Aroclor 1232	µg/kg	100	130	115	100	154	–	–
Aroclor 1242	µg/kg	13	1230	333.2	100	280	–	–
Aroclor 1248	µg/kg	100	130	115	100	159	–	–
Aroclor 1254	µg/kg	0.0	4,000	190	100	285	–	–
Aroclor 1260	µg/kg	13	6,900	303.2	100	285	–	–
Aroclor 1262	µg/kg	ND	ND	ND	0	16	–	–
beta-BHC	µg/kg	1	1	1	100	280	–	–
Chlordane	µg/kg	ND	ND	ND	0	88	.5	6

Table 3-16
Los Angeles CSTF Database – Summary of Sediment Pesticide/PCB Concentrations for Port of Los Angeles Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
delta-BHC	µg/kg	1.1	1.4	1.3	100	280	–	–
Dieldrin	µg/kg	0.4	3.4	1.3	100	280	.02	8
Endosulfan I	µg/kg	1.1	14	5.5	100	280	–	–
Endosulfan II	µg/kg	0.4	130	44.5	100	280	–	–
Endosulfan sulfate	µg/kg	9	9	9	100	280	–	–
Endrin	µg/kg	0.0	30	4.9	100	280	–	–
Endrin aldehyde	µg/kg	ND	ND	ND	0	235	–	–
Endrin ketone	µg/kg	0.6	2.4	1.5	100	175	–	–
gamma-BHC (Lindane)	µg/kg	0.8	4.1	1.9	100	280	–	–
gamma-Chlordane	µg/kg	2.2	130	22.9	100	197	–	–
Heptachlor	µg/kg	2.4	2.6	2.5	100	271	–	–
Heptachlor epoxide	µg/kg	ND	ND	ND	0	271	–	–
Mirex	µg/kg	ND	ND	ND	0	32	–	–
Total PCBs	µg/kg	1.2	6,900	332.2	100	206	22.7	180
Toxaphene	µg/kg	ND	ND	ND	0	280	–	–

ND = non-detected

3.4.2.3.2 Port of Long Beach

POLB sediment pesticide and PCB concentrations, as reported in the CSTF database, are summarized in Table 3-17. The average concentration for DDT is much greater than the screening value for ER-L. Dieldrin has a maximum concentration that is greater than the ER-L screening value. Total PCBs have data points that exceed both the ER-L (22.7) and ER-M (180) screening values. Concentrations of Aroclor 1260, a common PCB cogener, range from 10 µg/kg to 1,200 µg/kg. Other screening values for PCBs (e.g., PSDDA SLs) suggest concentrations as low as 130 µg/kg may cause aquatic impacts.

3.5 Los Angeles River Estuary

As described in Section 2.3.1, sediment deposition in the LARE reflects the flow pattern of runoff from the Los Angeles River. The eastward bending of the estuary flow course has resulted in a deposition pattern where silt predominantly accretes along the northeastern shore (inner bend) of the estuary, whereas sand mostly accumulates on the opposite side

(outer bend) of the estuary. Lenses of relatively coarse sediment are present off Queensway Marina and at locations upstream.

Table 3-17
Los Angeles CSTF Database – Summary of Sediment Pesticide/PCB Concentrations for Port of Long Beach Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,3,7,8-TCDD	ng/kg	ND	ND	ND	0	12	–	–
2,3,7,8-TCDF	ng/kg	ND	ND	ND	0	12	–	–
4,4'-DDD	µg/kg	0.4	150	11.1	100	309	–	–
4,4'-DDE	µg/kg	2	160	19	100	309	–	–
4,4'-DDT	µg/kg	0.2	610	69.2	100	314	1.58	46.1
Aldrin	µg/kg	2	100	26.6	100	261	–	–
alpha-BHC	µg/kg	5.3	120	30.8	100	256	–	–
alpha-Chlordane	µg/kg	ND	ND	ND	0	133	–	–
Aroclor 1016	µg/kg	240	920	654	100	257	–	–
Aroclor 1221	µg/kg	ND	ND	ND	0	267	–	–
Aroclor 1232	µg/kg	ND	ND	ND	0	267	–	–
Aroclor 1242	µg/kg	ND	ND	ND	0	285	–	–
Aroclor 1248	µg/kg	40	1,720	384.3	100	266	–	–
Aroclor 1254	µg/kg	10	1,000	155.6	100	285	–	–
Aroclor 1260	µg/kg	10	1,200	160.1	100	290	–	–
Aroclor 1262	µg/kg	ND	ND	ND	0	3	–	–
beta-BHC	µg/kg	ND	ND	ND	0	256	–	–
Chlordane	µg/kg	ND	ND	ND	0	126	.5	6
delta-BHC	µg/kg	ND	ND	ND	0	259	–	–
Dieldrin	µg/kg	2	122	44.4	100	264	.02	8
gamma-BHC (Lindane)	µg/kg	18	102	73.8	100	261	-	-
gamma-Chlordane	µg/kg	0.1	1.2	0.4	100	133	-	-
Endosulfan I	µg/kg	0.6	0.6	0.6	100	259	-	-
Endosulfan II	µg/kg	ND	ND	ND	0	259	-	-
Endosulfan sulfate	µg/kg	0.5	3	1.8	100	258	-	-
Endrin	µg/kg	0.3	114	21.3	100	264	-	-
Endrin aldehyde	µg/kg	5	5	5	100	259	-	-
Endrin ketone	µg/kg	0.3	2.2	1	100	133	-	-
Heptachlor	µg/kg	16	86	62.8	100	264	-	-
Heptachlor epoxide	µg/kg	0.2	1	0.5	100	259	-	-
Total PCBs	µg/kg	44	74	59.4	100	28	22.7	180
Toxaphene	µg/kg	98	10300	1382.1	100	260	-	-

ND = non-detected

Physical and chemical laboratory results from previous maintenance dredging characterization studies are available dating back to 1979. These results have been summarized and are presented in the following sections.

3.5.1 Physical Characterization and Distribution

3.5.1.1 Grain Size

Sediment grain size distribution in the LARE is summarized in Table 3-18. Sand contents range from 19 percent to 97 percent with an average of 61 percent; silt contents range from 1 percent to 45 percent, with an average of 24 percent; and clay contents range from 2 percent to 36 percent with an average of 13 percent. Gravel is rarely encountered in LARE dredged material, averaging only 1.4 percent.

Table 3-18
Los Angeles CSTF Database – Summary of Sediment Physical Characteristics for LARE Dredged Sediments

Analyte	Units	Min	Max	Avg	N
Sand	PCT	18.8	97	61.2	12
Silt	PCT	1.2	45.4	24.1	12
Clay	PCT	1.8	36.2	13.3	12
Gravel	PCT	0.0	4.8	1.4	12
TOC	PCT	0.1	3	1.3	11
Total Sulfides	mg/kg	0.3	2,500	540.9	16
Dissolved sulfides	mg/kg	0.2	110	36.6	16

PCT = percent

3.5.1.2 Engineering Properties

With the exception of the recently completed DMMP Pilot Capping Study (USACE 2002a), little data exists on the geotechnical engineering properties of dredge materials from the LARE. Table 3-19 provides a summary of engineering properties from sediment cores collected throughout the dredge prism for the 2001 maintenance dredge event. Specific gravities for the material ranged from 2.3 to 2.7; dry densities from 655 kilograms per cubic meter (kg/m^3) to 1,920 kg/m^3; and void ratios from 0.39 to 2.05. The material had a liquid limit ranging from 30 to 55, and a plastic limit from 28 to 45. Moisture contents (reported as a percent) ranged from 14.6 for the areas with the highest sand content to 115.9 for areas with higher silt and clay contents.

Table 3-19 Summary of Geotechnical Engineering Parameters for Cores from the LARE

Sample Number	Mudline El. MLLW (Ft.)	Sample Depth Interval	Top of Sample El. MLLW (Ft.)	Sediment Description	LABORATORY TEST RESULTS										
									Atterberg Limits			Grain Size Distribution			
					Moisture Content (%)	Specific Gravity	Dry Density (kg/m^3)	Void Ratio	Liquid Limit	Plastic Limit	PI	% Gravel	% Sand	% Silt	% Clay
LAR-Core-1-1	-1.4	0-3	-1.4	Sand	18.5	2.623	1,760	0.49				0	97.4	1.6	1
LAR-Core-1-2		3-4.5	-4.4	Sand	26.2	2.626	1,550	0.69				0.8	96	2.1	1.1
LAR-Core-1-3		4.5-7.5	-5.9	Slightly clayey, very silty sand	59.3	2.559	1,010	1.52				0.7	70.4	21.4	7.5
LAR-Core-1-4		7.5-10	-8.9	Slightly clayey, very silty sand	47.4	2.704	1,190	1.28				0.8	64.5	27.1	7.6
LAR-Core-1-5		10-13	-11.4	Organic slightly clayey, very sandy silt(OL)	61.3	2.656	1,010	1.63	43	34	9	1.8	46.8	39.2	12.2
LAR-Core-1-6		13-14.8	-14.4	Organic, clayey, very sandy Silt (OH)	68.9	2.513	915	1.73	55	45	10	0.5	27	57	15.5
															1460
LAR-Core-2-1	-2.2	0-3	-2.2	Slightly silty Sand with trace gravel	30.6	2.653	1,460	0.81				5	83.4	7.7	3.9
LAR-Core-2-2		3-6	-5.2	Sand with trace silt	25.7	2.702	1,600	0.69				0.3	93.9	4.2	1.6
LAR-Core-2-3		6-9	-8.2	Silty Sand	32.2	2.604	1,410	0.84				0.2	84.9	11.5	3.4
LAR-Core-2-4		9-12	-11.2	Slightly clayey, very silty Sand	61.5	2.54	995	1.56	30	28	2	2.1	66.5	25	6.4
LAR-Core-2-5		12-15.2	-14.2	Silty Sand	52.1	2.583	1,110	1.35				0.4	85.7	9.6	4.3
LAR-Core-3-1	-3.8	0-3	-3.8	Sand	19.9							0.5	98	0.8	0.7
LAR-Core-3-2		3-4.9	-6.8	Sand with trace gravel	14.6	2.667	1,920	0.39				5	93.7	0.6	0.7
LAR-Core-3-3		4.9-8	-8.7	Slightly clayey, silty Sand	77.7	2.633	865	2.05				0.8	77.3	15.4	6.5
LAR-Core-3-4		8-11	-11.8	Slightly clayey, very silty Sand	72.3	2.289	865	1.65				0	66.4	25.2	8.4
LAR-Core-3-5		11-13	-14.8	Slightly clayey, very silty Sand	49.1	2.404	1,110	1.18				0.7	68.5	24	6.8
LAR-Core-3-6		13-16	-16.8	Sand	28	2.538	1,490	0.71				0	98.3	1.1	0.6
LAR-Core-4-1	-4	0-3	-4	Very sandy silt	27.1							0	47.4	51.9	0.7
LAR-Core-4-2		3-4.6	-7	Organic, slightly clayey, silty Sand	115.9	2.639	655	3.06				0	72.8	20.3	6.9
LAR-Core-4-3		4.6-6.4	-8.6	Slightly silty Sand	30.8	2.326	1,360	0.72				0	90.2	7.7	2.1
LAR-Core-4-4		6.4-9.4	-10.4	Organic, slightly clayey, very silty Sand	69.7	2.624	930	1.83				0	57.9	32.7	9.4
LAR-Core-4-5		9.4-13.0	-13.4	Organic, very silty Sand	63.6	2.519	960	1.60				0	76.9	18.3	4.8
LAR-Core-4-6		13.0-16.4	-17	Sand	31.5	2.545	1,410	0.80				0	97.4	1.4	1.2

3.5.2 Chemical Characteristics and Distribution

3.5.2.1 Inorganics

LARE material inorganic concentrations from the CSTF database are summarized in Table 3-20. Inorganics have concentrations ranging from just below the ER-L and the ER-M screening values. Four inorganic compounds (lead, mercury, nickel, zinc) have an average concentration that exceeds the ER-L screening value.

Table 3-20
Los Angeles CSTF Database – Summary of Sediment Inorganic Concentrations for LARE Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Arsenic	mg/kg	0.7	12.3	5.0	100	17	8.2	70
Cadmium	mg/kg	0.1	2.6	0.9	100	17	1.2	9.6
Chromium	mg/kg	10	69.5	36.4	100	17	81	371
Copper	mg/kg	11.4	116	51.8	100	17	34	270
Lead	mg/kg	7.2	200	64.9	100	17	46.7	218
Mercury	mg/kg	0.0	0.6	0.3	100	16	.15	.71
Nickel	mg/kg	8.0	39	22.5	100	17	20.9	51.6
Selenium	mg/kg	0.5	2.2	0.9	100	17	-	-
Silver	mg/kg	0.1	1.2	0.4	100	17	1	3.7
Zinc	mg/kg	42.3	360	151.7	100	17	150	410
Butyltin	µg/kg	2.0	24	13.3	100	9	-	-
Tributyltin	µg/kg	1.9	290	69.7	100	15	-	-
Dibutyltin	µg/kg	1.0	54	21.9	100	15	-	-
Monobutyltin	µg/kg	ND	ND	ND	0	6	-	-

ND = non-detected

3.5.2.2 Semi-Volatile Organics

LARE sediment SVOA concentrations are summarized in Table 3-21. With the exception of three compounds (2-methylnaphthalene, dibenzofuran, and methoxychlor), all were detected in at least one of the samples tested. As expected, concentrations vary by chemical and the range in concentrations for some compounds is quite large. Sediment screening values (e.g., ER-L, ER-M) do not exist for all the SVOA compounds tested. With the exception of Acenapthene and Fluorene, average concentrations for semi-volatile organics were below the ER-L screening value. Concentrations for Total PAHs never exceeded the ER-L and ER-M screening values.

Table 3-21
Los Angeles CSTF Database – Summary of Sediment SVOA Concentrations for LARE Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2-Methylnaphthalene	µg/kg	ND	ND	ND	0	9		
Acenaphthene	µg/kg	18	18	18	100	16	16	500
Acenaphthylene	µg/kg	20	28	22.7	100	16	46	640
Anthracene	µg/kg	16	350	69.5	100	16	85.3	1100
Benzo(a)anthracene	µg/kg	28	380	129.3	100	16	-	-
Benzo(a)pyrene	µg/kg	25	530	217	100	16	430	1,600
Benzo(b)fluoranthene	µg/kg	36	730	284.2	100	16	–	–
Benzo(g,h,i)perylene	µg/kg	38	294	123.6	100	16	–	–
Benzo(k)fluoranthene	µg/kg	28	480	198.3	100	16	–	–
Bis(2-ethylhexyl) Phthalate	µg/kg	29	16,200	3,977.3	100	16	–	–
Butylbenzyl Phthalate	µg/kg	14	449	164.5	100	16	–	–
Chrysene	µg/kg	41	530	199.6	100	16	–	–
Dibenzo(a,h)anthracene	µg/kg	18	68	41	100	16	–	–
Dibenzofuran	µg/kg	ND	ND	ND	0	9	–	–
Diethyl phthalate	µg/kg	22	23	22.7	100	16	–	–
Dimethyl phthalate	µg/kg	24	24	24	100	16	–	–
Di-n-butyl phthalate	µg/kg	28	311	91.9	100	16	–	–
Di-n-octyl phthalate	µg/kg	79	240	160.2	100	16	–	–
Fluoranthene	µg/kg	62	840	261.9	100	16	600	5,100
Fluorene	µg/kg	18	39	27.8	100	16	19	540
Indeno(1,2,3-c,d)pyrene	µg/kg	25	310	164.6	100	16	–	–
Methoxychlor	µg/kg	ND	ND	ND	0	15	–	–
Naphthalene	µg/kg	55	55	55	100	16	160	2,100
Phenanthrene	µg/kg	30	233	95.4	100	16	240	1,500
Pyrene	µg/kg	90	1,200	431.3	100	16	665	2,600
Total PAHs	µg/kg	1270	2,580	1,858	100	7	4,022	44,792

ND = non-detected

Other data, not yet contained in the CSTF database, suggests that some areas of the LARE contain much higher PAH concentrations, which easily exceeded the lower screening threshold values (Chambers Group 1998). As an example, a total PAH concentration of 17,473 µg/kg was recorded at one station in the LARE during a 1997 sampling event. The most recent sampling event (USACE 2002a), however, yielded results similar to those presented above.

3.5.2.3 Pesticides/PCBs

Despite the large potential upland source area to the LARE, pesticides and PCBs are rarely detected during sediment characterization studies for maintenance dredging (Table 3-22). DDT and its derivatives were detected and reported in the CSTF database, but at concentrations very close to the method detection limits. Arochlor 1248, 1254, and 1260 were also detected, but no ER-L type values exist for screening evaluation. The same is true for total dioxins, which were also detected.

Table 3-22
Los Angeles CSTF Database – Summary of Sediment Pesticide/PCB Concentrations for LARE Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,3,7,8-TCDD	µg/kg	ND	ND	ND	0	3	–	–
4,4'-DDD	µg/kg	0.0	0.0	0.0	100	15	–	–
4,4'-DDE	µg/kg	0.0	0.1	0.0	100	15	–	–
4,4'-DDT	µg/kg	0.0	0.0	0.0	100	15	1.58	46.1
alpha-BHC	µg/kg	ND	ND	ND	0	15	–	–
beta-BHC	µg/kg	ND	ND	ND	0	15	–	–
delta-BHC	µg/kg	ND	ND	ND	0	15	–	–
gamma-BHC (Lindane)	µg/kg	ND	ND	ND	0	15	–	–
Aldrin	µg/kg	ND	ND	ND	0	15	–	–
Aroclor 1016	µg/kg	ND	ND	ND	0	15	–	–
Aroclor 1221	µg/kg	ND	ND	ND	0	15	–	–
Aroclor 1232	µg/kg	ND	ND	ND	0	15	–	–
Aroclor 1242	µg/kg	ND	ND	ND	0	15	–	–
Aroclor 1248	µg/kg	0.1	0.1	0.1	100	15	–	–
Aroclor 1254	µg/kg	0.1	0.1	0.1	100	15	–	–
Aroclor 1260	µg/kg	0.0	94	15.5	100	15	–	–
Chlordane	µg/kg	ND	ND	ND	0	15	.5	6
Dieldrin	µg/kg	0.0	0.0	0.0	100	15	.02	8
Endosulfan I	µg/kg	ND	ND	ND	0	15	–	–
Endosulfan II	µg/kg	ND	ND	ND	0	15	–	–
Endosulfan sulfate	µg/kg	ND	ND	ND	0	15	–	–
Endrin	µg/kg	0.0	0.0	0.0	100	15	–	–
Endrin aldehyde	µg/kg	ND	ND	ND	0	15	–	–
Heptachlor	µg/kg	ND	ND	ND	0	15	–	–
Heptachlor epoxide	µg/kg	ND	ND	ND	0	15	–	–
Toxaphene	µg/kg	ND	ND	ND	0	15	–	–
Total TCDD	ng/kg	3.4	4.3	3.8	100	3	–	–

ND = non-detected

3.6 Newport Bay

As described in Section 2, sediment deposition into Newport Bay is primarily from the San Diego Creek watershed entering into Upper Newport Bay. The USACE maintains a federal navigation channel inside the Bay to provide access to the U.S. Coast Guard and passenger ferry boats that operate from the Bay. Physical and chemical laboratory results from previous USACE maintenance dredging sediment characterizations are available and are presented in the following sections.

3.6.1 Physical Characterization and Distribution

3.6.1.1 Grain Size

Sediment grain size distribution in Newport Bay sediments is summarized in Table 3-23. Sand content ranges from 7.12 percent to 67.41 percent with an average of 37.02 percent; silts range from less than 13.07 percent to almost 38.83 percent, with an average of 26.87 percent; and clays range from less than 15.11 percent to 54.02 percent with an average of 34.61 percent. Gravel content ranges from 0.04 percent to 4.41 percent with an average of 1.48 percent.

Table 3-23
Summary of Sediment Physical Characteristics for Newport Bay Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N
Sand	PCT	7.12	67.41	37.02	100	4
Silt	PCT	13.07	38.83	26.87	100	4
Clay	PCT	15.11	54.02	34.61	100	4
Gravel	PCT	0.04	4.41	1.48	100	4
Total Solids	PCT	51.75	71.5	60.48	100	4
Total Sulfides	mg/kg	282	829	530.75	100	4

PCT = percent

3.6.2 Chemical Characteristics and Distribution

3.6.2.1 Inorganics

Newport Bay sediment inorganic concentrations from the CSTF database are summarized in Table 3-24. About half of the samples tested had maximum concentrations that exceed the ER-L screening value. Mercury had maximum concentrations that were just above the ER-M screening value.

Table 3-24
Summary of Sediment Inorganic Concentrations for Newport Bay Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Arsenic	mg/kg	4.65	9.87	7.5	100	4	8.2	70
Cadmium	mg/kg	0.59	1.42	1.02	100	4	1.2	9.6
Chromium	mg/kg	24.6	59	44.21	100	4	81	371
Copper	mg/kg	15.7	49	35.87	100	4	34	270
Lead	mg/kg	13.2	38	27	100	4	46.7	218
Mercury	mg/kg	0.09	0.72	0.385	100	4	0.15	0.71
Nickel	mg/kg	12.1	27	21.20	100	4	20.9	51.6
Silver	mg/kg	0.08	0.23	0.165	100	4	1	3.7
Zinc	mg/kg	49.05	132	97.96	100	4	–	–
Dibutyltin	mg/kg	<1	<1	<1	100	4	–	–
Monobutyltin	mg/kg	<1	<1	<1	100	4	–	–
Tributyltin	mg/kg	<1	<1	<1	100	4	–	–

3.6.2.2 Semi-Volatile Organics

Newport Bay sediment SVOA concentrations are summarized in Table 3-25. With the exception of two compounds (Acenapthylene and Napthalene), all were detected in at least one of the samples tested. Sediment screening values (e.g., ER-L, ER-M) do not exist for all the SVOA compounds tested. Minimum and maximum concentrations for semi-volatile organics tested were all below the ER-L and ER-M screening values.

Table 3-25
Summary of Sediment SVOA Concentrations for Newport Bay Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4-Dichlorophenol	µg/kg	<50	<50	<50	100	4	–	–
2,4-Dimethylphenol	µg/kg	<100	<100	<100	100	4	–	–
2,4-Dinitrophenol	µg/kg	<200	<200	<200	100	4	–	–
2-Chlorophenol	µg/kg	<50	<50	<50	100	4	–	–
2-Nitrophenol	µg/kg	<100	<100	<100	100	4	–	–
Acenaphthene	µg/kg	ND	2.4	0.6	75	4	16	500
Acenaphthylene	µg/kg	ND	ND	ND	0	4	46	640
Anthracene	µg/kg	2	10.8	7	100	4	85.3	1,100
Benzo(a)anthracene	µg/kg	14.2	78.8	72.42	100	4	–	–
Benzo(a)pyrene	µg/kg	18.3	93	59	100	4	430	1,600
Benzo(b)fluoranthene	µg/kg	21.2	84	56.82	100	4	–	–
Benzo(g,h,i)perylene	µg/kg	15.4	66.4	46.65	100	4	–	–

Table 3-25
Summary of Sediment SVOA Concentrations for Newport Bay Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Benzo(k)fluoranthene	µg/kg	17.6	73	50.9	100	4	–	–
Chrysene	µg/kg	24.1	123	63.62	100	4	–	–
Dibenzo(a,h)anthracene	µg/kg	ND	31.8	13.2	50	4	–	–
Fluoranthene	µg/kg	22.2	164	78.55	100	4	600	5,100
Fluorene	µg/kg	ND	1	0.25	75	4	19	540
Indeno(1,2,3-c,d)pyrene	µg/kg	ND	84.5	50.9	75	4	–	–
Naphthalene	µg/kg	ND	ND	ND	0	4	160	2,100
Pentachlorophenol	µg/kg	<50	<50	<50	100	4	19	540
Phenanthrene	µg/kg	6.5	68.5	29.77	100	4	240	1,500
Phenol	µg/kg	<100	<100	<100	100	4	–	–
Pyrene	µg/kg	35.8	178	99.17	100	4	160	2,100
Total PAH	µg/kg	212	1,178.6	679.07	100	4	4022	44,792

3.6.2.3 Pesticides/PCBs

Newport Bay sediment pesticide and PCB concentrations, as reported in the CSTF database, are summarized in Table 3-26. Total detectable DDT concentrations range from 29 to 161 µg/kg and average 74 µg/kg. This average is above the ER-M of 46.1 µg/kg which suggests that DDT is a chemical of concern for this area. It is important to note that the majority of the total DDT concentrations detected are actually DDE, a breakdown product of DDT. Other pesticides were detected, but no screening data are available for comparison.

Table 3-26
Summary of Sediment Pesticide/PCB Concentrations for Newport Bay Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
2,4,6-Trichlorophenol	µg/kg	<50	<50	<50	100	4	–	–
4,4'-DDD	µg/kg	3.8	21.3	10.4	100	4	–	–
4,4'-DDE	µg/kg	24.5	89.5	49.2	100	4	–	–
4,4'-DDT	µg/kg	<1	<1	<1	100	4	–	–
Total Detectable DDTs	µg/kg	29.6	161.9	74.42	100	4	1.58	46.1
beta-BHC	µg/kg	<1	<1	<1	100	4	–	–
delta-BHC	µg/kg	<1	<1	<1	100	4	–	–
gamma-BHC (Lindane)	µg/kg	<1	<1	<1	100	4	–	–
Aldrin	µg/kg	<1	<1	<1	100	4	–	–
Aroclor 1016	µg/kg	<10	<10	<10	100	4	–	–
Aroclor 1221	µg/kg	<10	<10	<10	100	4	–	–

Table 3-26
Summary of Sediment Pesticide/PCB Concentrations for Newport Bay Dredged Sediments

Analyte	Units	Min	Max	Avg	Percent Detection	N	ER-L	ER-M
Aroclor 1232	µg/kg	<10	<10	<10	100	4	–	–
Aroclor 1242	µg/kg	<10	<10	<10	100	4	–	–
Aroclor 1248	µg/kg	<10	<10	<10	100	4	–	–
Aroclor 1254	µg/kg	<10	<10	<10	100	4	–	–
Aroclor 1260	µg/kg	<10	<10	<10	100	4	–	–
Chlordane	µg/kg	<1	<1	<1	100	4	.5	6
Dieldrin	µg/kg	<1	<1	<1	100	4	.02	8
Endosulfan I	µg/kg	<1	<1	<1	100	4	–	–
Endosulfan II	µg/kg	<1	<1	<1	100	4	–	–
Endrin	µg/kg	<1	<1	<1	100	4	–	–
Endrin aldehyde	µg/kg	<1	<1	<1	100	4	–	–
Heptachlor	µg/kg	<1	<1	<1	100	4	–	–
Heptachlor epoxide	µg/kg	<1	<1	<1	100	4	–	–
Total PCBs	µg/kg	0	0	0	100	4	22.7	180
Toxaphene	µg/kg	<10	<10	<10	100	4	–	–

4.0 REVIEW OF AVAILABLE PRE-TREATMENT TECHNOLOGIES

Dredge material pre-treatment is a process where sediments are modified or conditioned prior to final treatment or disposal in an effort to maximize efficiency and/or reduce costs. In some cases, this pre-treatment step is all that is required or performed on the material to meet the target removal or remediation goals. As such, the term pre-treatment can be misleading in these instances because it ultimately becomes the final treatment step. Example pre-treatment processes include dewatering and particle separation.

The two primary reasons for pre-treating dredge material are (1) to condition the material so that it meets the requirements or physical characteristics of the final treatment or disposal components; and (2) to reduce the overall volume and/or weight of the sediments required for transport, treatment or disposal. Each is discussed briefly below.

Because most treatment technologies require a continuous feedstock of homogenous and physically uniform material to operate most efficiently, pre-treatment is an effective tool for achieving this goal. Dredge material solids content, particle size, and organic carbon content are some of the physical characteristics most commonly adjusted prior to final treatment. With the exception of adjusting sediment water content, pre-treatment is typically not required prior to dredge material disposal. Dewatering dredge material prior to disposal will reduce the weight of the material and, therefore, should result in reduced transportation and disposal costs. An added benefit to dewatering dredge materials prior to upland disposal is that it can eliminate potential water losses during transport which can reduce potential ancillary environmental impacts. Lastly, most upland landfills have a maximum moisture content that is allowed for material disposal (e.g., passing the paint filter test) so dewatering is typically a required component prior to implementing this alternative.

The second reason for pre-treating contaminated dredge materials is to reduce the overall volume and/or weight of the material prior to final treatment or disposal. Both treatment and disposal costs are heavily influenced by sediment volume and weight not only as a result of increased production volumes and longer operating schedules, but also from increased transportation and disposal tipping fees for the treated material. Physical separation technologies are available that can separate the typically clean, coarser-grained fractions of the sediment from the more contaminated fine-grained portion. Ideally this would result in

unrestricted disposal or beneficial reuse of a large percentage of the total dredge volume and, in turn, focuses the treatment effort on a much smaller residual sediment fraction. The use of physical particle separation as a sediment treatment alternative is discussed later in this document.

4.1 Dewatering Technologies

Typically, dewatering is employed to reduce the amount of water in sediments or residues to prepare the sediments for further treatment or disposal. The need for dewatering is determined by the water requirements or limitations of the treatment or disposal technologies and the solids content of the sediments following removal and transport. Within the Los Angeles Region, dewatering is commonly performed as a preliminary step for upland disposal or as a way to consolidate dredge materials used for nearshore fill projects (e.g., port terminal expansions).

Mechanically dredged sediments typically have solids contents comparable to that of *in situ* sediments (about 50% by weight for most fine-grained sediments). Hydraulically dredged sediments occur in slurry containing solids contents typically ranging from 10 to 20 percent. While some hydraulic dredge pumps are capable of higher solids contents (>20 percent), the average solids content in an extended dredging operation is rarely greater than 20 percent. To prepare dredged sediments for most treatment or disposal technologies, water must be removed and/or the solids content of the sediments must be made more uniform. Dewatering will be required for most sediment remedial alternatives that involve hydraulic dredging or transport. If the sediments are mechanically dredged and transported, the dewatering requirements may be greatly reduced or eliminated. Some technologies (e.g., cement-based stabilization) actually depend on the *in situ* water in the sediment to complete the chemical reactions that work to bind the contaminants thus eliminating the need to dewater prior to treatment.

Another function performed by dewatering is the reduction of the volume and weight of the sediments, which decreases the subsequent costs of handling, transport, and treatment and/or disposal of the solids. Dewatering will reduce the weight of a sediment load, but the effects of dewatering on the volume of a sediment load are more complex. When sediment slurry is dewatered, the removal of free water will directly reduce the volume of material

remaining in a nearly one-to-one relationship. Sediments that have been partially dewatered or mechanically dredged will lose additional water, but the volume will not always be reduced because the water driven from the voids between sediment particles is replaced by air. Some dewatering processes may even increase the bulk volume of the sediments and the water removed during the process may contain elevated chemical concentrations and require further treatment of disposal.

Three general types of dewatering technologies are discussed below:

- Passive dewatering
- Mechanical dewatering
- Active evaporating

4.1.1 Passive Dewatering

The term "passive dewatering" refers to those techniques that rely on natural evaporation and drainage to remove moisture. Drainage may occur by gravity or may be assisted (e.g., using vacuum pumps) and some mechanical movement of the sediments, such as the construction of trenches, may also be employed.

Passive dewatering of dredged material has traditionally been accomplished in confined disposal facilities (CDFs), which rely on primary settling, surface drainage, consolidation, and evaporation. Subsurface drainage and wick (vertical strip) drains have also been demonstrated or used at CDFs to promote dewatering and consolidation. These technologies require significant amounts of land and are most effective if the sediments can be spread out in thin layers or "lifts." Sediments can also be dewatered in temporary holding/rehandling facilities, tanks, and lagoons using the same design principles developed for CDFs.

Most CDFs constructed in the Los Angeles Basin have been accomplished by constructing dikes made of stone and granular material that remain permeable during construction. Lower lifts in the fill are accomplished by bottom-dumping dredge material within the perimeter of the dikes to form the base of the new land area. As material thickness in the fill increases and water depths decrease, the dike is closed off and the remainder of the material is either re-handled over the dikes or hydraulically

pumped into the fill area. Water drains through the permeable sections, and suspended sediments become entrapped by the dike material. As the CDF is filled above the water table, surface water is drained to the discharge point(s), which may include overflow weirs, filter cells, or pump control structures. Progressive trenching is a method that can be employed to aid the drainage of water in CDFs and hasten evaporative drying.

Once the CDF is completed, remaining water can be removed either through evaporation or subsurface drainage. The desiccation of dredged material by evaporative drying results in the formation of a crust at the sediment surface. This method of drying is a two-stage process. The first stage of drying occurs until all free-standing water has been decanted from the dredged material surface. The corresponding void ratio at this point is termed the initial void ratio (eoo) and has been determined to occur at a water content of approximately 2.5 times the Atterberg liquid limit of the material. The second stage of drying occurs until the material reaches a void ratio called the desiccation limit (edl). At this point, evaporation of any additional water from the dredged material will effectively cease. The edl corresponds to a water content of 1.2 times the Atterberg plastic limit (Corps 1987). The thickness of the crust and rate of evaporative drying and consolidation are dependent on local conditions and sediment properties, and can be estimated using the Primary Consolidation and Desiccation of Dredged Fill (PCDDF) module of the Automated Dredging and Disposal Alternatives Management System (ADDAMS) model (Schroeder and Palermo 1990).

To decrease dewatering times, a subsurface drainage system and/or leachate collection can also be implemented. One approach is the placement of perforated pipes under or around the perimeter of a CDF that drain into a series of sumps from which water is withdrawn. The pipes can be placed in a thin layer or trenches of drainage material, typically sand or gravel. The feasibility of subsurface drainage as a sediment dewatering technology may be limited where several layers of fine-grained sediments are to be disposed because they may clog the drainage materials.

Several variations of subsurface drainage systems can be used, including the gravity underdrain, vacuum-assisted underdrain, vacuum-assisted drying beds, and electro-osmosis. The gravity underdrain system provides free drainage at the base of the

dredged material by the gravity-induced downward flow of water. The vacuum-assisted underdrain is the same as the gravity-fed system, but uses an induced partial vacuum in the underdrainage layer. The latter system improves dewatering by 50 percent (Haliburton 1978), but requires considerable maintenance and supervision.

Wick drains or "wicks" are polymeric vertical strips that provide a conduit for upward transport of pore water, which is under pressure from the overlying weight of the material. By placing the vertical strips on 5-ft (1.5-m) centers to depths of 40 ft (12 m), both radial and vertical drainage are promoted. Wick drains can reduce consolidation time by a factor of 10 compared to natural consolidation (Koerner et al. 1986).

4.1.2 Mechanical Dewatering

Mechanical dewatering systems have been extensively used for conditioning municipal and industrial sludges and slurries, as well as mineral processing applications. These systems require the input of energy to squeeze, press, or draw water from the feed material. Generally, mechanical dewatering technologies can increase the solids content up to 70 percent by weight.

The performance of a mechanical dewatering system is measured by a number of parameters, including:

- Chemical conditioning dosage, measured as the mass of conditioner per mass of dry solids
- Solids capture, defined as the dry mass of dewatered solids per dry mass of solids fed into the process
- Solids content of the dewatered material

A high solids capture is desirable, because solids lost from the process (i.e., in the filtrate or centrate) represent a route for contaminant loss. Some particulate loss during mechanical dewatering is inevitable; therefore, the effluent stream will likely require further treatment.

Most mechanical dewatering processes increase the solids content of the feed material to a level comparable to that of the *in situ* sediment deposits (about 50% solids). These

dewatering processes work best with homogeneous waste streams at a constant flow rate. Because hydraulic dredging produces highly variable flow rates and solids concentrations, direct dewatering of hydraulically dredged slurries would be difficult. To accommodate this requirement, temporary storage in a tank, lagoon, or CDF is typically used to equalize flows and concentrations prior to further dewatering by one of the mechanical processes.

While a substantial amount of design and operating guidance on mechanical dewatering systems has been developed for municipal and industrial wastewater applications (EPA 1987a) and mineral processing applications (Weiss 1986), the technique has only been tested with dredged sediments on a limited scale.

- A vacuum filtration unit was tested on sediments from Toledo Harbor, Ohio (Long and Grana 1978). The solids content prior to conditioning with lime ranged from 15 to 23 percent. The post-treatment solids content was consistently above 43 percent.
- A 2.5-m belt filter press was demonstrated on sediment from the Ashtabula River in Ohio at a rate of 23 tons/hour. Solids were increased to 50 to 60 percent by weight, with solids losses of 2 to 5 percent (Rexnord, Inc. 1986).
- Bench-scale pilot study conducted by the Corps' Engineer Research and Development Center (ERDC) using sediment collected from Port Hueneme, California (Appendix A).
- Bench-scale pilot studies using material collected from Newport Bay were conducted using a 4-inch (in) hydrocyclone unit to separate sand from contaminated fine grained material (discussed later in this document and data contained in Appendix B).

4.1.3 Active Evaporating

Active evaporative technologies are different from the evaporative drying techniques used at CDFs in that artificial energy sources are used to heat the sediments, as opposed to solar radiation. Evaporation is the most expensive dewatering technology, but has been effectively used to prepare municipal sludges for incineration or for sale as fertilizer (Dick 1972). Nearly all of the water is removed, resulting in a solids content of

about 90 percent. Technologies applied to sludges that may be applicable to fine-grained sediments include:

- Flash dryers
- Rotary dryers
- Modified multiple hearth furnaces
- Heated auger dryers

The most common conventional evaporation process used for waste recycling is agitated thin-film evaporation (Averett et al. in prep.). This process is capable of handling high-solids content slurries and viscous liquids. It may also be possible to use conventional evaporation equipment commonly found in the chemical-and food-processing industries. These technologies remove water in the form of steam and may also remove volatile contaminants.

Evaporative dewatering technologies have not been demonstrated with sediments on any scale. Most of the design and operating experience and guidance on these technologies are from municipal and industrial wastewater applications (EPA 1987a).

4.2 Physical Separation Technologies

Physical separation technologies are used in sediment remedial alternatives to remove oversized material and debris in order to produce an acceptable feed material for subsequent handling and treatment. These technologies are also used to separate the sediments into two or more fractions based on physical properties or characteristics to reduce the quantity of material requiring treatment or confined disposal.

The following types of physical separation technologies may be applicable to contaminated sediments either prior to dredging or as a pre-treatment step:

- Debris removal
- Screens and classifiers
- Hydrocyclones
- Gravity separation
- Froth flotation
- Magnetic separation

Many of the physical separation technologies discussed below are mineral processing technologies, which have been widely used in the mining industry to recover valuable minerals or metals from ores. Methods such as size classification, magnetic separation, gravity separation, or froth flotation, collectively known as mineral processing, can be applied in some cases to separate contaminated sediment fractions from the bulk sediments.

4.2.1 Large Debris Removal

Because dredge sites typically contain significant quantities of large debris and oversized materials, the first step in remediation includes debris removal. Examples of debris commonly encountered during dredging include: cobbles, bricks, large rocks, tires, cables, bicycles, shopping carts, steel drums, timbers, pilings, and automobiles.

Pockets of bulk materials, such as coal or gravel, may also be encountered near docks and loading areas. The amount of debris is generally greatest in sediments along riverbanks, bridge crossings, and former industrial areas, especially where there is unrestricted public access to the waterway.

Debris can be a significant problem for a dredging operation because it can clog hydraulic cutterheads and cause bucket dredges to be raised without full closure, resulting in increased sediment resuspension. Debris can also complicate the transport of dredged sediments, possibly requiring separate handling. Large debris must be separated and removed prior to any other pretreatment or treatment process.

Debris may be separated during removal (dredging) or as part of material handling activities in between other components. For example, debris might be separated while sediments are being removed from a barge and transferred into truck trailers for transport, or while sediments are being removed from a disposal/storage area and fed into a pretreatment process. The technologies available for debris removal are relatively simple, such as a drag-line, grapple bucket, mechanical removal, and screens (discussed later).

A drag-line is a grappling hook or rake that is dragged along the river bottom with a steel cable from a boat or from a land-based winch. A grapple bucket is a specialized

crane-operated bucket, commonly used for placement of large stones, which can also be used to remove debris from a waterway.

4.2.2 Screens and Classifiers

Once the sediment has been dredged, it may still contain debris particles too large to pass through some of the separation systems (e.g., hydrocyclones). As such, an additional step is needed to screen out these materials. Grizzlies, trommels, vibrating screens, and mechanical classifiers are all widely used in mineral processing an sand/aggregate applications. Screens and classifiers may be the first units in a complex separation process or the only units in a simple process.

4.2.3 Hydrocyclones

A hydrocyclone is a high-throughput, particle-size classifier that can accurately separate sediments into coarse- and fine-grained portions. The typical hydrocyclone (Wills 1988) is a cone-shaped vessel with a cylindrical section containing a tangential feed entry port and axial overflow port on top and an open apex at the bottom (the underflow). A slurry of the particles to be separated enters at high velocity and pressure through the feed port and swirls downward toward the apex. Near the apex the flow reverses into an upward direction and leaves the hydrocyclone through the overflow. Coarse particles settle rapidly toward the walls and exit at the apex through a nozzle. Fine particles are carried with the fluid flow to the axial overflow port.

The particle size at which separation occurs is primarily determined by the diameter of the hydrocyclone. Hydrocyclones from 0.4 to 50 in (0-125 centimeters [cm]) in diameter make separations from 1 to 500 um. The common practice is to employ several identical cyclones from a central manifold to achieve the desired capacity. Most manufacturers provide detailed manuals for selecting and sizing hydrocyclones (Arterburn 1976; Mular and Jull 1980).

The feasibility of using hydrocyclones for processing dredged material was investigated by the Corps, Buffalo District (1969) and Mallory and Nawrocki (1974). A 12-in (30-cm) hydrocyclone was tested using sediments from the Rouge River in Michigan. The physical separation was considered good, but the coarse fraction contained a large

amount of volatile solids, determined to be detritus and light organic matter (Corps, Buffalo District 1969).

Hydrocyclones were the major process unit used in a pilot-scale demonstration of particle size separation technologies conducted at Saginaw, Michigan, by the ARCS Program (Corps, Detroit District 1994) and at a similar demonstration in Toronto, Ontario (Toronto Harbour Commission 1993). At the Saginaw demonstration about 75 percent of the sediments were successfully separated into a sand fraction, reducing the concentrations of PCBs from 1.2 parts per million (ppm) in the feed material to 0.2 ppm in the sand fraction.

Recent bench scale studies conducted by the USACE suggest that sediment from the Los Angeles Region would be a suitable candidate for the use of hydrocyclones as a primary treatment technology (see Appendices B and C).

4.2.4 Gravity Separation

Gravity separators separate particles based on differences in their density. Organic contamination in sediments is often associated with solid organic material or detritus, which have much lower densities than the natural mineral particles of the sediment. Particles with high concentrations of heavy metals would be significantly more dense than the natural mineral particles. A dense media separator was used at the ARCS Program demonstration at Saginaw, Michigan (Corps, Detroit District 1994), and at the demonstration conducted in Toronto, Ontario (Toronto Harbour Commission 1993).

4.2.5 Froth Flotation

Froth flotation is used in the mining industry to process millions of tons of ore per day. Copper, iron, phosphates, coal, and potash are a few of the materials that can be economically concentrated using this process. The process is based on manipulating the surface properties of minerals with reagents so that the mineral of interest has a hydrophobic surface (i.e., lacks affinity for water) such as wax. The minerals to be rejected have, or are made to have, a hydrophilic surface (i.e., a strong affinity for water). When air bubbles are introduced, the hydrophobic minerals attach themselves to the bubbles and are carried to the surface and skimmed away.

When using flotation to remove oily contaminants from sediments, a surfactant is used in a manner that resembles a detergent. Most organic contaminants are naturally hydrophobic, and the objective in using a surfactant is to reduce the hydrophobicity of the oil phase to the point where it will be wetted by the water phase and detach itself from solid surfaces. Surfactants are able to accomplish this because such molecules have a lipophilic (fat-soluble) head, which is absorbed into the oil phase, and a hydrophilic tail, which extends into the water phase. The result of this is that the overall hydrophobicity of the oil phase is decreased. The strength of a surfactant's attachment to an oil phase is approximated by the hydrophile-lipophile balance of the surfactant. Once freed of the solid surface, an oil droplet is assisted to the surface by air bubbles and skimmed away.

4.2.6 Magnetic Separation

Magnetic separations are classified as two types depending on the intensity of the magnetic field employed (or the magnetic susceptibility of the minerals to be separated). Low-intensity separations usually employ permanent magnets, and are most often used for material coarser than about 75 um with high magnetic susceptibility, such as iron ore. High-intensity separations that employ electromagnets are much more versatile and capable of recovering iron-stained or rusted silicate minerals from other purer, nonmagnetic phases.

Wet, high-intensity magnetic separation (WHIMS) appears to be most applicable to sediment remediation, with separations possible down to 5μ, although at very low capacity. The WHIMS unit is essentially a large solenoid. Magnetic material is trapped on magnetized media in the chamber of the device, than flushed free in a rinse cycle when the feeding of sediment and magnetic current are stopped. Thus, the WHIMS is not technically a continuous throughput device, but operates in separate loading and rinsing cycles (Bronkala 1980). Magnetic separation was used during part of the dredging and treatment demonstration conducted with sediments from the Welland River, Ontario (Acres International Ltd. 1993).

5.0 REVIEW OF AVAILABLE TREATMENT TECHNOLOGIES

There are numerous treatment technologies for sediments contaminated with hazardous substances. Many of these technologies have been developed for treating contaminated soils at hazardous waste sites, especially those designated under the Superfund Program. This section provides an introduction to some of the better-established technologies, particularly those that have been demonstrated on contaminated sediments.

New technologies must be subjected to a lengthy process of testing and evaluation before they can be applied in a full-scale remediation project. Many innovative technologies have only been demonstrated in bench-scale (i.e., laboratory) tests, while others have undergone pilot-scale testing. In general, both bench- and pilot-scale testing of any treatment technology must be conducted prior to the application of that technology for full-scale remediation.

Sediment that is contaminated to the extent that it requires decontamination or detoxification in order to meet environmental cleanup goals may be treated by using one or more of a number of physical, chemical, or biological treatment technologies. Treatment technologies reduce contaminant concentrations, contaminant mobility, and/or toxicity of the sediments by one or more of four means:

- Destroying the contaminants or converting the contaminants to less toxic forms
- Separating or extracting the contaminants from the sediment solids
- Reducing the volume of contaminated material by separation of cleaner sediment particles from particles with greater affinity for the contaminants
- Physically and/or chemically stabilizing the contaminants in the dredged material so that the contaminants are fixed to the solids and are resistant to losses by leaching, erosion, volatilization, or other environmental pathways

Destruction technologies described in this section include thermal destruction, chemical treatment, and bioremediation; separation technologies include extraction and thermal desorption. Volume reduction using particle separation techniques discussed in previous section. Immobilization or stabilization techniques include primarily cement-based additions.

5.1 Thermal Destruction Technologies

The processes considered in this section are those that heat the sediment several hundreds or thousands of degrees above ambient temperature. These processes are generally the most effective options for destroying organic contaminants, but are also the most expensive. Included in this category are:

- Incineration
- Pyrolysis
- High-pressure oxidation
- Vitrification

Most of the thermal technologies are highly effective in destroying a wide variety of organic compounds, including PCBs, PAHs, chlorinated dioxins and furans, petroleum hydrocarbons, and pesticides. They do not destroy metals, although some technologies (e.g., vitrification) immobilize metals in a glassy matrix. Volatile metals, particularly mercury, will tend to be released into the flue gas. Additional equipment for emission control may be needed to remove these contaminants.

5.1.1 Incineration

Incineration is by far the most commonly used process for destroying organic compounds in industrial wastes. Incineration basically involves heating the sediments in the presence of oxygen to burn or oxidize organic materials, including organic compounds. A critical component of the overall treatment process is the emission control system for the gases produced by the process. Application of incineration to wet solids such as sediments is relatively uncommon; all traces of moisture must be driven off before the solids will burn. This requires the expenditure of large quantities of energy, which makes the process very expensive. Moreover, incineration tends to be a very controversial issue for communities where such facilities are to be sited because of the air emissions.

As with most processes that destroy organic compounds, incineration does not remove heavy metal contamination. Most incineration processes increase the leachability of metals through the process of oxidation (exceptions include the slagging or vitrifying technologies, which produce a nonleachable, basalt-like residue). This increased

leachability of metals would be advantageous only if the resulting ash were to be treated using a metals extraction process; otherwise, it is a distinct disadvantage. The leachability of metals is generally measured using the toxicity characteristic leaching procedure (TCLP) test. Incinerator ash that "fails" this test must be disposed of as a hazardous waste in accordance with the Resource Conservation & Recovery Act (RCRA).

5.1.2 Pyrolysis

In contrast to incineration, pyrolysis involves the heating of solids in the absence of oxygen. A pyrolysis system consists of a primary combustion chamber, a secondary combustion chamber, and pollution control devices. High temperatures, ranging from 540 to 760° C, cause large, complex molecules to decompose into simpler ones. The resulting gaseous products can then be collected (e.g., on a carbon bed) or destroyed in an afterburner at 1,200° C.

The Thermal Gas Phase Reduction Process is a specialized process in which a reducing agent (hydrogen gas) is introduced to remove chlorine atoms from PCBs or dioxins. In Hamilton, Ontario, a pilot-scale reactor was used to process PAH- and PCB-contaminated harbor sediments in July 1991. This process produced high destruction efficiencies for PAHs (99%) and PCBs (99%) in dilute sediment slurries (5-10% solids) (ELI Eco Logic International 1992). In late 1992, this technology was tested under the Superfund Innovative Technology Evaluation (SITE) Program with PCB-contaminated soil from a landfill in Bay City, Michigan (EPA 1994).

5.1.3 High-Pressure Oxidation

This category includes two related technologies: wet air oxidation and supercritical water oxidation. Both processes use the combination of high temperature and pressure to break down organic compounds. Wet air oxidation is a commercially proven technology, although its use has generally been limited to conditioning of municipal wastewater sludges. This technology can degrade hydrocarbons (including PAHs), some pesticides, phenolic compounds, cyanides, and other organic compounds (EPA 1987b). A bench-scale test using sediments from Indiana Harbor showed greater than 99 percent destruction of PAHs (EPA in prep.). However, destruction of halogenated

organic compounds (e.g., PCBs) with this process is poor. In bench-scale testing of the process conducted under the ARCS Program, using sediments from Indiana Harbor, it was found that only 35 percent of influent PCBs were destroyed (EPA in prep.). It may be possible to improve oxidation through the use of catalysts (Averett et al. in prep.).

The supercritical water oxidation process is a relatively new technology that has received limited bench- and pilot-scale testing. Available data have shown essentially complete destruction of PCBs and other stable compounds. Vendors of this process include Modar, Inc. (Natick, Massachusetts) and VerTech Treatment Systems (Air Products and Chemicals, Allentown, Pennsylvania). Modar uses high-pressure pumps and an above-ground reactor. In contrast, VerTech uses a well between 2,500 to 3,000 m deep to achieve the necessary pressures.

5.1.4 Vitrification

Vitrification is an emerging technology that uses electricity to heat and destroy organic compounds and immobilize inert contaminants. A typical unit consists of a reaction chamber divided into two sections: the upper section introduces the feed material containing gases and pyrolysis products, while the lower section contains a two-layer molten zone for the metal and siliceous components of the waste. Wastes are vitrified by passing high electrical currents through the material. Electrodes are inserted into the waste solids, and graphite is applied to the surface to enhance its electrical conductivity. A large current is applied, resulting in rapid heating of the solids and causing the siliceous components of the material to melt. The end product is a solid, glass-like material that is very resistant to leaching. Temperatures of about 1,600° C are typically achieved.

Vitrification units demonstrated in pilot- scale and full-scale tests have solidified 300,000 kg/melt. Vitrifix N.A. (Alexandria, Virginia) is developing a full-scale unit for asbestos waste. Geotech Development Corp. and Penberthy Electromelt also offer vitrification systems.

In situ vitrification is a patented thermal destruction technology developed by the Battelle Memorial Institute's Pacific Northwest Laboratory. Although it was designed to

treat contaminated soils in place, it could presumably be adapted to treat dredged sediments. This technology is available commercially from Geosafe Corp., (Kirkland, Washington).

5.2 Thermal Desorption Technologies

Thermal desorption physically separates volatile and semivolatile compounds from sediments by heating the sediment to temperatures ranging from 90 to 540° C. Water, organic compounds, and some volatile metals are vaporized by the heating process and are subsequently condensed and collected as liquid, captured on activated carbon, and/or destroyed in an afterburner. An inert atmosphere is usually maintained in the heating step to minimize oxidation of organic compounds and to avoid the formation of compounds such as dioxins and furans. The temperature of the soil in the desorption unit and retention time are the primary variables affecting performance of the process. Heating may be accomplished by indirectly fired rotary kilns, heated screw conveyors, a series of externally heated distillation chambers, or fluidized beds (EPA 1991a).

5.2.1 High-Temperature Thermal Processor

The high-temperature thermal processor (Remediation Technologies, Inc. [ReTec]) uses a Holoflite™ dryer, which is a heated screw conveyor, to heat the sediment and drive off water vapors, organic compounds, and other volatile compounds. The screws for the dryer are heated by a hot molten salt that circulates through the stems and blades of the augers, as well as through the trough that houses the augers. The molten salt is a mixture of salts, primarily potassium nitrate. Maximum soil temperatures of 450° C are attainable (EPA 1992). The motion of the screws mixes the sediment to improve heat transfer and conveys the sediment through the dryer. Off-gases are controlled by cyclones, condensers, and activated carbon. This technology was evaluated in ARCS Program bench- and pilot-scale demonstrations. Removal efficiencies from 42 to 96 percent were achieved for PAHs in Buffalo River sediments (Corps, Buffalo District 1993). Greater than 89 percent of the PCBs in Ashtabula River sediments were removed by the ReTec pilot unit (Corps, Buffalo District in prep.).

5.2.2 Low-Temperature Thermal Treatment

The low-temperature thermal treatment system (Roy F. Weston, Inc. [Weston]) also uses a Holoflite™ dryer, similar to the ReTec process. However, Weston's heating fluid is a thermal oil heated by a separate, gas-fired unit. Maximum temperature for the heating fluid is a limiting factor for this process. The typical oil medium has a maximum operating temperature of 350° C, which allows soils to be heated to approximately 290° C (Parker and Sisk 1991); however, higher temperatures would likely be required to effectively remove PCBs from sediments. Vapors from the contaminated material are passed through a particulate filter, scrubbers or condensers, and carbon adsorption columns, and may require additional post-treatment. In past demonstrations, Weston has attached an afterburner to the gas stream at temperatures as high as 1,200° C to destroy the organic compounds. Removal efficiencies greater than 99 percent have been reported for volatile organic compounds; removal efficiencies of about 90 percent have been reported for PAHs (EPA 1991a). Bench-, pilot-, and full-scale units are available. The capacity of the full-scale system is 6.8 tons/hour (Parker and Sisk 1991).

5.2.3 X*TRAX System

The X*TRAX thermal desorption system (Chemical Waste Management) uses an externally fired rotary kiln to heat soil to temperatures ranging from 90 to 480° C. Water and organic compounds volatilized by the process are transported by a nitrogen carrier gas to the gas treatment system. First, a high-energy scrubber removes dust particles and 10 to 30 percent of the organic compounds. The gases are then cooled to condense most of the remaining vapors. About 90 to 95 percent of the cleaned gas is reheated and recycled to the kiln. The remaining 5 to 10 percent is passed through a particulate filter and activated carbon and is then released to the atmosphere (EPA 1992). Pretreatment requirements include screening or grinding to reduce the particle size to less than 5 cm. Post-treatment includes treatment or disposal of the condensates and spent carbon. Removal efficiencies greater than 99 percent have been demonstrated for volatile organic compounds, pesticides, and PCBs. EPA (1992) reported that mercury, one of the more volatile metals, had been reduced from a soil concentration of 5,100 ppm to 1.3 ppm using this process. The X*TRAX system is available in bench-, pilot-, and full-scale units, although this particular thermal desorption process has not been demonstrated with contaminated sediments.

5.2.4 Desorption and Vaporization Extraction System

The Desorption and Vaporization Extraction System (DAVES®) process (Recycling Sciences International, Inc.) uses a fluidized bed maintained at a temperature of about 160° C and a concurrent flow of 540 to 760° C air from a gas-fired heater. As the contaminated material is fed to the dryer, water and contaminants are removed from the solids by contact with the hot air. Gases from the dryer are treated using cyclone separators and bag houses for removal of particulates and using a venturi scrubber, counter-current washer, and carbon adsorption system for removal of water and organic compounds. Onsite treatment of liquid residues is available as a part of the process. The mobile DAVES[reg.] unit has a capacity of 10 to 66 tonnes/hour. It is applicable to most volatile and semivolatile organic compounds and PCBs (EPA 1992). The process was tested with sediments from Waukegan Harbor, Illinois, with reported reductions in PCB concentrations from 250 ppm to more than 2 ppm (EPA 1991a).

5.2.5 Low-Temperature Thermal Aeration System

The low-temperature thermal aeration system (Canonie Environmental Services Corp.) uses a direct-fired rotary dryer that can heat soil to temperatures of 430° C. The gas stream from the dryer is treated for particulate removal in cyclones and/or baghouses. Organic compounds may be destroyed in an afterburner or scrubbed and adsorbed onto activated carbon. The full-scale unit can process 11 to 15 cubic meters (m^3) per hour. Effective separation of volatile organic compounds and PAHs from contaminated soils has been demonstrated (EPA 1992).

5.2.6 Anaerobic Thermal Processor Systems

The Anaerobic Thermal Processor® (ATP®) system (SoilTech ATP Systems, Inc.) also known as the AOSTRA-Taciuk process consists of four processing zones. Contaminated material is fed into a preheat zone maintained at temperatures of 200 to 340° C where steam and light organic compounds are separated from the solids. The solids then move into a 480 to 620° C retort zone, which vaporizes the heavier organic compounds and thermally cracks hydrocarbons, forming coke and low molecular weight gases. Coked solids pass to a combustion zone (650-790° C) where they are combusted. The final zone is a cooling zone for the flue gases. The organic vapors are collected for particulate

removal and for recovery or adsorption on activated carbon (EPA 1992). This system was used for the cleanup of PCB-contaminated sediments and soil from the Outboard Marine Corp. Superfund site in Waukegan Harbor, Illinois. A full-scale unit, rated at 23 tons per hour was used and produced PCB removals of 99.98 percent (Hutton and Shanks 1992). Pretreatment is necessary to reduce the feed materials to less than 5 cm in diameter.

5.3 Immobilization Technologies

Immobilization alters the physical and/or chemical characteristics of the sediment to reduce the potential for contaminants to be released from the sediment when placed in a disposal site. The principal contaminant loss pathway reduced by immobilization is contaminant leaching from the disposal site to groundwater and/or surface water; however, contaminant losses at the sediment surface may also be reduced by immobilization processes. Solidification/stabilization is a commonly used term that covers the immobilization technologies discussed in this section.

Physical stabilization processes improve the engineering properties of the sediments, such as compressive strength, bearing capacity, resistance to wear and erosion, and permeability. Alteration of the physical character of the sediments to form a solid material (e.g., a cement matrix) reduces the accessibility of the contaminants to water and entraps or microencapsulates the contaminated solids within a stable matrix. Because most of the contaminants in dredged material are tightly bound to the particulate fraction, physical stabilization is an important immobilization mechanism (Myers and Zappi 1989). Solidification processes may also reduce contaminant losses by binding the free water in dredged material (a large contributor to the initial leachate volume from dredged material in a disposal site) into a hydrated solid.

Chemical stabilization is the alteration of the chemical form of the contaminants to make them resistant to aqueous leaching. Solidification/stabilization processes are formulated to minimize the solubility of metals by controlling pH and alkalinity. Anions, which are more difficult to bind in insoluble compounds, may be immobilized by entrapment or micro-encapsulation. Chemical stabilization of organic compounds may be possible, but the mechanisms involved are not well understood (Myers and Zappi 1989).

Binders used to immobilize contaminants in sediment or soils include cements, pozzolans, and thermoplastics (Cullinane et al. 1986; Portland Cement Association 1991). In many commercially available processes, proprietary reagents are added during the basic solidification process to improve the effectiveness of the overall process or to target specific contaminants. The effectiveness of an immobilization process for a particular sediment is difficult to predict, and can only be evaluated using laboratory leaching tests.

Immobilization technologies have been evaluated for treatment of contaminated sediments from both freshwater and saltwater environments. These investigations have shown that physical stabilization of sediments is easily achieved using a variety of binders, including proprietary processes. Results of leaching tests on the solidified products have been mixed; the mobility of some contaminants has been reduced while the mobility of other contaminants has been increased (Myers and Zappi 1992). The ARCS Program evaluated solidification/stabilization of Buffalo River sediments using three generic binders: Portland cement, lime-fly ash, and kiln dust. Leaching of lead, nickel, and zinc was reduced by the cement process, but leachate concentrations of copper were significantly higher for the solidified sediments compared to leachates from the untreated sediments (Fleming et al. 1991). Immobilization of organic compounds in sediments is generally thought to be less effective than for heavy metals; however, Myers and Zappi (1989) demonstrated reductions in PCB leachability in New Bedford Harbor sediments using a solidification process. The results of these studies demonstrate the importance of laboratory evaluations of appropriate protocols for specific sediments, binders, and contaminants prior to selecting an immobilization process for remediation.

5.4 Extraction Technologies

Solvent extraction processes are used to separate contaminated sediments into three fractions: particulate solids, water, and concentrated organic compounds. Contaminants are dissolved or physically separated from the particulate solids using a solvent that is mixed thoroughly with the contaminated sediment. Most extraction processes do not destroy or detoxify contaminants, but they reduce the volume of contaminated material that must be subsequently treated or disposed. Volume reductions of 20-fold or more are possible, depending on the initial concentration of extractable contaminants in the feed material and

the efficiency of separation of the concentrated organic (oil) stream and the water evaporated by the process. Another advantage of the volume reduction is that most of the contaminants are transferred from the solid phase to a liquid phase, which is more easily managed in subsequent treatment or disposal processes. The primary application of solvent extraction is to remove organic contaminants such as PCBs, volatile organic compounds, halogenated solvents, and petroleum hydrocarbons. Extraction processes may also be used to extract metals and inorganic compounds, but these applications, which usually involve acid extraction, are potentially more costly than those used for removing organic contaminants. Solvents used for extraction processes can represent a significant cost; therefore, a key component of an extraction process is to separate the solvents from the organic compounds and reuse them in subsequent extraction steps. Usually several extraction cycles are required to reduce contaminant concentrations in the sediments to target levels.

The principal pre-treatment operation required for solvent extraction is screening or particle-size reduction to remove or reduce oversized debris (see previous section). The maximum particle size depends on the scale and configuration of the extraction process, but the recommended maximum size is 0.5 cm (EPA 1988). A wide range of solids contents are acceptable for sediment treated by extraction processes. Some processes require that the feed material be pumped, which would require that water be added to the sediment to decrease the solids content.

Extraction processes can operate in a batch mode or continuous mode. Sediments and solvents are mixed together in an extractor. Extracted organic compounds are removed from the extractor using the solvent and are transferred to a separator where the solvent and organic compounds are separated from the water and the contaminants are separated from the solvent by changes in temperature or pressure, or differences in density. Concentrated organic contaminants are usually associated with an oil phase, which is removed from the separator for post-treatment. The solvent is recycled to the extractor to remove additional contaminants. This cycle is repeated several times before the treated solids are finally removed from the extractor.

When treated solids are removed from the extractor, traces of solvent will be present. The solvents selected for these processes generally vaporize or are biodegradable. Some processes include an additional separation step designed to further remove, by distillation or other means, most of the solvent from the product solids.

A number of process options for extraction are commercially available; however, most of them are proprietary. Most of the processes discussed in this section have been used in the EPA SITE Program, and two of them have been demonstrated with contaminated sediments.

5.4.1 Basic Extractive Sludge Treatment Process

The B.E.S.T.® process (Resources Conservation Co.) uses a combination of tertiary amines, usually triethylamine (TEA), as the solvent. The first extraction is conducted at temperatures below 4° C where TEA is soluble with water and at a pH greater than 10. Hydrocarbons and water in the sediment simultaneously solubilize with the TEA, creating a homogenous mixture (EPA 1992). In the next step of the process, solids are separated from the liquid mixture by settling. The remaining solvent is removed from the solids fraction by indirect steam heating. Water is separated from the water-organic compound-TEA mixture by heating the solution to temperatures above the miscibility point (about 54° C). Organic compounds and TEA are separated by distillation, and the TEA is recycled to the extraction step. This process was demonstrated at the Grand Calumet River as a combination ARCS and SITE program demonstration in 1992 (Corps, Chicago District 1994), and bench-scale tests were performed for Buffalo River, Saginaw River, and Grand Calumet River sediments (EPA in prep).

5.4.2 CF Systems Solvent Extraction

The solvent extraction process offered by CF Systems uses compressed propane at supercritical conditions as the solvent. Sediment is screened to remove oversized material and debris and can then be pumped through the system as a slurry in a continuous mode. The solvent is mixed with the sediment under normal temperatures and high pressures. Organic compounds are extracted from the sediment and water into the solvent. The solvent-organic compound stream is removed from the extractor, and the propane is separated from the organic compounds by reducing the pressure and

allowing the propane gas to vaporize. After recompression, the gas is recycled to the extraction step. Three or more extraction stages are usually required to achieve contaminant removal efficiencies of 90 to 98 percent (EPA 1992). This process was demonstrated using contaminated sediments from the New Bedford Harbor Superfund site during a SITE Program demonstration (EPA 1990a,b).

5.4.3 Carver-Greenfield Process

The Carver-Greenfield process (Dehydro-Tech Corp.) is a physical process that can be used to separate oil-soluble organic compounds from contaminated sediments by dissolving the contaminants in a food-grade oil with a boiling point of approximately 204° C. Five to 10 kilograms (kg) of carrier oil per kilogram of solids is combined in a mixing tank where the extraction takes place. Three or more extraction stages may be necessary. From the mixing tanks, the slurry is transferred to a high-efficiency evaporator where the water is removed. The oil is separated from the dewatered solids initially by centrifugation and then by a hydroextraction process that uses hot nitrogen gas to strip the remaining oil from the solids. After separating the contaminants from the oil by distillation, the oil is recycled to the extraction step and the concentrated contaminants are further treated or disposed. Low solids content is not a problem for this process, but particle size must be reduced to less than 0.5 cm in diameter. Demonstration projects have been conducted on drilling mud wastes, a relatively fine-grain material. The requirements of this process for fine particle sizes and wet feed material favor applications to contaminated sediments.

5.4.4 Soil Washing

The term soil washing is generally used to describe extraction processes that use a water-based fluid as the solvent (EPA 1990c). Many soil washing processes rely on particle-size separation to reduce the volume of contaminated material. Other water-based techniques involve dissolving or suspending the contaminants in the water-based fluid. Because most sediment contaminants are tightly bound to particulate matter, water alone is not a suitable extraction fluid. Surfactants, acids, or chelating agents may be used with water to effect separation of some contaminants. The particle size and type of contaminant are important factors in the effectiveness of soil washing as an extraction process. Soil washing for clays and silts is only marginally applicable. The U.S. Bureau

of Mines evaluated acid extraction for heavy metals in Great Lakes sediments from three AOCs under the ARCS Program and found minor reductions in sediment metal concentrations (Allen in prep.). The use of surfactants may be successful for removing organic compounds from sandy sediments.

In the Los Angeles Region, soil washing has been proposed as an option for removing chlorides from mildly contaminated marine sediments prior to disposal in Class III upland landfills. A laboratory bench test was sponsored by the USACE in 2001 to investigate the feasibility and costs associated with soil washing using representative dredge material from the LARE. Two methods of washing were investigated: active and passive techniques, both of which proved feasible for reducing chloride leach potential in the sediments. However, while technically feasible, successful washing required very large amounts of water and throughput was quite low. Full-scale operation of the washing systems tested during the bench scale studies was predicted to cost between $34 and $82 per m^3.

5.5 Chemical Treatment Technologies

For the purposes of this summary, the definition of chemical treatment is restricted to processes in which chemical reagents are added to a sediment matrix for the purpose of contaminant destruction. Certain immobilization, extraction, and thermal procedures also involve chemical inputs, but they are typically added to alter the phase of the contaminant, thus facilitating removal or binding the contaminant in the sediment. A clear distinction between categories cannot always be made, and some overlap may occur between this and other chapters of this document.

Chemical treatment technologies used during the removal component involve mixing chemical additives with sediments or with sediment slurry. This mixing is typically done in batch operations in some type of process vessel. Chemical treatments may destroy contaminants completely, may alter the form of the contaminants so that they are amenable to other treatments, or may be used to optimize process conditions for other treatment processes. Treated sediments may then be permanently disposed of or put to some beneficial use, depending on the nature and extent of residuals, including reagents and contaminants.

For the ARCS Program, Averett et al. (1990 and in prep.) reviewed eight general categories of chemical treatment for suitability to dredged material. Chelation, dechlorination, and oxidation of organic compounds were considered most promising. The specific processes under these three categories that have been demonstrated to be useful or that are sufficiently developed for consideration are further described in this section. Other promising, emerging technologies are also discussed.

5.5.1 Chelation Processes

Chelation is the process of stable complex formation (a chelate) between a metal cation and a ligand (chelating agent). This process could also be considered an immobilization process, and some extraction processes also use chelating agents. Binding of the metal cation in a stable complex renders it unavailable for further reaction with other reagents in chemical or biological systems. The stability of a complex generally increases as the number of bonds increases between the ligand and the metal cation (Snoeyink and Jenkins 1980). A ligand forming a single bond is known as monodentate, a ligand forming two bonds is known as bidentate, while a ligand forming more than two bonds is known as polydentate. Ethylenediaminetetraacetic acid (EDTA) is a well-known example of a polydentate ligand (Brady and Humiston 1986). PH is one of the most important parameters that affect the treatment process. Efficiency varies with the chelating agent and dosage used (Averett et al. in prep.).

The ENSOL and LANDTREAT process uses a polysilicate as an adsorptive agent (LANDTREAT) to solidify metal hydroxide silicate complexes produced by the ENSOL, which contains sodium silicate and a proprietary chelating agent. The process is carried out in an enclosed, continuous-reaction chamber (Wastewater Technology Centre 1993). The process is available at the full-scale commercial level.

5.5.2 Dechlorination Processes

Dechlorination processes remove chlorine molecules from contaminants such as PCBs, dioxins, and pentachlorophenol through the addition of a chemical reagent under alkaline conditions at increased temperatures (EPA 1990d,e). The resulting products are much less toxic than the original contaminants. Typically, chemical reagents are mixed

with the contaminated sediments and heated to temperatures of 110 to 340° C for several hours, producing the chemical reaction and releasing steam and volatile organic vapors. The vapors are removed from the processor, condensed, and further treated using activated carbon. The treated residue is rinsed to remove reactor by-products and reagent and is then dewatered prior to disposal. Adjustment of the pH of the residue may also be required. The wastewater produced may require further treatment. Processing feed streams with lower solids contents, such as sediments, require greater amounts of reagent, increase energy requirements, and produce larger volumes of wastewater for disposal, all distinct disadvantages of this process for contaminated sediments.

5.5.3 Oxidation Processes

Chemical oxidation involves the use of chemical additives to transform, degrade, or immobilize organic wastes. Oxidizing agents most commonly used (singly or in combination with UV light) are ozone, hydrogen peroxide, peroxone (combination of ozone and hydrogen peroxide), potassium permanganate, calcium nitrate, and oxygen. The use of ozone, peroxide, and peroxone has come to be known as advanced oxidation processes. Strictly defined, oxidation is the addition of oxygen to a compound (creation of carbon to oxygen bonds) or the loss of electrons from a compound (increase in the positive valence). Oxidation is used to transform or break down compounds into less toxic, mobile, or biologically available forms. Theoretically, compounds can be decomposed completely to carbon dioxide and water. Adequate process control of pH, temperature, and contact time is important to prevent the formation of hazardous intermediate compounds, such as trihalomethanes, epoxides, and nitrosamines, from incomplete oxidation.

Oxidation is commonly used to treat amines, phenols, chlorophenols, cyanides, halogenated aliphatic compounds, mercaptans, and certain pesticides in liquid waste streams (EPA 1991b). Oxidation is nonselective, and all chemically oxidizable material (including detritus and other naturally occurring organic material) will compete for the oxidizing agent. It is not applicable to highly halogenated organic compounds (Averett et al. in prep.). Certain contaminants, such as PCBs and dioxins, that will not react with ozone alone require the use of UV light with the oxidizing agent. This limits the

effectiveness of the process with slurries because the UV light cannot penetrate the mixture.

The LANDTREAT and PETROXY process uses a synthetic polysilicate (LANDTREAT) for adsorption of organic compounds to facilitate the oxidation by the PETROXY reagent, which includes a combination of hydrogen peroxide and other additives. A secondary reaction is the conversion of heavy metal cations to metal silicates on active sites of the LANDTREAT (Wastewater Technology Centre 1993).

5.6 Bioremediation Technologies

Bioremediation, sometimes called biorestoration, is a managed or spontaneous process in which microbiological processes are used to degrade or transform contaminants to less toxic or nontoxic forms, thereby remedying or eliminating environmental contamination. Microorganisms depend on nutrients and carbon to provide the energy needed for their growth and survival. Degradation of natural substances in soils and sediments provides the necessary food for the development of microbial populations in these media. Bioremediation technologies harness these natural processes by promoting the enzymatic production and microbial growth necessary to convert the target contaminants to nontoxic end products.

Biological treatment has been used for decades to treat domestic and industrial wastewaters, and in recent years has been demonstrated as a technology for destroying some organic compounds in soils, sediment, and sludges. Bench-scale testing of bioremediation was conducted for the ARCS Program with sediments from Great Lakes sites (Jones et al. in prep.). The chemical and physical structure of organic compounds affects the ability of microorganisms to use them as a food source. Bioremediation of organic compounds in sediment is a complex process, and its application to specific compounds is based on an understanding of the microbiology, biochemistry, genetics, metabolic processes, structure, and function of natural microbial communities. Microbiology must be combined with engineering to develop effective bioremediation processes. The ARCS Program conducted a workshop on bioremediation of contaminated sediments to document laboratory research and field applications of this technology. The proceedings of this workshop (Jafvert and

Rogers 1991) provide an excellent discussion of the state of the art with an emphasis on the microbial and chemical processes involved.

Many of the more persistent contaminants in the environment, such as PCBs and PAHs, are resistant to microbial degradation because of (1) the compound's toxicity to the organisms; (2) preferential feeding of microorganisms on other substrates; (3) the microorganism's lack of genetic capability to use the compound as a source of carbon and energy; or (4) unfavorable environmental conditions in the sediment for propagating the appropriate strain of microorganisms. Alteration of the environmental conditions can often stimulate development of appropriate microbial populations that can degrade the organic compounds. Such changes may include adjusting the concentration of the compound, pH, oxygen concentration, or temperature, or adding nutrients or microbes that have been acclimated to the compound.

Biodegradation of refractory organic compounds is not uncommon in nature, but can take many years. The key to improving the usefulness of bioremediation for cleaning up contaminated sediment sites is to determine how to accelerate the rate of biodegradation to detoxify the target compounds in a finite time period (i.e., weeks or months rather than years).

Ideally, biodegradation of organic compounds in sediments would be accelerated *in situ*. However, because of the complexity of the sediment-water ecosystem; the difficulties in controlling physical and chemical, as well as biological, processes in the sediment, and the need to adjust environmental conditions for various stages of the biodegradation process; limited effectiveness has been demonstrated for *in situ* bioremediation. Much research is underway in the area of *in situ* treatment, and future efforts will likely overcome some of these difficulties for certain sites and specific contaminants. However, the best current prospects for successful bioremediation of xenobiotic compounds are engineered treatment systems in which environmental conditions can be carefully controlled and adjusted as the biotransformation processes progress with time.

Biodegradation is accomplished either aerobically or anaerobically. Aerobic respiration is energy-yielding microbial metabolism in which the terminal electron acceptor for substrate

oxidation is molecular oxygen, and carbon dioxide and water are the end products. Free oxygen must be present for aerobic reactions to occur. Anaerobic respiration is energy-yielding metabolism in which the terminal electron acceptor is a compound other than molecular oxygen, such as sulfate, nitrate, or carbon dioxide, and methane, sulfides, and organic acids are the typical end products. Aerobic processes generally proceed more quickly and provide a more complete degradation of the organic compounds than anaerobic processes. However, some compounds can only be changed by anaerobic organisms. For example, dechlorination of the more highly chlorinated PCBs by anaerobic processes has been demonstrated in laboratory and field studies. On the other hand, the less chlorinated PCBs are susceptible to degradation by aerobic organisms. Sequential anaerobic treatment followed by aerobic processes appears to offer an effective destruction technology for PCBs (Quensen et al. 1991).

This section addresses surface bioremediation techniques in which sediments are removed from the waterway and treated in bioslurry reactors, contained land treatment systems, compost piles, or contained treatment facilities (CTFs). Pretreatment requirements for these processes include removal of oversized particles for bioslurry reactors and possible adjustment of solids content for all of the processes. One of the advantages of bioremediation technologies is that the physical and basic chemical characteristics of the treated sediments are very similar to the feed material, allowing a wide range of choices for beneficial use of the treated sediment.

5.6.1 Bioslurry Processes

Bioslurry reactors are a relatively new technology that has been applied to contaminated solids mostly in the last 5 to 10 years. There have been a number of pilot-scale applications, but few full-scale installations. Bioslurry reactors are best suited to treating fine-grained materials that are easily maintained in suspension. In a bioslurry system, a sediment-water slurry is continuously mixed with appropriate nutrients under controlled conditions in an open or closed impoundment or tank. Aerobic treatment, which involves adding air or another oxygen source, is the most common mode of operation. However, conditions suitable for anaerobic microorganisms can also be maintained in the reactor where this oxic state is an essential step in the biodegradation process. Sequential anaerobic/aerobic treatments are also possible in these systems.

Contaminants with potential for volatilization during the mixing and/or aeration process can be controlled using emission control equipment.

Systems for treating soils or sediments are often operated in batch mode, because typical retention times are on the order of 2 to 12 weeks. Once the treatment period is completed, the solids may be separated from the water and disposed of separately. The slurry solids concentrations range from 15 to 40 percent; therefore, adjustments in solids contents for slurry treatment of sediments may be minor.

The degradation of PCBs using the bioslurry reactor technology was investigated by General Electric Co. (Abramowicz et al. 1992). Researchers concluded that between 35 and 55 percent of the initial PCBs were degraded over a 10-week test period in reactors amended with biphenyl. Remediation of contaminated sediments from Toronto Harbor, Ontario, was tested in pilot-scale reactors in 1992 (Toronto Harbour Commission 1993). Although complicated by analytical interferences, the results showed that oil and grease were completely degraded in several weeks' time, with a partial degradation of PAHs.

5.6.2 Contained Land Treatment Systems

Contained land treatment systems, which have been demonstrated in Europe, require mixing of appropriate amendments with the sediments, followed by placement of the material in an enclosure such as a building or tank and on a pad or prepared surface (EPA 1991c). The enclosure protects the material from precipitation, moderates temperature changes, allows moisture control, and provides the capability to control volatile organic compound emissions.

Leachate from the sediment is collected by underdrains for further treatment as necessary. The layer of sediment treated for each lift is generally no deeper than 6 to 8 in (15-20 cm). Regular cultivation of the sediments and the addition of nutrients, and in some cases bacterial inocula, are typically required to optimize environmental conditions for rapid bioremediation. The excess water associated with the sediment as it is placed in the treatment bed may create operational problems for startup and will likely require that the system be designed for lateral confinement of the material.

5.6.3 Composting

Composting is a biological treatment process used primarily for contaminated solid materials. Bulking agents (e.g., wood chips, bark, sawdust, straw) are added to the solid material to absorb moisture, increase porosity, and provide a source of degradable carbon. Water, oxygen, and nutrients are needed to facilitate bacterial growth. Sediment solids contents will likely be sufficient for composting operations, and in some cases dewatering of the sediment may be necessary as a pretreatment step. Available composting techniques include aerated static pile, windrowing, and closed reactor designs (EPA 1991c).

Volatilization of contaminants may be a concern during composting and may require controls such as enclosures or pulling air through the compost pile rather than pushing air into and out of the pile. Use of composting to treat sediments should increase permeability of the sediment, allowing for more effective transfer of oxygen or nutrients to the microorganisms. A pilot-scale demonstration of composting is being conducted for Environment Canada's Cleanup Fund at a site in Burlington, Ontario. Approximately 150 tonnes of PAH-contaminated sediments from Hamilton Harbor were placed in a temporary shelter and tilled periodically with additions of a proprietary organic amendment (Seech et al. 1993). The treatment was executed over an 11-month period. Sediments that were tilled with the amendment showed reductions of PAHs of over 90 percent, while controls with tillage and no amendment showed reductions of 51 percent. Controls with no tillage or amendment showed reductions of 73 percent (Grace Dearborn Inc. in prep.).

5.6.4 Contained Treatment Facility

CDFs routinely used for dredged material may be used as CTFs for bioremediation of sediments. These facilities often provide long-term to permanent storage. The size of the CDF and the depth (1.5-5 m) of sediments may limit the capability to control conditions compared to other bioremediation systems. These limitations are similar to those for *in situ* bioremediation processes for contaminated soil sites, except that engineering the biotreatment system for upland CDFs is not as difficult compared to *in situ* systems.

A pilot evaluation of a contained treatment facility for PCB-contaminated sediments is underway at the Sheboygan River AOC. Rather than a diked disposal facility, the contained treatment facility is constructed with sheet pile walls and includes an underdrain system that could be used for leachate control and to add nutrients, oxygen, and other additives. The ARCS Program has contributed to the scientific assessment of the operation; a report documenting these investigations will be published at a later date; however, these experiments were inconclusive as of early 1994. Bioremediation in a CDF would offer an economical process for reducing sediment organic contamination, but more research is needed to develop techniques for implementation.

6.0 EVALUATION OF TREATMENT ALTERNATIVES

Section 3 provides a review of dredge material characteristics for the contaminant-prone areas that the USACE is responsible for maintaining. Typical USACE dredge material from these areas is comprised mostly of sand, has high trash/debris content, and usually has less than 20 percent fine-grained silts and clays. Most of the areas are depositional and located at the base of rivers or flood control channels. Contaminants of concern typically include metals, PAHs, pesticides, and PCBs with concentrations that would be considered mildly impacted. Bulk sediment concentrations generally exceed lower range threshold screening values (e.g., ER-Ls), but are typically below higher threshold screening values (e.g., ER-Ms). More importantly, portions or all of the material from these locations frequently exhibit bulk sediment toxicity making them unsuitable for unconfined open ocean disposal.

One of the goals for a regional treatment facility is to produce a reusable by-product to help off-set treatment costs, reduce the amount of material for upland or contained disposal (e.g., CAD or CDF), and support the CSTF's goal for promoting beneficial reuse in the region. Sediments typically dredged by the USACE contain 80 percent or more sand content. Since regional beach nourishment projects are in high demand, it seems practicable to design a facility to recover clean course sands that can be used for beach nourishment. Doing so would leave a concentrated, fine-grained sediment slurry to manage or for further treatment to produce a secondary beneficial by-product.

With these goals in mind, Sections 4 and 5 reviewed available pre-treatment and treatment technologies for potential use within an upland regional sediment treatment facility for Southern California contaminated sediments. The remainder of this section evaluates each of these options for further consideration. Treatment technologies that have the potential for use as economically viable and environmentally protective alternatives are then carried forward into Section 7, where treatment facility design criteria are discussed.

6.1 Pre-Treatment Technologies

The following pre-treatment technologies were identified and discussed in Section 4:

- Dewatering
  - Passive
  - Mechanical

- Active evaporating

- Physical Separation
  - Debris removal
  - Screens and classifiers
  - Hydrocyclones
  - Gravity separation
  - Froth floatation
  - Magnetic separation

Recent studies conducted by the USACE (see Appendix B and C) suggest the use of one or more modified pre-treatment technologies may actually be sufficient for primary treatment of regional contaminated sediments. The use of hydrocyclones combined with mild washing has been shown to effectively isolate courser sand particles and reduce contaminant concentrations to produce a material likely suitable for nearshore placement or beach nourishment. As such, one or more pre-treatment technologies would be beneficial for use in designing a regional treatment facility.

Depending on the treatment technique selected, de-watering may or may not be needed. However, given the high trash/debris content at the two primary USACE contaminated sediment dredge sites (LARE and Marina del Rey), an initial debris removal step would be beneficial prior to processing. This could be accomplished using large mesh screens or a macerator to shred the material for removal using a scalper or small mesh (2000μ) shaker screen.

Physical separation using one or more of the technologies mentioned above would likely be the next step in the treatment process. The laboratory and field pilot studies conducted by the USACE employed the use of screens and hydrocyclones to accomplish this task, although other technologies may be just as effective. Recent work completed for the Fox River (Shaw Environmental 2005) used a flotation process to separate sand from the finer grained components, however, tests to confirm potential reductions in chemical concentrations have not yet been conducted locally to verify if this process would be suitable for the proposed application.

6.2 Treatment Technologies

The following treatment technologies were identified and discussed in Section 5 as potential options for a regional contaminated sediment treatment facility:

- Thermal Destruction
  - Incineration
  - Pyrolysis
  - High-pressure oxidation
  - Vitrification

- Thermal Desorption
  - High-temperature thermal processor
  - Low-temperature thermal processor
  - X-TRAX system
  - Desorption and vaporization extraction system
  - Aerobic thermal processor systems

- Immobilization
  - Cement-based additions

- Extraction Technologies
  - Basic Extractive Sludge Treatment (BEST) process
  - CF Systems solvent extraction
  - Carver–Greenfield process
  - Soil washing

- Chemical Treatment
  - Chelation processes
  - Dechlorination
  - Oxidation

- Bioremediation
  - Bioslurry
  - Contained Land Treatment Systems

- Composting
- Contained treatment facility

The use of thermal destruction and desorption technologies for treating contaminated sediments in Southern California does not appear to be warranted considering that they were developed primarily for sediments with much higher contaminant concentrations, require infrastructure that is very costly to construct and operate, and produce a glass like by-product that is not readily marketable in the region (GeoSyntec Consultants). As such, these technologies were not carried forward for further consideration in designing a regional treatment facility.

The use of cement-based additions to immobilize contaminants and produce a high quality fill material from impacted dredge materials has been evaluated by many researchers, including studies conducted for the USACE using sediments collected within the study area (USACE 2002), and found to be very effective. The cost to implement this technology is approximately $45/m and recipients for the treated material are available within close proximity of the dredge locations (i.e., ports and landfills). This technology is, therefore, carried forward as a viable alternative for use in a regional treatment facility.

Most extraction technologies rely on the use of solvents to strip the contaminants from the sediment particles, producing a "washed" sediment fraction and a contaminated solvent waste stream in the process. A recent field pilot study conducted by the USACE (Appendix C) revealed that a simple seawater rinse, used in conjunction with a hydrocyclone particle sorting process, was sufficient to significantly reduce contaminants and did not produce solvent wastes requiring further management. Because sediment contaminant concentrations for the USACE dredge areas are typically low, sediment washing/extraction technologies using anything more aggressive than water or mild detergents is not expected to be necessary. As such, most of the proprietary processes described in Section 5 are not warranted for use in this region for typical USACE dredge material.

The chemical treatment technologies discussed in Section 5 and mentioned above were developed for use with one or more specific classes of compounds. Typical contaminated dredge material from within the USACE study area reflect the results of urban runoff and frequently contain mixtures of contaminants such as metals, PAHs, pesticides, and PCBs. The use of one or more of these technologies to treat the dredge materials may be suitable for reducing contaminant levels, but would not remove trash and organic debris or make it more suitable for beneficial reuse. As such, the material would still need to be disposed of at an upland landfill since ocean disposal is only considered appropriate for un-altered dredge materials.

Bioremediation technologies have been successfully used for treating many organic contaminants, but are not as effective for use with inorganics (i.e., metals). Typical USACE contaminated dredge material contains elevated concentrations of both organic and inorganic contaminants; therefore, bioremediation approaches may not be sufficient for use singly. Further, these technologies typically require large stock pile areas for treatment, which is a limiting factor for all of Southern California. Space is a premium throughout the study area and treatment technologies that require large work areas for processing and storage will not be given a high priority for implementation.

6.3 Evaluation Summary

Table 6-1 summarizes the evaluation of pre-treatment and treatment technologies discussed in Sections 6.1 and 6.2, adding information related to potential treatment costs and overall impacts. In consideration of the physical characteristics of typical dredge material for which the USACE is responsible within the Los Angeles Region (Section 3), and the review of available treatment technologies presented in Sections 4 and 5 (summarized in Section 6.2) the following approach is recommended for use to implement a regional sediment treatment facility:

- Step 1 – Screens to remove large trash and debris
- Step 2 – Physical particle separator to remove the course sands
- Step 3 – Cement-based binders to fix or stabilize fine-grained materials
- Step 5 – Process water treatment or reuse

Table 6-1
Evaluation Summary of Pre-Treatment and Treatment Technologies

(Pre)Treatment Technology	Effectiveness		Technical Difficulty	Land Requirements	Potential Impacts	Relative Cost[3]
	Organics	Inorganics				
Active/Passive Dewatering	NA[2]	NA[2]	Min	Min to Very Large	Water	Low
Physical Separation	Good[1]	Good[1]	Min	Min to Medium	Water	Low
Thermal Destruction	Good	Marginal	Medium	Medium	Air	High
Thermal Desorption	Good	Marginal	Medium	Medium	Air	High
Immobilization	Good	Good	High	Medium to Large	Air	Medium
Extraction Technologies	Good	Good	High	Medium to Large	Water	High
Chemical Treatment	Good	Good	High	Medium to Large	Water, Air	High
Bioremediation	Good	NA[2]	Medium	Large	Water, Air	Low

[1] Technology removes contaminants from sand fraction only, fines remain contaminated.
[2] NA = Not applicable or effective treatment approach.
[3] Costs presented within relative ranges where Low = <$25/yard; Medium = $25-$50/yard; High = >$50/yard.

Most of dredge areas within the USACE's purview can be classified as having a high trash and debris load that must be removed prior to processing. As such, some form of mechanical screening will be needed. USACE dredge material also typically contains a high sand content which can provide both a beneficially reusable source material as well as a way to reduce the volume of material for disposal or some other means of treatment. To accomplish this, some form of physical separation process will be required to separate the cleaner sand fraction from the contaminated finer-grainer material. Lastly, the remaining material will need to be either treated to remove contaminants or dewatered for upland disposal.

None of the specific treatment techniques discussed in Section 5 are particularly well-suited for this material due to their high operating costs and inability to treat both inorganic and organic based contaminants. USACE dredge material is considered mildly contaminated (Section 3) with chemical concentrations significantly below RCRA hazardous waste thresholds. Therefore, once dewatered, this material is usually suitable for disposal at a Class III landfill, without any additional form of treatment. This basic approach is further elaborated in the following section and specific design and siting considerations are discussed.

7.0 DEVELOPMENT OF A REGIONAL TREATMENT FACILITY

Recent activities of the Los Angeles CSTF include developing a long-term contaminated sediment management strategy (CSTF 2005) which relies heavily on the notion of balancing beneficial reuse options against aquatic disposal options for contaminated materials. It is anticipated that a similar approach will be included in the Los Angeles Regional DMMP which is in preparation by the USACE. Previous activities of the CSTF and USACE related to this topic have been limited to researching potential markets for treated contaminated sediments in the Los Angeles Region. To date, no studies have been conducted specifically to evaluate feasibility and costs associated with developing a regional facility dedicated to storing and/or treating dredge materials for beneficial reuse within the region.

Evaluated individually, contaminated sediment treatment alternatives almost always cost more than aquatic disposal or nearshore fill options. In an effort to identify ways to promote treatment and beneficial reuse in the County, the CSTF members developed a concept for a regional processing facility where sediments could be stored, treated and then reused, on an as needed basis, in various upland applications such as fill material, cement products, landfill daily cover, roadway base material, etc. This concept offers the following advantages:

- Capital development costs can be amortized for the facility over multiple projects/years vs. each project;
- Provides ability to develop larger processing facility which will lower per unit treatment costs;
- Provides opportunity to combine disposal permitting efforts by maintaining a single user permit for operating the facility;
- Allows for temporary storage of dredge material so that treatment can occur independent of dredging;
- By storing and treating the material over longer timeframes it will provide for a more constant supply of end use products for export;
- Locating the facility near regional distribution points (e.g., rail lines or waterways) will provide for greater opportunities to locate end users; and
- Provides a long-term and environmentally protective solution to the regional problem of contaminated sediment disposal.

7.1 Site Requirements

Based on an initial evaluation of project opportunities and constraints, the following list of processing site location qualities has been developed:

- Processing site must be in close relative proximity to the majority of the target dredge areas to minimize transport or pumping costs
- Processing site must allow for quick and easy transport of dredge materials to the facility, without impacting local infrastructure (roads) and air quality
- Processing site must allow for wastewater elimination during dewatering step
- Processing site must be located in area that provides for easy transport of treated material to target markets (e.g., roadway developed for haul truck passage, railroad lines, waterfront access)
- Processing site must not be located in area where high noise levels or potential offending odors resulting from organic-rich sediment will cause adverse impacts to nearby residences
- Processing site must be located in area not containing sensitive habitat or groundwater resources
- Processing site lease/purchase rates must be competitive to allow for cost-effectiveness
- Processing site must contain sufficient space for storage of bulk sediment, treatment equipment, and final product storage

7.2 Location

Taking into consideration the target site qualities discussed in Section 7.1, potential processing site options were researched and two categories were identified for the Los Angeles Region: (1) mobile barge mounted systems that could be transported to the dredge site (e.g., as was used for the study presented in Appendix C); and (2) one or more upland locations which provide either direct or adjacent waterfront access. Based on the criteria presented above, potential upland regional locations include:

- Upland property located along the non-residential, lower portion of the Los Angeles River where a pipeline could be used to transport the dredge materials further inland;
- Any one of the THUMBS energy islands located in Long Beach;
- Upland property located at the Seal Beach Naval Weapons Facility;

- Upland property located within the ports of Los Angeles or Long Beach;
- New land created by the City of Long Beach adjacent to the City's harbor marina; or
- New land created by the County on or near the break water jetty at Marina del Rey.

7.3 Treatment Approach & Facility Design

Under either upland or barge mounted scenarios, sediment processing at a regional facility would likely consist of a series of mechanical and/or chemical systems to first extract potentially reusable material (e.g., sand) and then to treat the remaining material to render it inert for disposal or upland reuse applications. The specific design of the treatment system may vary depending on the physical characteristics of the material (i.e., sand content, presence of debris) and method for delivery to the site (i.e., hydraulically pumped vs. mechanical clamshell). Regardless of the specific equipment, the treatment process will likely include some common design elements. Figures 7-1 and 7-2 provide example scenarios for sediment processing considering hydraulic and mechanical dredging sources.

Both approaches include a mechanism for creating a sediment slurry of approximately 10 to 15 percent solids and then passing the material through screens and a macerator to remove large debris and grind up the smaller debris items. This material is then removed using a scalper so that the feedstock to the hydrocyclones is free of trash and debris. Next, a series of hydrocyclones can be used to separate the clean sand from the finer-grained, and more contaminated particles. The washed sand can then be exported as clean fill material or for beach nourishment. If needed, the residual slurry can be reused for suspending additional sediments, creating a closed treatment system or discharged to a settling tank to separate the fine grained particles from the overlying water.

Slurry water treatment will likely require a multi-step process that begins with gravity settling. This process may be aided by the addition of flocculants to the water to speed up the process. Once settling has occurred, the overlying water may or may not be suitable "as is" for discharge. If the water is determined not to be suitable, additional treatment steps may be needed such as media filters, carbon or resin beds, or the addition of chemicals to bind up and settle any remaining contaminants (e.g., EDTA for metals).

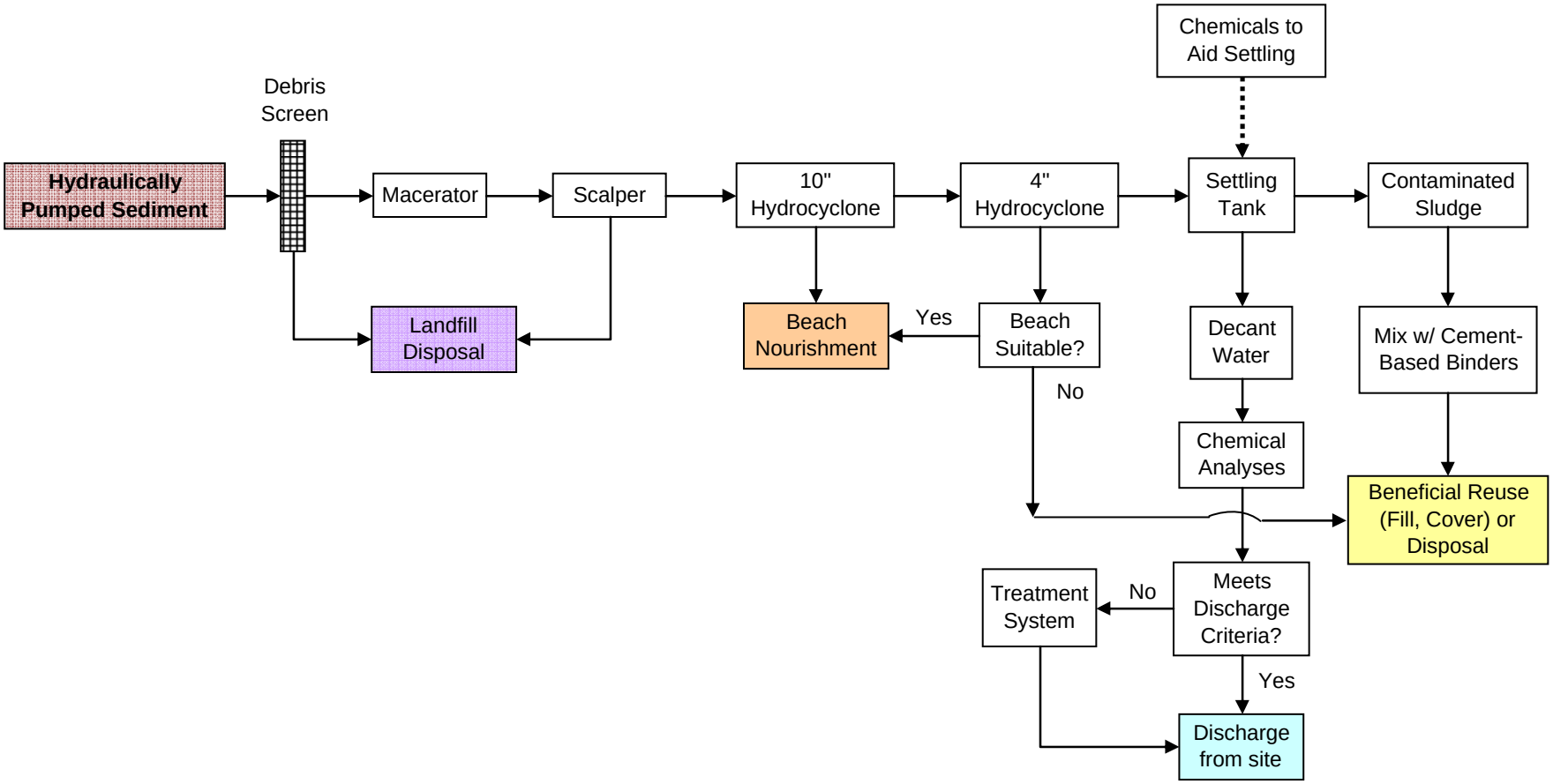


Figure 7-1
Sediment Treatment and Reuse Site Treatment Design Option #1 (Hydraulic Dredging)

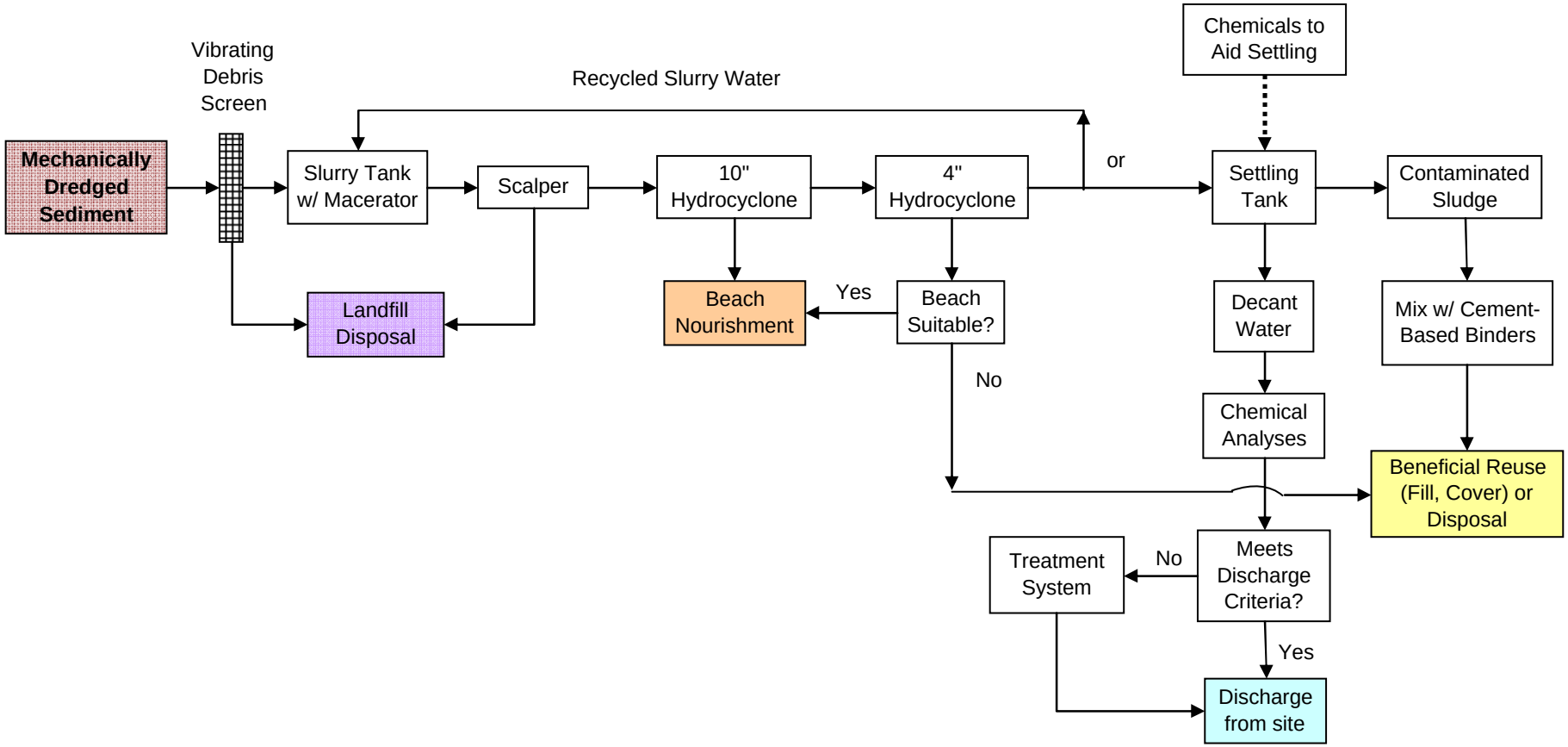


Figure 7-2
Sediment Treatment and Reuse Site Treatment Design Option #2 (Mechanical Dredging)

The fine-grained, contaminated, sludge remaining in the settling tanks would then be removed and dewatered for disposal. Active dewatering can be accomplished physically by using belt presses or centrifuges, or chemically using cement-based binders. Passive dewatering can be accomplished by simply allowing the material to air dry. Two advantages of using cement-based binders to dewater the sludge is that they will (1) bind up most of the contaminants in the process and allow the material to be disposed of more easily, and (2) the treated material will exhibit much greater geotechnical strength which could allow the material to be used as sub-base fill material.

Using these conceptual treatment designs, example facility layouts are presented for three potential facility locations: City of Long Beach upland facility, City of Long Beach shoreline facility and Marina del Rey breakwater facility; each presented in Figures 7-3 through 7-5.

7.4 Construction and Permitting

Because the USACE (federal government) is not responsible for dredge material treatment and/or disposal, treatment facility construction would need to be designed and funded by one or more of the local dredging sponsors (e.g., City of Long Beach, the County, POLA, POLB, etc.). Facility development would require the same local, state, and federal permits as any other capital development project. If the selected treatment design includes provisions for ongoing process water discharge, a National Pollutant Discharge Elimination System (NPDES) discharge permit will likely be required by the California State Water Quality Control Board.

7.5 Models for Long-Term Management & Operation

The development and use of regional sediment treatment facilities is rare in the United States so finding a suitable model to base the current proposal on is difficult. Currently, the Los Angeles CSTF members, including the USACE have considered the following potential multi-use disposal scenarios for the region.

- CDF
- Confined Aquatic Disposal (CAD)
- Shallow Water Habitat Creation
- Upland Re-Handling/Processing Facility
- Upland Gravel Pit Disposal

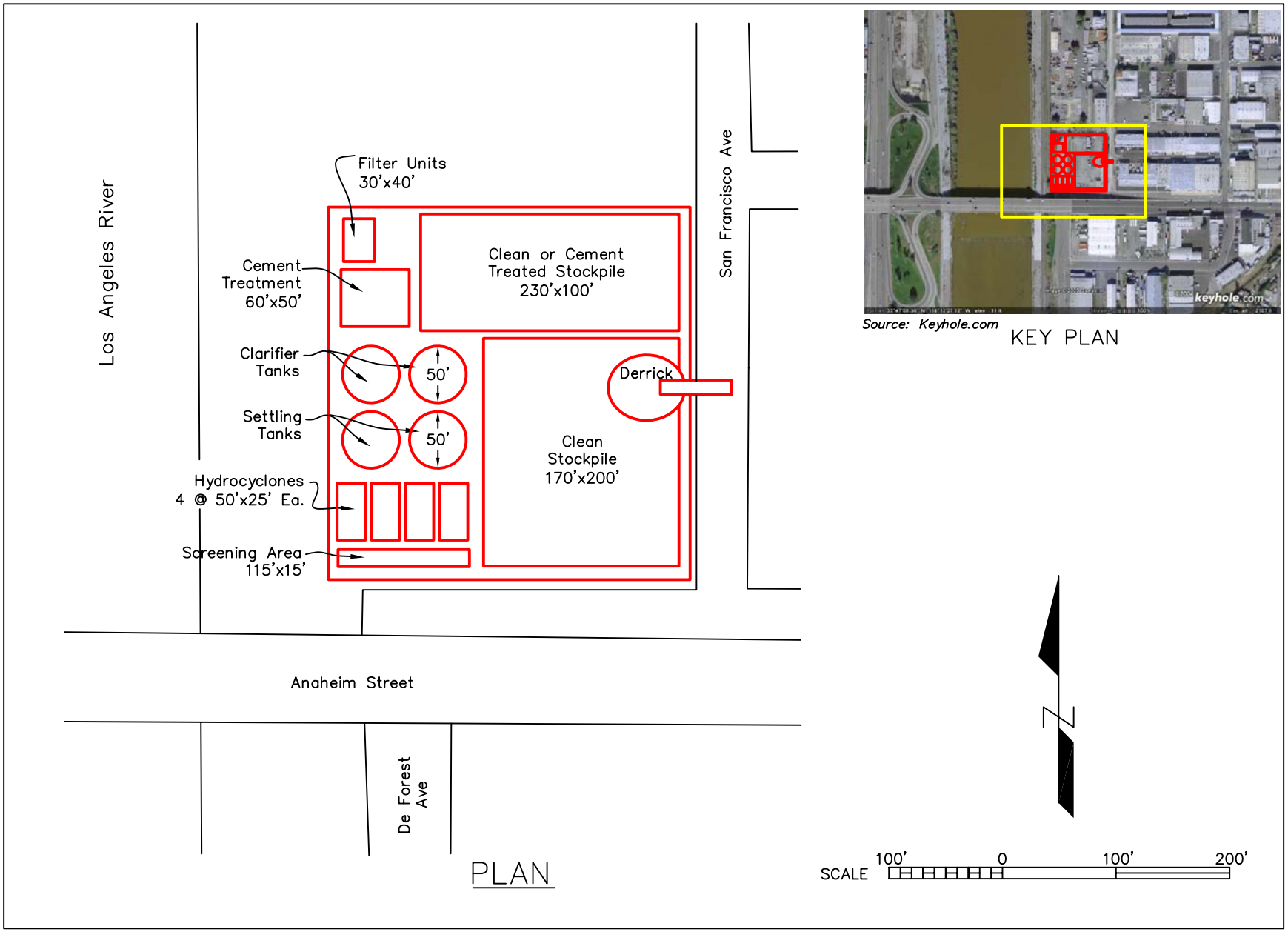


Figure 7-3
Anaheim Street Site

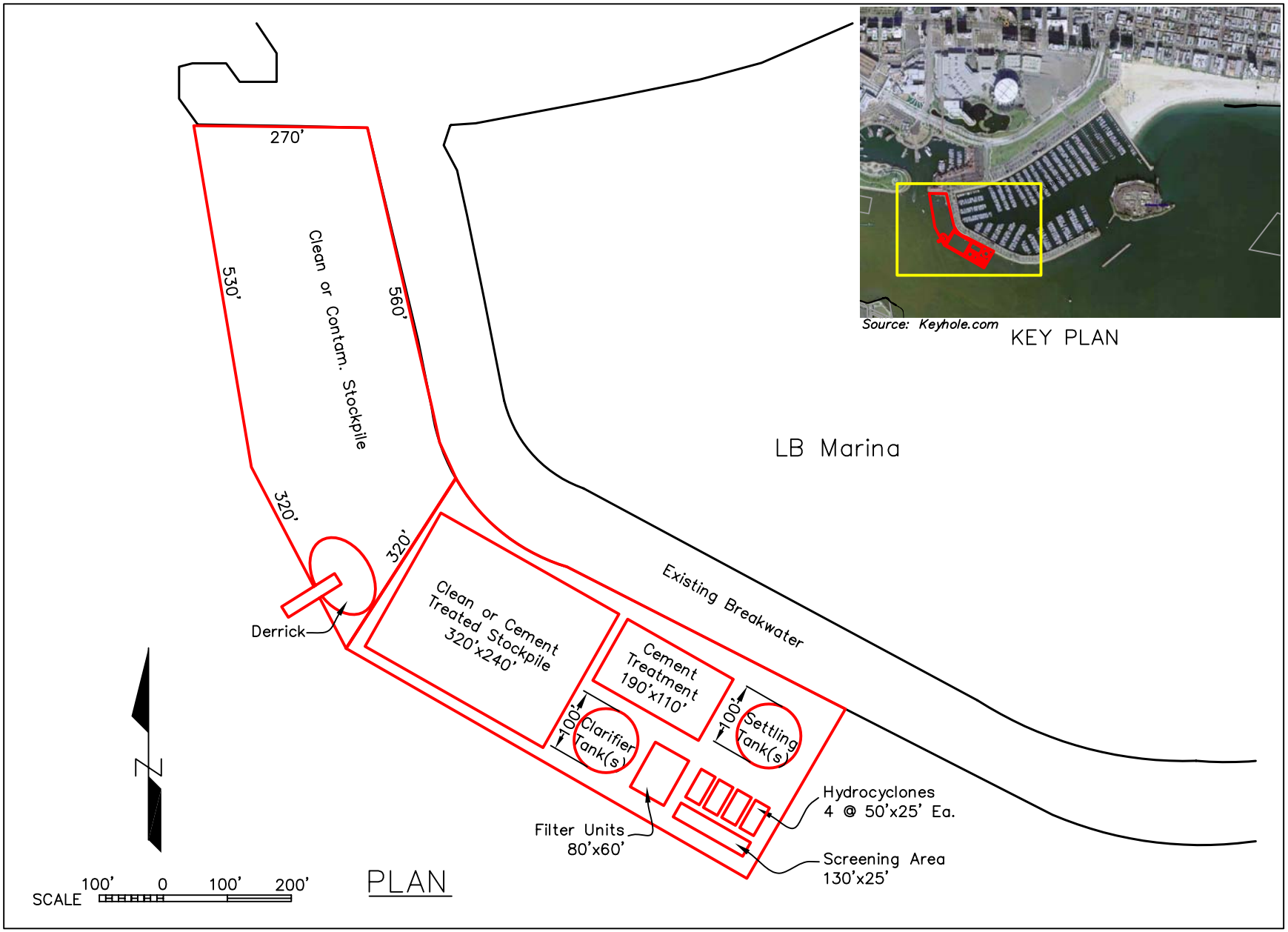


Figure 7-4
Long Beach Marina Site

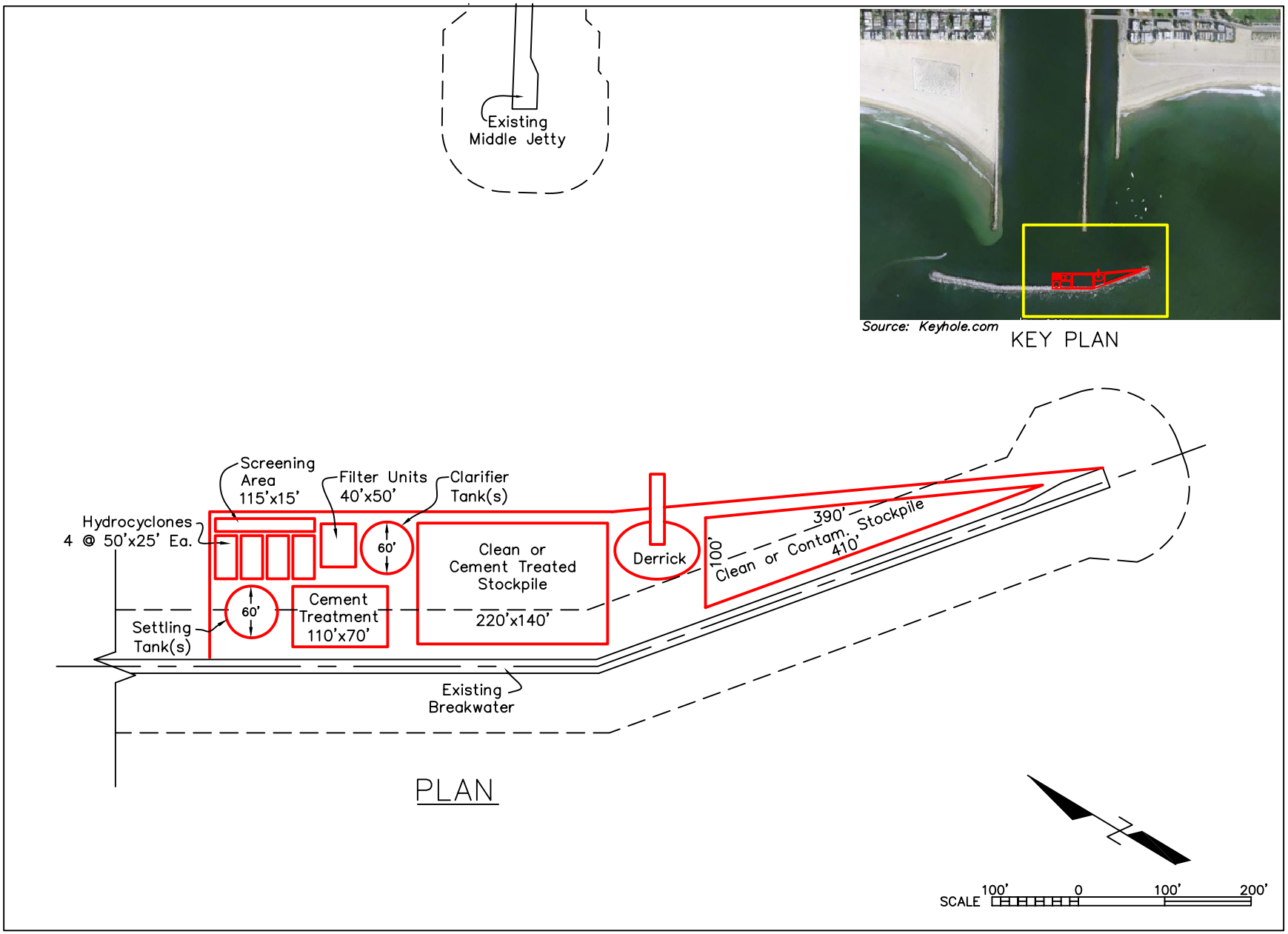


Figure 7-5

Marina del Rey Site

While all five of these options have the potential to support disposal or processing by multiple parties, they can actually be separated into two categories, each with very different characteristics and ownership/management issues. A CDF or shallow water habitat is not really a multi-user facility, but rather an individually permitted project that occasionally allows disposal by multiple parties on an opportunistic basis. On the other hand, a CAD, upland re-handling facility, or upland gravel pit could easily be operated as multi-user disposal or processing facilities. Consider the following comparisons and contrasts:

Project Specific/Single User Site for Disposal or Beneficial Reuse (CDF, shallow water habitat)	**Long-Term/Multi-User Site for Disposal or Beneficial Reuse (CAD, upland re-handling facility, upland gravel pit disposal)**
• Individual project permitted based on specified fill material.	• Open-ended permit with range of material types authorized for disposal.
• Schedule driven by development plans and contract duration (typically, speed is of the essence to reduce costs). • Very narrow window of opportunity for disposal by other parties.	• Schedule driven by capacity. • No disposal or processing windows. • Typically permitted for disposal or processing for many years or decades.
• Monitored during construction and possibly upon completion.	• Monitored routinely during operation (i.e., commercial landfill) for regulatory compliance.
• No tipping fees typically collected. • Project cost is fixed and use of other fill material may offset import fill costs.	• Tipping fees common to offset capital and management costs or facility operated for profit.
• Contractor carries insurance bonds during construction to manage liability.	• Owner/operator maintains long-term liability insurance similar to landfill.

Both CDFs and shallow water habitat areas have been designed and constructed within the region so management strategies already exist for those scenarios. Many of the capital improvement projects (i.e., terminal development) within the POLA and POLB include the use of CDFs, and at least two examples exist for the development and creation of shallow water habitat areas (Cabrillo and Pier 400). For both options, there are no outstanding ownership or management issues to resolve. Land is either privately owned or leased from the State of California and environmental impact assessments are conducted prior to construction and certified by the project proponent or CCC. Permit applications are reviewed and approved by the California State Water Quality Control Board, EPA, and the Corps and disposal occurs as a single action. Long-term management is typically not required to monitor for contaminant release, but is frequently conducted to evaluate biological re-colonization.

True multi-user disposal/treatment sites (i.e., CAD, upland re-use facility, and upland gravel pit disposal) have not been developed with the region and there are no examples for suitable management and operation. Some of the unresolved issues associated with these sites include the following:

- No local sponsor(s) have been identified to fund or develop the site
- A suitable site has not yet been identified
- Questionable market locally (per GeoSyntec Report for CSTF)
- Suitable processing technology not yet confirmed
- Operational and long-term liability
- Groundwater protection
- Host jurisdictions
- Environmental monitoring not defined
- Corrective action triggers and actions
- Administrative costs

7.6 Action Plan for Implementation

While some advances have been made with regard to the development of treatment technologies (see Appendices B and C), many unresolved tasks remain prior implementing a regional contaminated sediment treatment facility. Although not inclusive, the following action items have been identified:

- Identify a local sponsor and/or developer;
- Identify a suitable location for the facility;
- Finalize the design for treatment technologies to be included at the facility;
- Identify and secure applicable environmental permits, development permits, etc.;
- Develop an operations and management plan for the facility;
- Develop and materials management and disposal plan for the facility;
- Identify insurance and liability requirements and draft legal agreements for material transfer; and
- Assuming that the primary byproduct from the facility will be clean sand, coordinate site development with regional beach renourishment representatives (e.g., USACE, City of Long Beach, Los Angeles County Beaches and Harbors, SANDAG) to identify and rank beach disposal needs and volumes.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the review of available treatment technologies presented in Section 7, and the results of the pilot treatment studies presented in Appendices A through C, one or more sediment pre-treatment technologies should be sufficient for use as a regional treatment approach for contaminated marine sediments within the Los Angeles Region. The use of shaker screens and hydrocyclones to separate and recover clean, course sands from contaminated dredge material has been proven to be highly effective at producing a reusable sand product for beneficial reuse, while at the same time reducing the volume and weight of contaminated sediment requiring disposal.

These results further suggest that, with minor refinements, this process can provide an economical approach for sediment treatment at one or more regional processing facilities such as that described in Section 7. Preliminary cost estimates suggest a range of between $10 to $20/yard to operate a hydrocyclone sand separation facility capable of processing 2,000 yards/day of contaminated material, not including disposal fees for the dewatered, fine-grained contaminated fraction. Recommendations for moving forward include the following administrative and technical action items:

Administrative Action Items

- Identify a local sponsor and/or developer;
- Identify a suitable location for the facility;
- Identify and secure applicable environmental permits, development permits, etc.;
- Develop an operations and management plan for the facility;
- Develop and materials management and disposal plan for the facility;
- Identify insurance and liability requirements and draft legal agreements for material transfer; and
- Assuming that the primary byproduct from the facility will be clean sand, coordinate site development with regional beach renourishment representatives (e.g., USACE, City of Long Beach, Los Angeles County Beaches and Harbors, SANDAG) to identify and rank beach disposal needs and volumes.

Technical Action Items:

- Finalize the design for hydrocyclone/washing treatment technologies to be included at the facility;
- Develop disposal and/or reuse options for the dewatered sludge material;
- Develop a wastewater treatment system to allow for direct discharge of treatment water; and
- Conduct additional full-scale pilot studies at upland locations to refine bulk sediment handling and slurry tank practices.

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APPENDIX A
WET SIEVING SAND SEPARATION LABORATORY PILOT STUDY

Sand Separation in Estuarine Sediments and Mechanical Dewatering for Management of Fine Residuals - Bench Scale Feasibility Testing

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ABSTRACT **Recovery of sand for beneficial use, with mechanical dewatering of fine residuals, is one dredged material management alternative under consideration by the United States Army Corps of Engineers (USACE) Los Angeles District. Bench scale testing was conducted to model hydrocyclone separation and plate and frame dewatering. Coarse and fine fractions were separated by wet sieving. Contaminant analysis revealed little variation between fractions in concentration of PCBs, pesticides, oil and grease and TOC, although the concentration of silver in the fines cake was approximately nine times higher than in the sand. Flocculants were tested on the fine slurry to assess the improvement in drainability of the sediment. Dewatering testing was conducted using a bench top recessed chamber press. Differences in cycle time, cake properties, and filtrate quality were assessed for selected filter fabrics, slurry concentrations and flocculent dosages. Gravity drainage was improved with the addition of flocculent, but dewatering cycle times and cake quality were comparable for all combinations tested. Higher suspended solids were observed in the pressate of unflocculated sediment, but decreased markedly once a cake was formed. Lengthy cycle times, while not directly scalable, indicate large press capacity would be required in order to couple the dewatering circuit with a typical dredging operation.**

CE Database Subject Headings: Dredging, Dewatering, Sediment, Sand, Separation, Tests

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INTRODUCTION

The Los Angeles District of the Corps of Engineers is actively engaged in evaluation of innovative treatment and management alternatives for dredged material. Navigation dredging is scheduled for FY2005 in Marina del Rey and Port Hueneme. A sizeable portion of the sediments there are predominantly sandy in composition, with some contaminated fines. The District is interested in evaluating the feasibility of recovering the sand using hydrocyclones, and investigating treatment and dewatering alternatives for the residual fine materials. Approximately 40% of the total dredging scheduled for FY05 is projected to be suitable for treatment (about 15-25K m^3).

A bench scale laboratory study was conducted using a blended composite of materials from both sites. The principal objective of the study was to simulate a treatment train for separation of sand and dewatering of the fines. Studies were structured to provide information regarding contaminant distribution in the sediments, dewaterability of the material, conditioning requirements, filtrate quality, and weight and volume of process streams.

Methods and Materials. Sediments were obtained from Port Hueneme (PtH) and Marina del Rey (MdR) and transported in food grade plastic containers or HDPE buckets packed in ice. Samples were logged in, temperature was checked, and they were placed in a cooler at 4° C. All of the Port Hueneme sediment (~49 L or13 gal) was combined with the Marina del Rey sediment (~34 L or 9 gal) to produce a homogeneous sediment of sufficient volume for the planned testing, with a measurable PCBs concentration. Mixing was done using a Hobart industrial mixer with stainless steel bowl. Samples of homogenized sediment were taken for analysis as specified in Table A-1. A small pore water sample was obtained for salinity testing by allowing the sediment to consolidate in the cooler for a period of time following homogenization. Samples of the bulk sediment obtained for geotechnical testing were packaged separately and taken for immediate analysis. Samples obtained for chemical analysis were stored at 4° C without preservatives prior to analysis. With the exception of the initial screening analysis to determine sediment suitability for testing, all samples were stored and submitted to the laboratory for analysis as a single batch in order to minimize variability in the results due to differences in sample preparation, calibration, and instrumentation.

Table A-1
Schedule of Chemical and Physical Analysis

Sample	Replicates	Analyses	Method
Bulk sediment	2	PCB aroclors and Total PCBs	SW-846 8082
	2	Organochlorine Pesticides	SW-846 8081
	2	Organophosphorus Pesticides	SW-846 8141
	2	Oil and Grease	EPA 418.1
	2	TOC	SW-846 9060
	2	Silver (Ag)	SW846 6010B/6020
	2	Soot	Gustafsson et al 1997
	1	Wet bulk density	Gravimetric[1]
	1	Grain Size (Sieve and Hydrometer)	ASTM D422
	1	Specific Gravity (Sp. Gr.)	MD0302
	1	Fraction Organic	ASTM D2974
	3	Water Content	ASTM 2216
	3	Particle size analysis	Coulter Counter
Pore water	1	Salinity	YSI Incorporated Salinity Meter Model 30/10 FT

1 Wet bulk density as determined gravimetrically was checked against bulk density calculated using theoretical pore volume, solids volume relationships. The methods are further described in the text.

Fractionation. Homogenized sediment was separated by wet sieving. Small samples were sieved on 4.75 mm, 500 μm, 250 μm and 75 μm sieves for visual identification of organic and carbon phases. Larger samples were sieved on 4.75 mm and 75 μm (200-mesh) sieves to produce material for flocculent and dewatering testing. These sieve sizes correspond to the boundaries of sand as determined by the Unified Soil Classification System (USCS). Salinity of tap water used for wet sieving was adjusted with Instant Ocean® to the approximate salinity of site water (34 ppt), so that contaminant solubilization would be representative of that expected in the field. Material >4.75 mm was designated as oversize and discarded.

Duplicate samples of the sand fraction (material retained on the 200-mesh sieve) were obtained and stored at 4° C prior to analysis. Slurry passing the 200-mesh sieve was retained for flocculent and dewatering testing. Samples of the fine fraction were later taken from the dewatered cake for analysis. Both sand and cake were tested for the same analytes as the bulk sediment, as listed in Table A-1.

Chemical Conditioning. Flocculants representative of anionic, nonionic and cationic polymers (Table A-2) were tested to ascertain whether any benefit in terms of filtrate quality or dewaterability would be obtained by conditioning the slurry prior to the dewatering step. Some of the slurry passing the 200-mesh sieve was further diluted to

approximately 7% solids by weight (80 g/L), representative of hydrocyclone overflow, for flocculent and dewatering testing. (The overflow slurry solids concentration was estimated based on an assumed dredge discharge concentration of 237 g/L solids. The dredge discharge concentration was based on an empirical relationship derived from field data: C_{solids} = %Fines + 3(%Sand) (personal communication Paul R. Schroeder June 2003[2]; Estes et al. in preparation) and assumes, for simplification, that 100% of the fines and the water would report with the cyclone overflow.) Preliminary flocculent testing was performed with 100 ml diluted fines slurry placed in a beaker, adding flocculent in drop-wise fashion and noting polymer volumes at which flocculation was observed. Polymers were added at 0.1% strength.

Those polymers producing good flocculation at lower dosages were further evaluated by a simple gravity drainage test. Polymer was added to 100 ml diluted fines slurry and the slurry was poured into a vacuum filtration apparatus fitted with a 90-mm Whatman 541 filter paper with 20-25 μm openings. The slurry was allowed to drain by gravity and recovered volume was recorded at intervals over the first 10 minutes. Vacuum was then applied and when no further drainage could be observed, final filtrate volume, turbidity and total suspended solids (TSS) were noted. The best flocculent and dosage was selected based on filtrate SS and gravity drainage rate.

Table A-2
Chemical Conditioners

Manufacturer	Trade Name	Form	Charge	Charge Intensity	MW
Ciba Specialty Chemicals Corporation	Magnafloc 10 (MF10)	Powder	Anionic	weak	very high
	Magnafloc 351 (MF351)	Powder	Nonionic		high
	Magnafloc 368 (MF368)	Powder	Cationic	high	low
	Zetag 7125	Liquid	Cationic	high	very low
	Zetag 7623	Granular	Cationic	very low	very high
GE Betz	PC1190	Liquid	Cationic	high	low
	CE1168	Emulsion	Cationic	low	low
	CE1169	Emulsion	Cationic	medium	medium
	CE2688	Emulsion	Cationic	high	high
	AE1125	Emulsion	Anionic	high	high

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Dewatering. A series of dewatering tests were performed using the diluted fines slurry. Testing was conducted with a 7.62 cm (3 in) bench top press manufactured by US Filter (Model 75N-1-MYHS). The press consists of a reservoir and filter chamber connected by high-pressure tubing, with a hydraulic ram to hold pressure on the assembly (Figure A-1). The system has a maximum operating pressure of 1551 kN/m^2 (225 psi). After filling with slurry, the reservoir is pressurized gradually, beginning at 172.4 kN/m^2 (25 psi) and increasing at uniform increments when filtrate flow slows to 2-4 cm^3/min. Normal operating pressure is 689.5 kN/m^2 (100 psi) or higher. The test is usually terminated when flow slows to 2 cm^3/min at highest pressure. (The termination flow rate corresponds to 0.41 L/min*m^2 (0.01 gpm/ft^2), the typical termination point in full scale operation.) Gradually ramping up the pressure reportedly allows for better cake buildup, but is not a requirement for operation. Cycle times are not reduced by increasing pressure, however, according to the manufacturer.

The bench top press has a fixed volume chamber, which can be adjusted by installing different width chambers between the outer plates (Figure A-2). Using the 2.54 cm (1 in) chamber, a volume of 2L slurry at 7% solids by weight was needed to produce a full cake. A range of conditions was tested, including different filter cloths, polymer dosages, slurry volume and slurry solids concentrations. Some tests were also conducted including a fine sand fraction (+75 μm -106 μm) in the slurry, to evaluate improvement in dewaterability. Because the hydrocyclone separation does not produce a sharp cut, some sand will report with the fines to the dewatering circuit, and some fines will report to the sand fraction. The degree of carryover above and below the target cut size will be a function of the size and configuration of hydrocyclone used, solids concentration in the slurry, and throughput (Svarovsky 2000). Inclusion of sand in the fine slurry is therefore within the range of possible full scale process conditions.

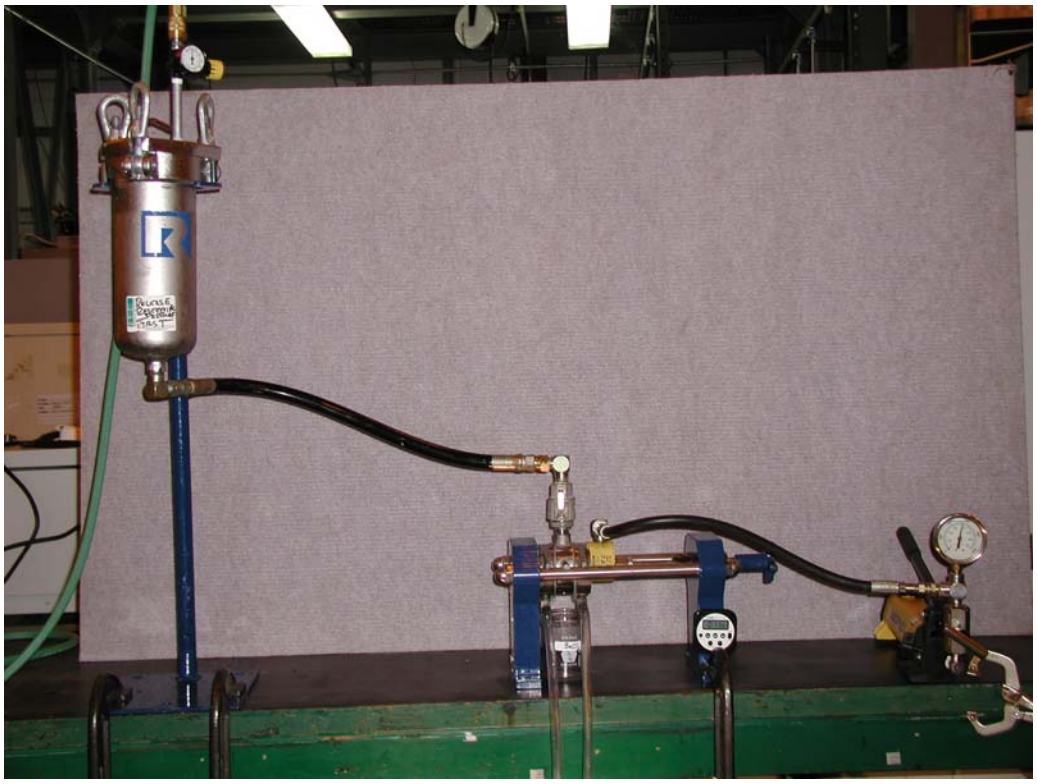

Figure A-1
US Filter 7.62 cm Bench Top Press (Model 75N-1-MYHS), Reservoir, Chamber and Hydraulic Ram

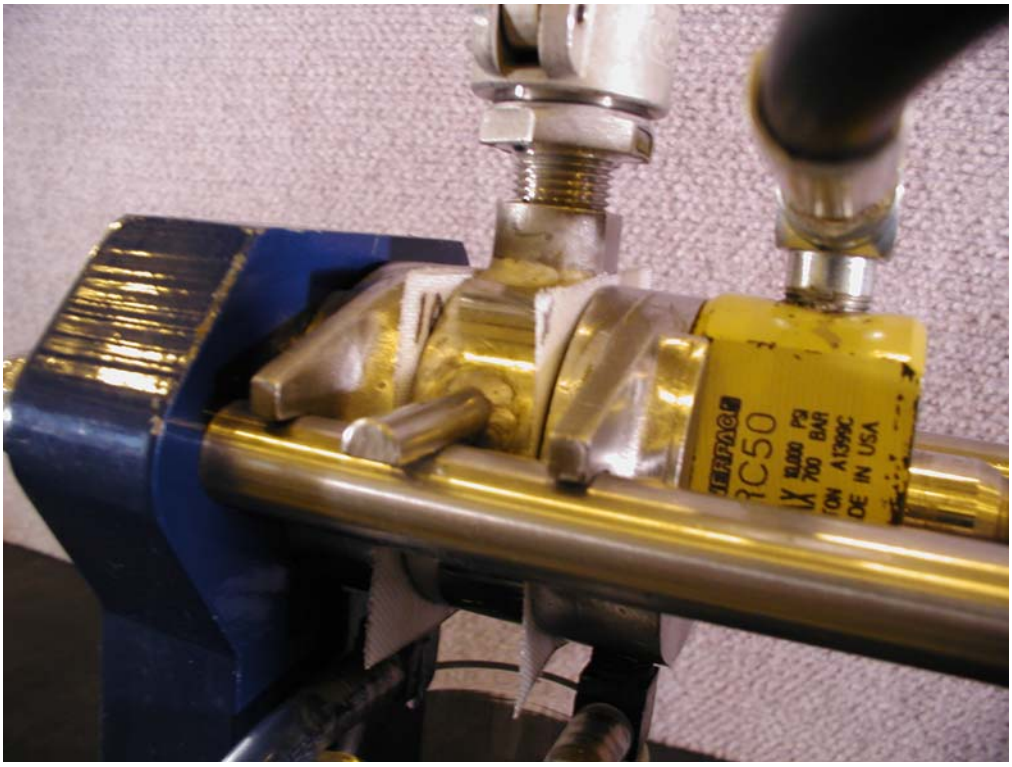

Figure A-2
Variable Chamber, Filter Fabric and Ram

Several monofilament polypropylene filter cloths were provided with the press for testing, with measured air permeability ranging from 0.28 to 0.84 m^3/s (10 to 30 cfs). Based on preliminary testing with the different cloths, the 0.28 m^3/s cloth was selected for the final testing.

A series of 16 replicate tests were performed to produce sufficient sample for contaminant analysis. These tests used 1L undiluted fines slurry at 13.2% solids (147 g/l), with polymer dosage of 0.0408 mg/g and 0.28 m^3/s cloth. (Undiluted slurry was used to minimize volume to be filtered.) Representative filter cakes were evaluated for remaining free water drainage using a paint filter test (Setup Figure A-3). Samples were also taken (in triplicate) from the filter cakes for measurement of percent moisture, percent solids and contaminants of concern (COCs). Filtrate was analyzed for TSS, turbidity and COCs.

Figure A-3
Paint Filter Test Setup

Results

Sediment Characterization. Grain size distribution of the combined sediment as measured by dry sieving and hydrometer is summarized in Table A-3. The only material >4.75 mm present consisted of debris, such as shell fragments, vegetation and plastic (Figure A-4). The combined sediment is characterized as 54% sand, with 46% fines. The sandy character of the sediment is apparent (Figure A-5). Little black carbon was visualized in any of the size fractions, but a coarse organic fraction appearing to consist of leaf litter and other natural material was present in the 500 μm to 4.75 mm size fraction. Particle size distribution as measured by coulter counter for the bulk sediment, sand and fines is illustrated in Figure A-6. Note that the sand fraction contains approximately 18 percent fines by volume, indicating some inefficiency in the sand separation. Similarly, the fines fraction contains about 8 percent sand size particles by volume. These may be irregularly shaped particles that passed through the sieve, but were measured by the Coulter as sand, or this fraction may consist of agglomerated fines that failed to break up in the sonication cell of the Coulter.

Table A-3
Grain Size Distribution

Particle Size (mm)	% Finer (by Weight)
2.000	100.0
1.180	99.7
0.850	99.6
0.600	99.2
0.425	98.8
0.300	98.1
0.212	95.8
0.150	89.0
0.106	67.2
0.075	46.0
0.044	34.8
0.033	24.0
0.024	19.1
0.013	13.2
0.009	12.2
0.006	10.6
0.005	9.4
0.003	9.6
0.001	6.9
% Gravel:	0.0
% Sand:	54.0
% Fines:	46.0

Figure A-4
Oversize (>4.75 mm) Materials

Figure A-5
Homogenized, Combined, Bulk Sediment

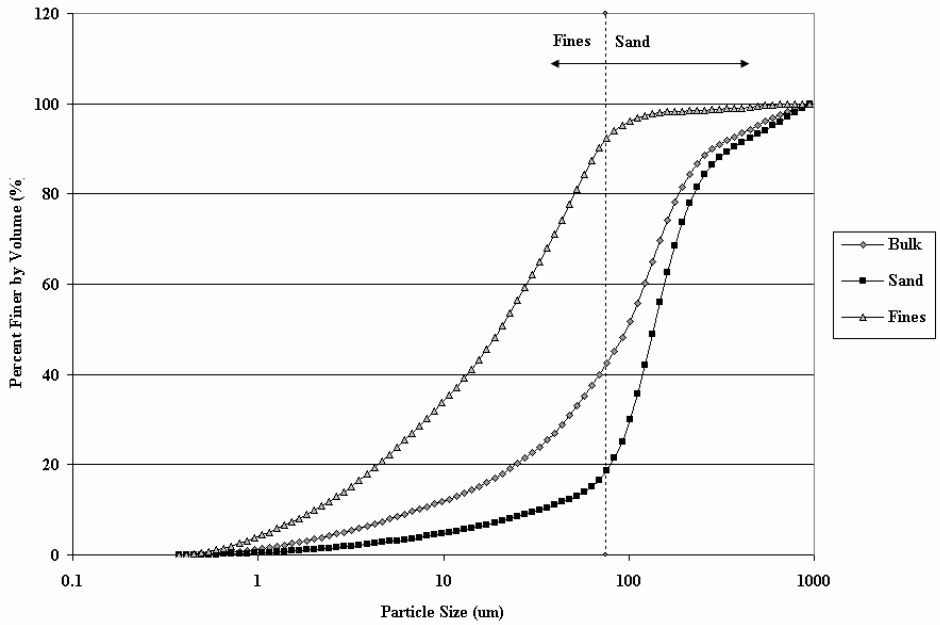

Figure A-6
Particle Size Distribution as Measured by Coulter Counter for Size Fractions

Mean total dissolved solids in the pore water for the two sediments was 33.7 parts per thousand (ppt), determined gravimetrically. Salinity, as measured by a salinity meter (YSI Incorporated model 30/10 FT), was 33.1 ppt. Wet bulk density of the combined sediment was roughly estimated by obtaining the weight of a sample in a container of known volume, and verified using unit volume relationships and percent moisture. Geotechnical characteristics of the bulk sediment, sand fraction and dewatered cake are reported in Table A-4.

Table A-4
Geotechnical Characterization of Sand and Fines Fractions

Fraction	Sp. Gr.	Organic (%)	Wet Bulk Density (g/cm3)	Total Solids (g/L)	Water Content (%)	Solids (%)
Bulk Sediment	2.7	4	1.66	1034.3	59.64	61.8
Sand	2.68	3.38	1.63	1184.5	47.4	67.1
Cake	2.72	4.6	1.76	1249.8	43.5	69.5

Chemical Analysis. Results of the chemical analysis conducted on the bulk sediment, sand, dewatered cake and filtrate are summarized in Table A-5. Mass balance on the contaminants in the sediment ranged from approximately 73 percent to 105 percent (Table A-5). Mass balance on the fractionated sediment resulted in an approximate recovery of 107.2% by weight. This is within the normal variation typically seen for fractionation studies.

Table A-5
Contaminant Concentrations in Filtrate and Sediment and Comparative Criteria

Analyte	Sample									Mass Balance (%)	ER-L	ER-M
	Filtrate			Federal Marine WQC		Sediment						
	Units	Total	Dissolved	CMC	CCC	Units	Bulk	Sand	Cake		(NOAA., 1999)	
Sediment						kg	37.86	24.34	16.24	107.2		
PCBs Total	ug/l	<0.02[a]	<0.02[a]		0.03[g]	ug/kg	43	35.4	41	93.8		
PCB1248	ug/l	<0.50	<0.50			ug/kg	42.7	46.7	47.9	118.4		
PCB1260	ug/l	<0.50	<0.50			ug/kg	63.2	40.7	46.3	72.8		
Total Aroclors		<0.50[b]	<0.50[b]		0.03[g]	ug/kg	105.9	87.4	94.2	91.2	22.7	180
Pesticides												
PPDDT	ug/l	<0.05	<0.05	0.13[h]	0.001[h]	ug/kg	<1.28	<1.25	<1.15		1.00	7.00
PPDDD	ug/l	<0.05	<0.05			ug/kg	6.38	9.73	11.5	175.4	2.00	20.00
PPDDE	ug/l	<0.05	<0.05			ug/kg	15.8	20.6	20.3	138.9	2.20	27.00
OPDDE	ug/l	<0.05	<0.05			ug/kg	9.31	17	10.1	163.9		
Total DDT	ug/l	<0.05[c]	<0.05[c]	0.13[h]	0.001[h]							
GAMCHL	ug/l	0.014[d]	<0.05			ug/kg	10.8	8.98	12.2	101.9		
Silver	mg/l	0.0012[e]	<0.0010	0.0019[i]		mg/kg	0.46	0.15	1.34	145.9	1.00	3.70
TOC/DOC	mg/l	3.2	3.05			mg/kg	16000	21000	23000	146.0		
TOC Corr[f]						mg/kg	13455	17772	20106	149.0		
Oil & Grease	mg/l	10.8	<2.0			mg/kg	1235	1210	946	95.8		
Soot						mg/kg	1310	2018	1948	162.8		

a Total of 19 congeners. Assuming a concentration of 1/10 DL for non-detects, Total PCBs concentration would be 0.038 ug/l.
b Total of all aroclors. Assuming a concentration of 1/10 DL for non-detects, Total Aroclors and congeners would be 0.10 ug/l.
c Total of DDT and metabolites. Assuming a concentration of 1/10DL for non-detects, Total DDT concentration would be 0.02 ug/l.
d Detected in only one sample. Total concentration represents the mean of 0.025 and 1/10 DL (0.0025)
e Detected in only one sample. Total concentration represents the mean of 0.0022 mg/l and 1/10 DL (0.0001)
f TOC corrected for Soot and Oil and Grease
g Criterion applies to total PCBs (e.g. sum of all congener or all isomer or homolog or Aroclor analysis)
h Criterion applies to DDT and its metabolites (i.e. the total concentration of DDT and its metabolites should not exceed this value).
i Dissolved concentration.

Chemical Conditioning. Although saline sediments tend to flocculate and settle rapidly without chemical conditioning, gravity drainage of these sediments, as reflected by filtrate volume recovered, was enhanced with the addition of flocculent. Relative volumes obtained for a 10 min filtration period are illustrated in Figure A-7. Mean filtrate recovered for 17 tests was 21.5 ml, with a minimum of 13 ml, maximum of 23 ml, and standard deviation (SD) of 6.39 ml. Mean filtrate volume obtained for two unconditioned samples is also reported in this figure (14.5 ml). Highest volumes were recovered for MF368 at a dosage of 1 ml (0.128 mg/g). The improvement in volume recovery over the 0.3 ml (0.0384 mg/g) dosage was relatively small however (14 percent), as compared to the difference between the 0.1 (0.0128 mg/g) and 0.3 ml dosages (125 percent). The 0.3 ml dosage also resulted in a 21 percent higher volume recovery than the next best flocculent (MF10 at 0.3 ml/0.0384 mg/g). Total filtrate recovered after vacuum was applied varied less between tests, with a mean recovery of 93.5 ml, minimum of 88 ml, maximum of 96 ml and SD of 2.49 ml.

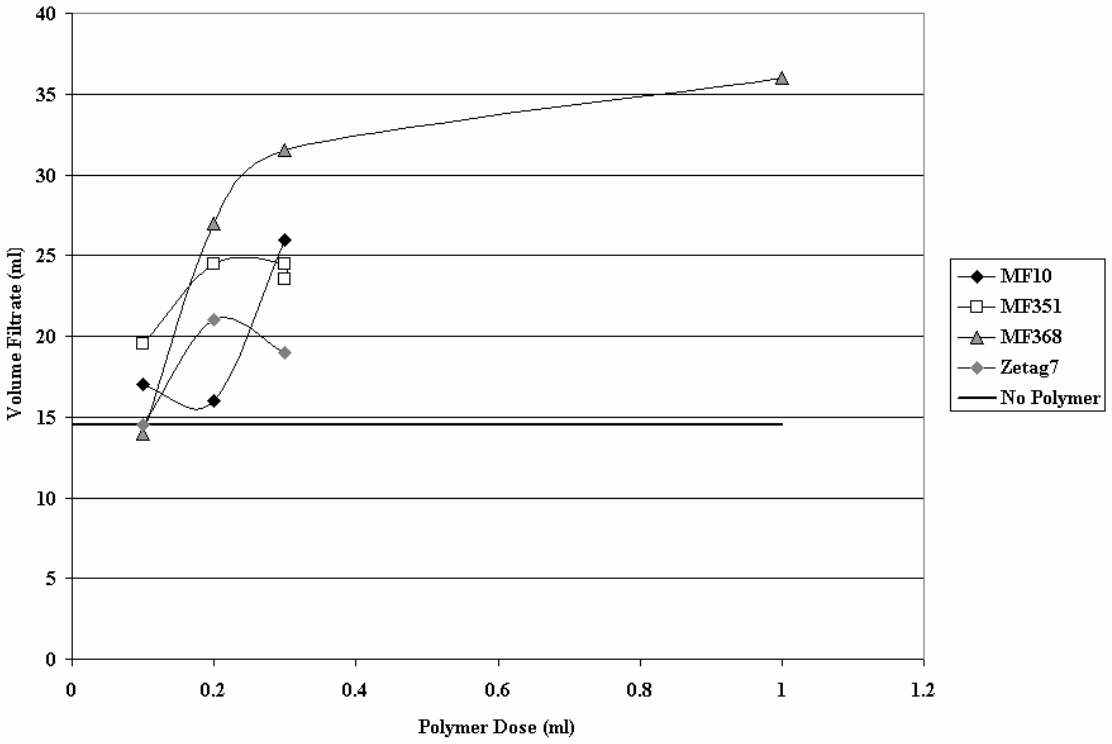

Figure A-7
Free (Gravity) Draining Filtrate Volume for Different Polymers and Dosages at 10 Minutes

Filtrate turbidity is illustrated in Figure A-8 by flocculent and dosage. Lowest turbidity was obtained with MF10 at 0.3 ml (6.69 NTU), but this was just slightly better than turbidity resulting for MF368 at 0.3 ml (7.6 NTU). Turbidity was higher for MF368 (9.62 NTU) at the 1.0

ml dosage (Figure A-4). TSS measurements were considered to be somewhat unreliable due to the low SS in the filtrate and sensitivity of the weight measurements to humidity changes and other influences.

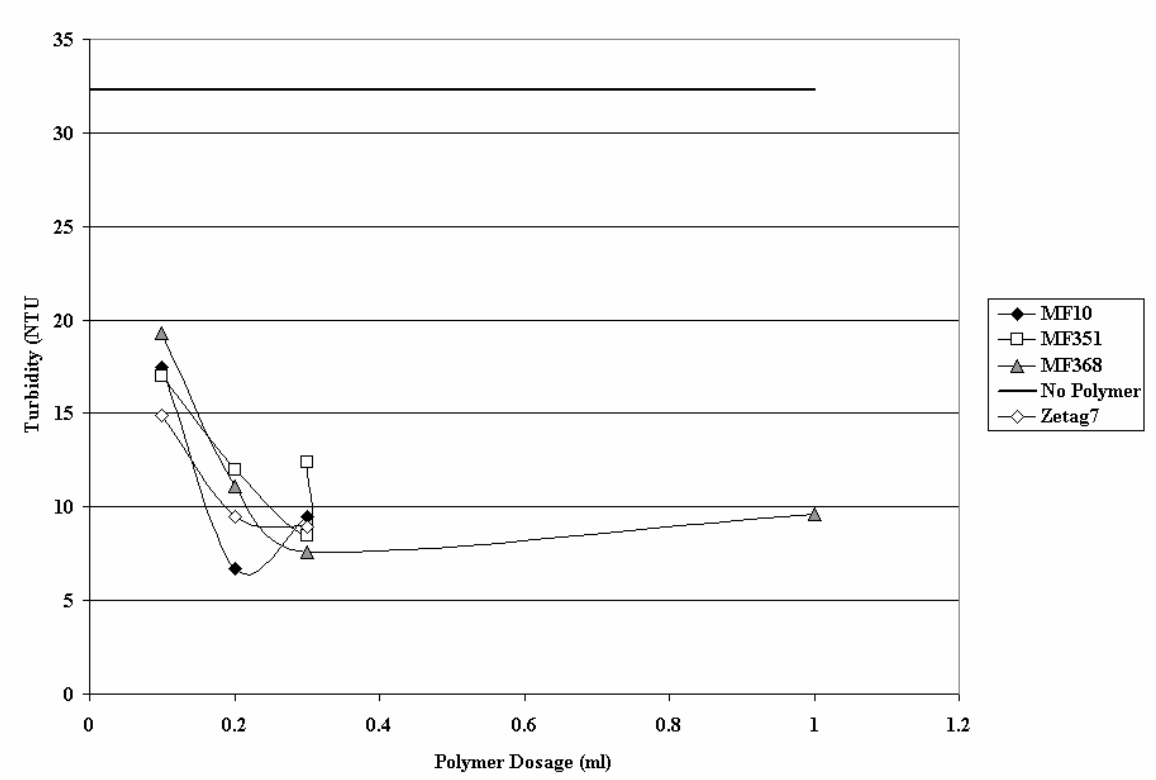

Figure A-8
Gravity Filtrate Turbidity for Different Polymers and Dosages

Dewatering. Table A-6 summarizes the testing conditions utilized for the dewatering tests. Multiple tests were run in order to assess effects of different operating conditions and treatments, although the scope did not permit execution of a factorial to support statistical analysis of the results. Tests 7 through 22 were identical replicates, with the exception of test duration, run sequentially to produce sufficient cake and filtrate for chemical analysis. The system was pressurized in gradual increments, up to a maximum pressure of approximately 100 psi. Dewatering was continued until filtrate flow dropped below 2 ml/min at maximum pressure. Cycle time varied substantially between tests, ranging from roughly 3 hrs to 9 hrs. Although three different dosages of the flocculent MF368 were used in the dewatering testing, a dose of 0.0408 mg/g (MF368) was selected for the replicate mechanical dewatering tests (tests 7-22), with the intent that filtrate TSS and turbidity reflect best case filtrate quality.

Table A-6
Dewatering Test Conditions

Test No.	Polymer Dosage (mg/g)	Filter Fabric (m^3/s)	Slurry Grain Size (µm)	Slurry TSS (%w/w)
1	0	0.84	<75	7.3
2	0.0382	0.84	<75	7.3
3	0.0382	0.28	<75	7.3
4	0.0184	0.28	<106	14.5
5	0.0184	0.28	<106	14.5
6	0.0184	0.28	<106	7.6
7	0.0408	0.28	<75	13.2
8	0.0408	0.28	<75	13.2
9	0.0408	0.28	<75	13.2
10	0.0408	0.28	<75	13.2
11	0.0408	0.28	<75	13.2
12	0.0408	0.28	<75	13.2
13	0.0408	0.28	<75	13.2
14	0.0408	0.28	<75	13.2
15	0.0408	0.28	<75	13.2
15	0.0408	0.28	<75	13.2
16	0.0408	0.28	<75	13.2
17	0.0408	0.28	<75	13.2
18	0.0408	0.28	<75	13.2
19	0.0408	0.28	<75	13.2
20	0.0408	0.28	<75	13.2
21	0.0408	0.28	<75	13.2
22	0.0408	0.28	<75	13.2

Flow Rates. Time required to complete each test varied. Flow rate was high initially for all tests, decreasing gradually to a relatively steady state flow (Figure A-9). The initial flow period was relatively consistent between tests (from time t=0 to time t=20 min, roughly). Mean effective flow rate for initial, established and overall flow is summarized by treatment in Table A-7. Because the testing was structured primarily to produce representative cake and filtrate, the data is not extensive enough to satisfy the requirements for formalized analysis of variance to assess effects of processing variables on flow rate. Based on the means obtained by treatment, however, overall flow rate was highest for unflocculated sediment, and coarse filter fabric (largely attributable to higher initial flow rate in both cases). Highest established flow rate was observed for the 2nd highest flocculent dosage however (0.0382 mg/g). Response of flow rate to differences in grain size and slurry suspended solids is more easily interpreted if dewatering test #1, the unflocculated test, is neglected. There was relatively little difference in the overall flow rate for the different grain size slurries. The lowest mean flow rate was

obtained for two of the three tests containing sand (approximately 1 ml/min lower than means for all other treatments), but standard deviation was also lowest for these two tests (Table A-7).

Filtrate quality. Both TSS and turbidity were measured in the filtrate. As expected, suspended solids releases during cake formation were noticeably higher for tests with no flocculent and for coarse weave filter fabric. Mean filtrate TSS and turbidity values reflect the effects of this initial SS release. Once a cake was formed, the filtrates all appeared (qualitatively) to be comparable with respect to filtrate SS. Table A-8 summarizes mean TSS and turbidity for the different treatments. Tests with the 2nd highest polymer dose, finest fabric weave, and finest grain size resulted in the lowest mean TSS and turbidity.

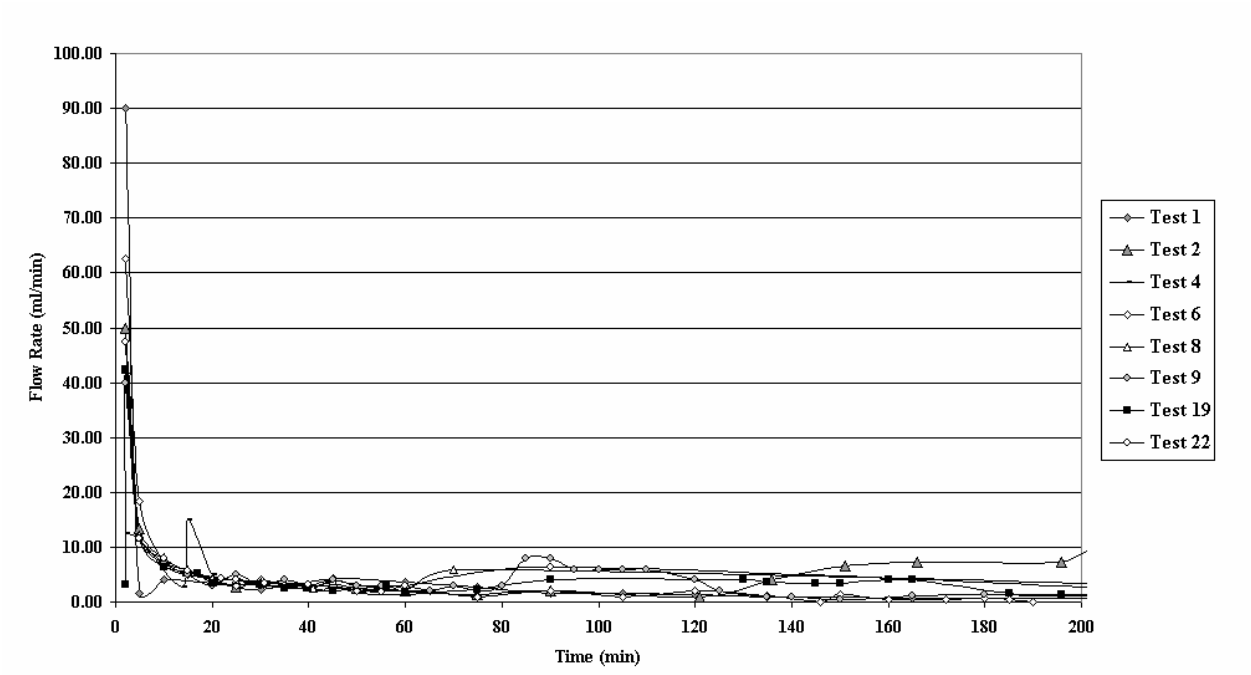

Figure A-9
Representative Filtrate Flow Rates versus Time

Table A-7
Mean Flow Rates for Treatments

Treatment	Level	Flow Rate								
		Overall			Initial			Established		
		N	(ml/min)		N	(ml/min)		N	(ml/min)	
			Mean	St. Dev		Mean	St.		Mean	St. Dev
Polymer	0	18	6.77	20.8	4	24.8	43.5	15	1.74	1.31
	0.0184 mg/g	61	4.47	8.80	15	12.9	15.1	49	1.87	1.26
	0.0382 mg/g	66	5.07	7.44	10	14.7	15.3	58	3.37	2.60
	0.0408 mg/g	334	5.10	8.51	78	14.1	14.1	270	2.43	1.44
Fabric	10 cfs	429	4.9	8.37	429	13.9	14	349	2.32	1.39
	30 cfs	50	6.62	14	50	20	30.2	43	3.68	2.97
Grain Size	<75 µm	400	5.09[a]	8.33[a]	418	14.7	16.1	343	2.56	1.72
	<106 µm	61	4.47	8.8	61	12.9	15.1	49	1.87	1.26
Slurry TSS	7.33 g/L	66	5.07[a]	7.44[a]	84	17.6	24.9	73	3.04	2.47
	7.60 g/L	26	5.04[b]	12.3	26	19.4	24.8	22	1.73	1.23
	13.2 g/L	334	5.09	8.51	334	14.1	14.1	270	2.43	1.44
	14.5 g/L	35	4.04[b]	5.08	35	9.6	6.75	27	1.98	1.31

a Excluding Test #1, unflocculated material, b <106 µm slurry tests

Table A-8
TSS and Turbidity for Treatments

Treatment	Level	TSS			Turbidity		
		N	Mean (mg/L)	St. Dev.	N	Mean (NTU)	St. Dev.
Polymer	0	1	1550	.	1	1094	.
	0.0184 mg/g	3	335.6	378.7	3	234.2	247.7
	0.0382 mg/g	2	60.3	26.9	2	44.2	20.2
	0.0408 mg/g	16	71.4	37.6	16	45.9	20.3
Fabric	10 cfs	20	111.5	159.8	20	74.8	107.3
	30 cfs	2	795.6	1066.9	2	562	752.4
Grain Size	<75 µm	19	148.1	341.3	19	100.9	241.3
	<106 µm	3	335.6	378.7	3	234.2	247.7
Slurry TSS	7.33 g/L	3	556.8	860.3	3	394.1	606.3
	7.60 g/L	1	104.1[a]	.	1	83.2	.
	13.2 g/L	16	71.4	37.6	16	45.9	20.3
	14.5 g/L	2	451.4[a]	454.4	2	309.7	297.5

a <106 µm slurry

The relationship of TSS to turbidity can be useful for environmental monitoring of TSS in process discharges. TSS was correlated to turbidity for the combined sediments. The relationship may vary somewhat from that depicted in Figure A-10 for the individual sediments, but given their similarity, these results are expected to be reasonably representative.

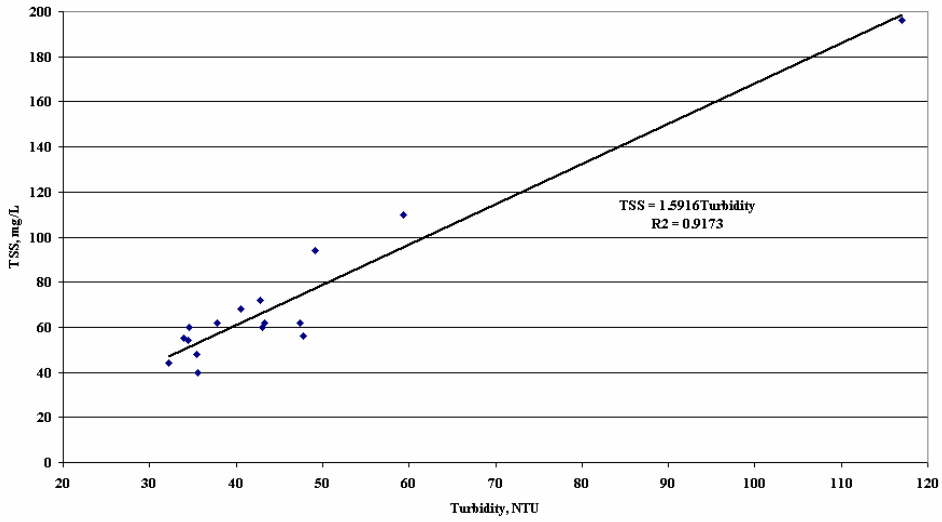

Figure A-10
Filtrate TSS versus Turbidity for Combined Sediment

Dissolved contaminant concentrations were below detection in the filtrate for all PCBs, pesticides and silver (Table A-5). Total silver concentration was non-detect in one filtrate sample and approximately twice the detection limit of 0.001 mg/l in the other sample. Mean total silver concentration in the filtrate (assuming a concentration of 1/10 the DL for the non-detect sample) is 0.0012 mg/l (1.2 ug/l), which is below the federal marine acute water quality standard of 1.9 ug/l for dissolved silver. No numerical criteria were available for TOC, DOC and oil and grease for sediment or surface water.

Cake Percent Moisture/Percent Solids. All cakes tested (5 of 22) passed the paint filter test (Figure A-11). Percent solids ranged from 56 percent to 78 percent; with a mean of 69 percent for all 22 dewatering tests, and a mean of 69.5 percent for the 16 replicate tests. Percent moisture ranged from 22 percent to 44 percent; with a mean of 30 percent for all 22 dewatering tests and for the 16 replicate tests. Mean percent moisture and percent solids are listed by treatment in Table A-9. Variation in percent moisture and percent solids with time and pressure are illustrated in Figures A-12 and A-13. No clear trends in percent solids are evident for time and pressure variables and neither variable was significant in simple linear regression against percent solids for the replicate tests. Effects interactions overall could not be evaluated using ANOVA due to the unbalanced nature of the testing design and the number of missing values resulting in the matrix. Also, effects due to slurry TSS and time are interdependent, because slurry volumes were higher for more dilute slurries thus increasing the amount of time required to filter the slurry. Although variation in percent solids for different values of the independent variables (Table A-9) do not appear to be large enough to be of practical

significance, a balanced matrix would be helpful in subsequent testing to further evaluate optimum operating conditions. The results obtained in this testing could be used to refine a factorial test to address specific questions of operational significance.

Figure A-11
Paint Filter Test of Dewatered Cake

Table A-9
Mean Percent Moisture and Percent Solids by Treatment

Treatment	Level	Percent Moisture			Cake Solids	
		N	Mean (%)	St. Dev.	Mean (%)	St. Dev.
Polymer	0 mg/g	3	32.5	2.89	66.9	2.87
	0.0184 mg/g	9	29.5	2.52	70	2.55
	0.0382 mg/g	6	32.1	2.46	67.4	2.47
	0.0408 mg/g	48	29.9	5.29	69.5	5.33
Fabric	10 cfs	60	29.9	4.82	69.6	4.86
	30 cfs	6	33	2.54	66.4	2.54
Grain Size	<75 µm	57	30.3	5	69.2	5.04
	<106 µm	9	29.5	2.52	70	2.55
Slurry TSS	7.33 g/L	9	32.2	2.43	67.2	2.43
	7.60 g/L	3	31.4[a]	2.4	68	2.42
	13.2 g/L	48	29.9	5.29	69.6	5.33
	14.5 g/L	6	28.6[a]	2.14	70.9	2.17

a <106 µm slurry

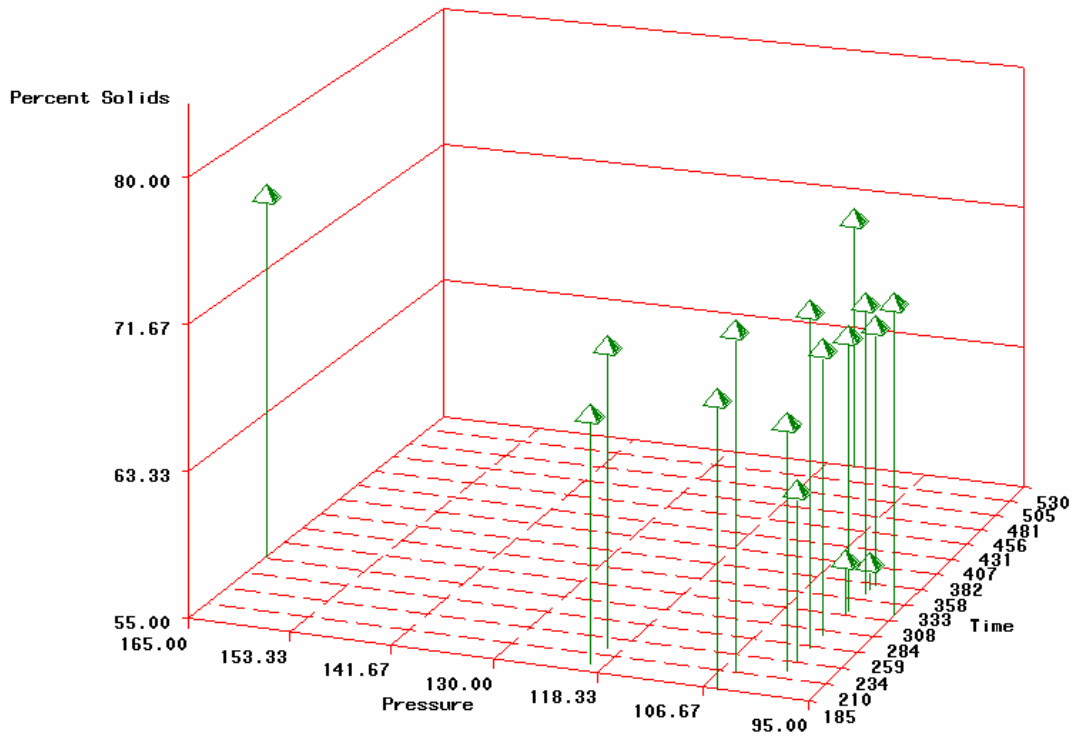

Figure A-12
Filter Cake Percent Solids by Pressure and Time

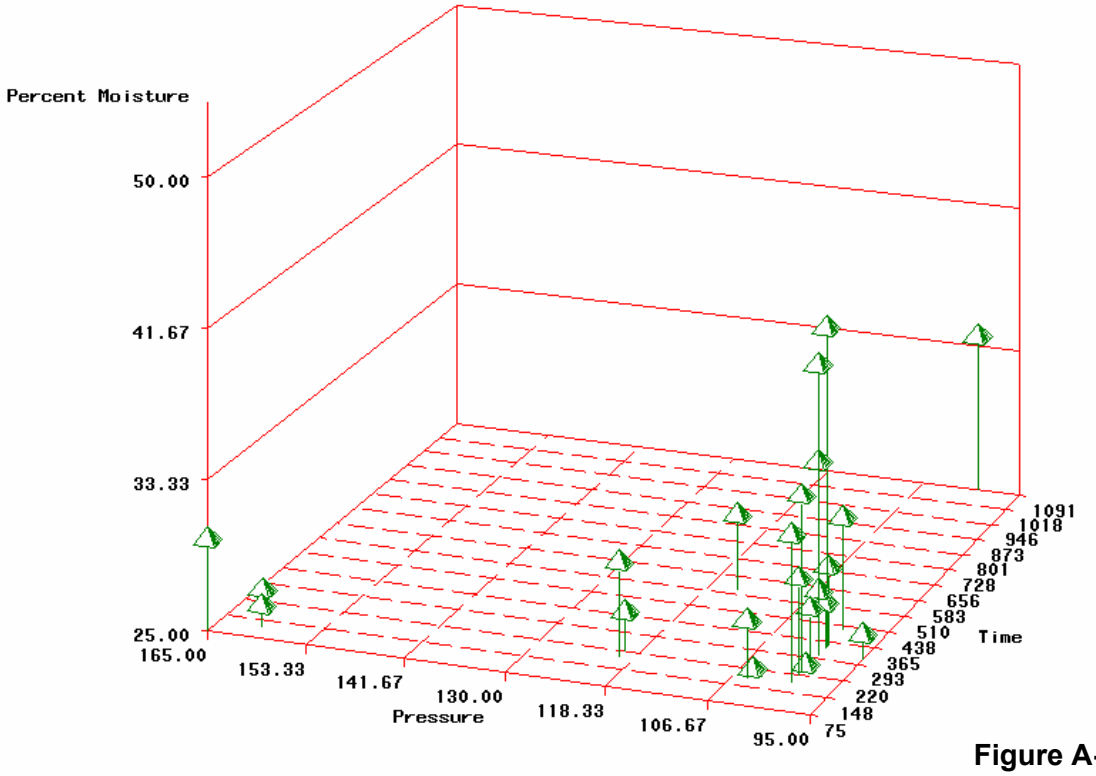

Figure A-13
Filter Cake Percent Moisture by Pressure and Time

Cycle Time - Total cycle time for Tests 7 through 22 (the replicate tests) ranged from 185 min to 530 min. There appeared to be no correspondence between operating pressure (the only variable that was not well controlled for the replicate tests) and cycle time. Cycle time over all tests was longer for more dilute slurries due to the higher volume of slurry required to produce enough solids to fill the press chamber.

DISCUSSION AND ANALYSIS

Fractionation and grain size analysis of the sediment indicates that two size separations will be required in order to recover the sand fraction. The oversize material (>4.75 mm) consists largely of leaf litter, shell fragments and other debris, which can likely be removed successfully with a scalping screen. There was no gravel present in the sample sediments. Hydrocyclones have been proposed for separation of the undersize material (<75 μm), although alternative processes may also be considered.

For these sediments, on the basis of the laboratory testing, there is not a clear distribution of contaminant between fine and coarse materials. Concentrations of some contaminants in the sediment could be problematic to beneficial use of the materials. Total Aroclor concentrations in the bulk sediment, sand and cake all exceeded the ER-L, but were below the ER-M. PPDDT concentrations were non-detect in the bulk sediment and fractions, but the detection limit exceeded the ER-L slightly, so a definitive determination with respect to the ER-L cannot be made on the basis of this data. Detection limits for PPDDT were below the ER-M, however, indicating that sediment concentrations are also below the ER-M. Concentrations of the metabolites PPDDD and PPDDE were above the ER-L but below the ER-M in bulk sediment and fractions. Silver concentrations were below the ER-L in all sediment fractions.

As phases with high affinity for organic contaminants, TOC, soot and oil and grease distribution typically correspond to contaminant distribution, although this is difficult to demonstrate statistically with a small number of samples. TOC and soot concentrations were comparable in the sand fraction and in the dewatered cake, which may partially explain the contaminant distribution. Oil and grease was slightly higher in the sand than in the cake, but this may be an artifact of the wet sieving process, where free oil and grease floating on the water may have settled onto the sand fraction rather than passing through the sieve. In hydrocyclone separation, free oil and grease would be expected to report to the overflow with the fine sediments and low-density materials. Coarse but light organic materials, such as the leaf litter present in the sand fraction, may also report in greater proportion to the overflow. The sand

fraction produced by the hydrocyclone separation therefore has the potential to be less contaminated than the sand fraction obtained by wet sieving. In this case, however, some fines remained in the sand fraction, which likely contributed to the contaminant loading in the sand fraction and which may also be fairly representative of the particle distribution that would be obtained with a hydrocyclone. Any reduction in contaminant concentrations in the sand that would be obtained with a cyclone would then come primarily from a greater proportion of the oil and grease and light organic materials reporting with the fines. (A wet screen, on the other hand, would not be expected to be a good equipment choice for the primary sand separation as the coarse organic materials, and possibly also the oil and grease, would report with the sand in much the same manner as in the bench scale wet sieving.)

Hydrocyclones do not produce a sharp cut, instead producing a distribution of particle sizes around the specified cut size. A percentage of the fine material (the percentage decreasing with decreasing particle size) will report with the sand in the underflow. Similarly, a percentage of the sand (the percentage decreasing with increasing particle size), will report with the fines in the overflow. The relative proportions of fines reporting with the sand, for example, will be determined by the size of the hydrocyclone, the configuration and the operating conditions. More dilute slurries facilitate more complete separation in the hydrocyclone. Larger cyclones (typically >12 in nominal diameter) are most suitable to achieve a cut size at or above 75 μm. Various modifications to the cyclone construction, such as the maximum density separator (Granat 1998) are available to improve the efficiency of separation and may best be evaluated in pilot testing. Hydrocyclones can be installed in parallel, providing a high degree of flexibility with respect to capacity. Both slurry pumps and hydrocyclones will require abrasion resistant construction if used as the principal sand separation step.

The dewatered (fine) residuals volume (V_{Tf}) can be calculated based on initial in-situ bulk sediment volume (V_{ti}), and measurable properties of the materials before and after separation and dewatering. The relationship is given by the following expression (Olin-Estes et al 2002):

Where:

$$V_{T_f} = bV_{T_i}$$

And:

$$b = \frac{(1+w_f)\left[(1-x_m)M_{S_i} + M_{F_i}\right]\rho_{t_i}}{(1+w_i)(M_{S_i} + M_{F_i})\rho_{t_f}}$$

b = volume reduction factor
ρ_{ti} = total or wet density, in-situ or initial
ρ_{tf} = total or wet density, final
w_i and w_f = water content, as a decimal
M_{Si} = mass sand, in-situ or initial
M_{Fi} = mass fines, in-situ or initial
x_m = sand removal efficiency

The relative volumes of sand and dewatered cake produced for varying efficiencies of sand recovery are illustrated in Figure A-14. The values obtained are based on the assumption that total (wet) density and water content measured in the cake composed of < 75μm particles are representative of cake containing increasing proportions of sand particles. Some variation of density and final water content would be expected for different cake composition, but available data was too limited to extrapolate values. A 10% reduction in final water content results in a 3% reduction in final residuals volume (assuming a saturated cake). A 20% reduction in water content results in an 8% reduction in final residuals volume. Assuming the measured water content and wet density of the fine cake would not vary by more than 10% from the values obtained here, the estimated residuals volumes should be reasonably representative for planning purposes. A void ratio of 0.9 was assumed in calculating final volume for the separated sand fraction.

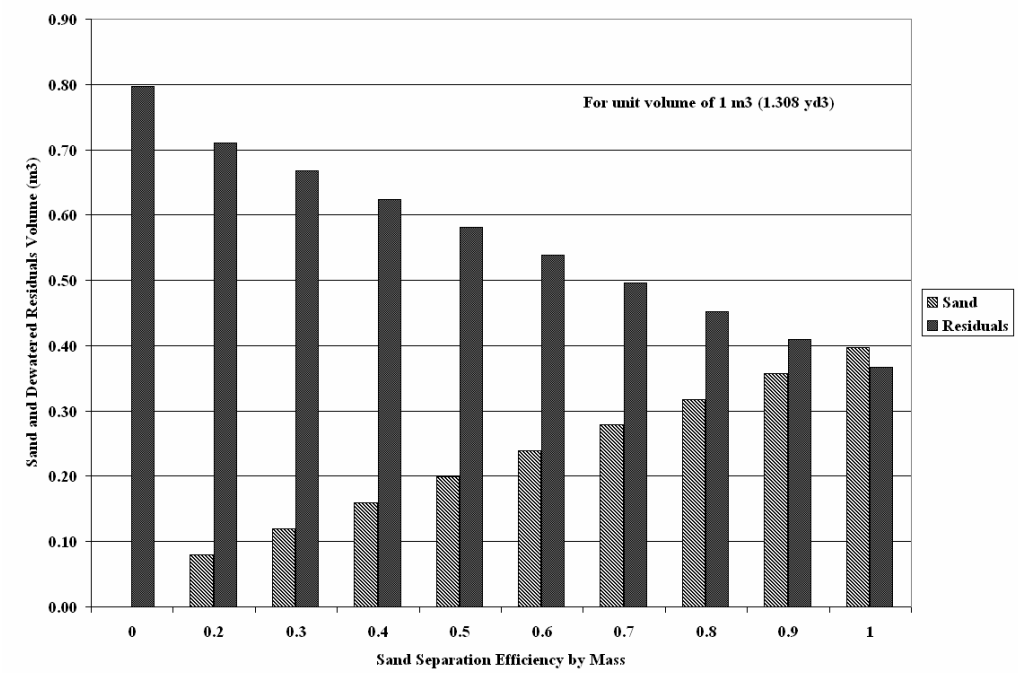

Figure A-14
Relative Volumes of Sand and Dewatered Residuals as a Function of Sand Separation Efficiency (with efficiency defined as the fraction of sand present in bulk sediment that reports to the sand fraction)

Given the similarity of contaminant concentrations in sand and fine fractions as produced by wet sieving, inclusion of a small percentage of fines in the sand would not be expected to increase contaminant concentrations significantly with the exception of silver, which was an order of magnitude higher in the cake than in the sand. Distribution of silver for different proportions of sand and fines is illustrated in Figure A-15. Values in Figure A-15 were obtained by assuming all of the sand and a specified portion of the fines were combined, or that all of the fines and a specified portion of the sand were combined. In actual processing, each process stream will contain both fines and sand, with one or the other in greater proportions. Cyclone underflow (operationally defined sand fraction) might contain as much as 10-20% fines by weight. Similarly, the overflow might contain a similar proportion of sand. The values in Figure A-15 then illustrate the trends expected with varying proportions of either fraction. Concentrations for the sand fraction containing a representative range of percent fines (for hydrocyclone separation) are illustrated Figure A-16.

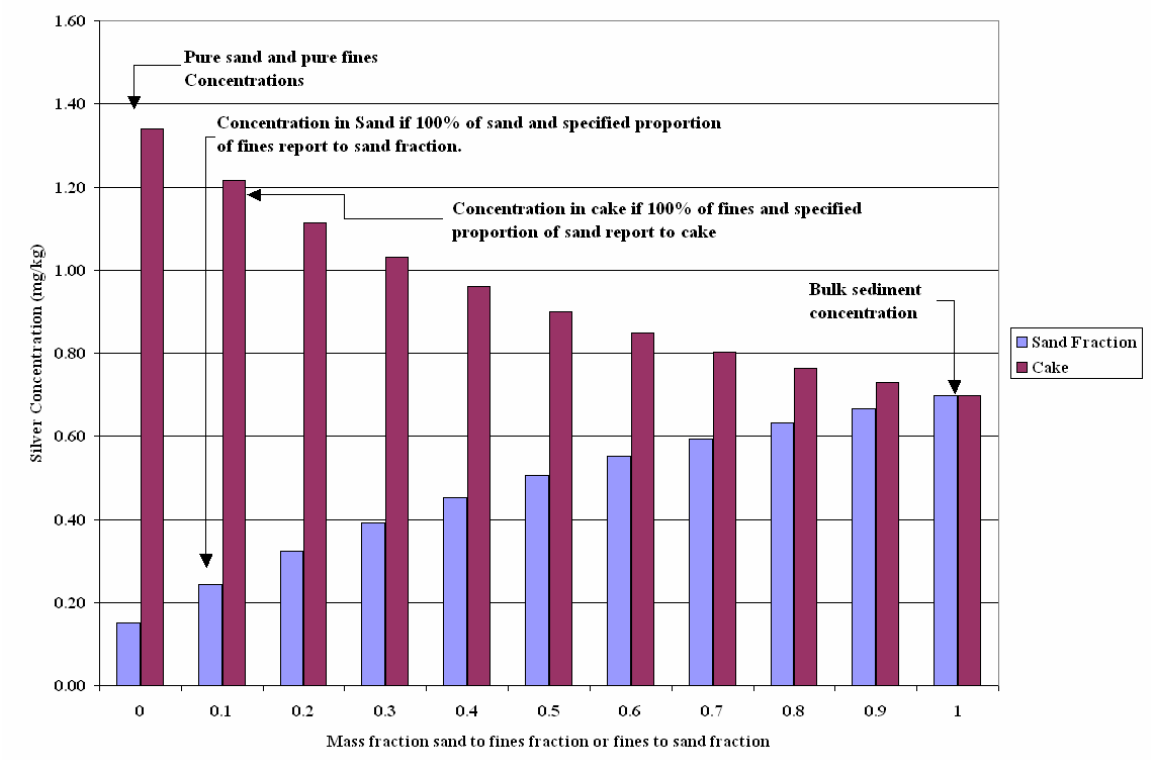

Figure A-15
Silver Concentration in Sand and Cake as a Function of Relative Sand/Fine Composition

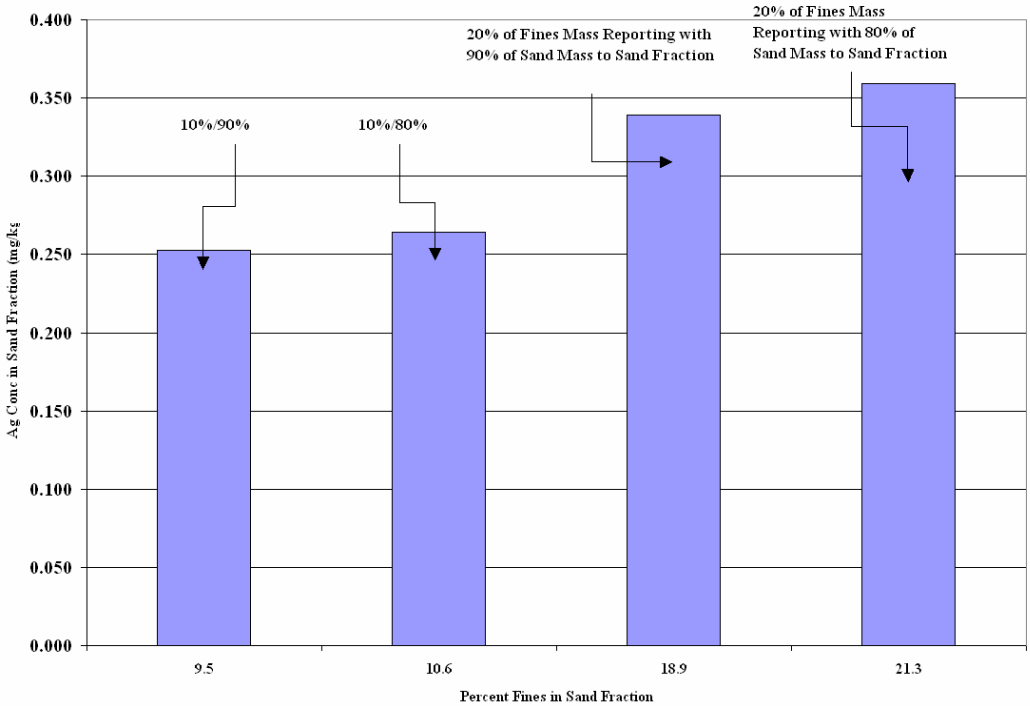

Figure A-16
Ag Concentration in Sand Fraction for Representative Percent Fines in Sand

Flocculent addition did appear to improve sediment dewaterability, as measured by volume of free draining fluid released in gravity filtration tests, and filtrate quality as reflected by turbidity and TSS. One coagulant (MF368) was clearly superior to the others tested with respect to volume filtrate recovered by gravity, and was second only to MF10 with respect to filtrate turbidity. The difference in free draining volume obtained at the optimum dose of MF368 (0.128 mg/g) compared to that obtained with a dose of 0.038 mg/g (which was optimum for turbidity), was relatively small (about 14%). Given that nearly equivalent volume was obtained for all tests once pressure was applied (although different times were required to complete filtration), the higher dosage of MF368 did not appear to be justified. The lower dosage of MF368 also produced the highest steady state flow rates in the press. Because chemical conditioning can be relatively expensive, utilization of a lower dose could result in substantial cost savings.

In the press, percent moisture of the cake was fairly uniform for all flocculants and dosages tested. Additionally, once a cake was formed, flow rate was fairly comparable for both fabrics tested and both grain size distributions, with or without flocculent. Flocculent addition did reduce initial filtrate SS over that obtained for the unflocculated test, and for tests using coarse filter fabric. As for filtration rate, however, once the cake was formed, SS appeared to be almost equivalent. Filtrate recycling through the press would be a viable alternative to chemical conditioning for reduction of high initial filtrate SS levels. If filtrate were to be used for offloading of mechanically dredged materials, this would be an integral part of the process, and

would not increase the volume of water being processed through the press (which would otherwise increase cycle times and possibly offset any cost savings realized by eliminating chemical conditioning). Processing of more dilute slurry has a similar effect, requiring more fluid to be pumped through the press, increasing cycle times. Pre-thickening the cyclone overflow slurry would therefore be desirable and would help to minimize variation in the solids content of the press feed.

Cake quality was relatively uniform for all tests, regardless of cycle time, chemical conditioning, pressure variations, and slurry grain size and percent solids. Trends with respect to longer processing time and higher pressure were not clear, although there was some indication that very high pressure and very long treatment times may produce cake with higher percent solids. The practical value of the incremental improvement in cake quality is likely to be offset, however, by increased operating costs and cycle times. Optimization focused on measures to reduce cycle time is likely to be most beneficial. Pre-thickening feed to minimize filtrate volume and flocculent addition to produce a low SS filtrate would reduce cycle times and minimize water treatment costs. Mean final water content for the replicate dewatering tests was 43.5 percent, which results in an estimated .41 m^3 dewatered residuals volume per m^3 in-situ sediment processed. Variation in dewatered residuals volume with varying final water content (assuming saturated cake) is illustrated in Figure A-17. (Figure A-17 assumes a representative 92 percent of fines reporting to the fine fraction along with 15 percent of the sand by weight.)

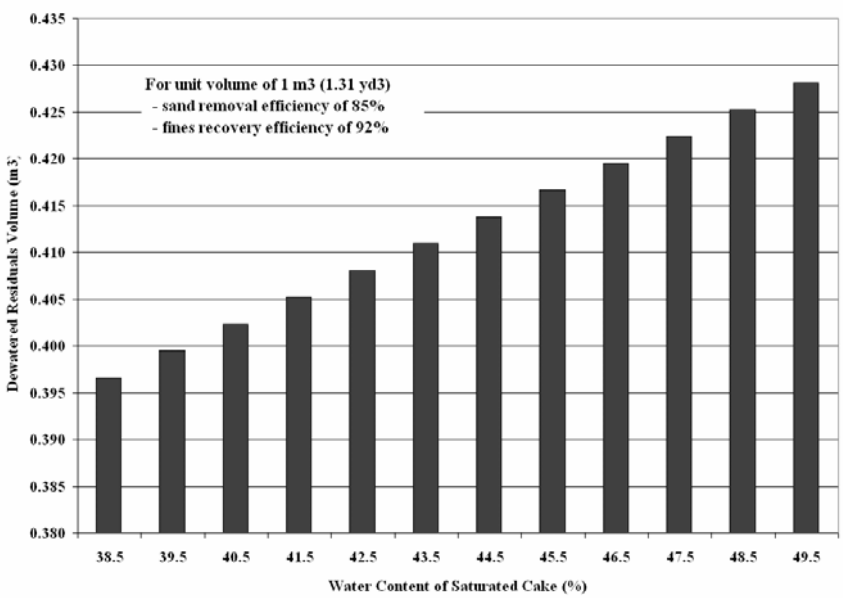

Figure A-17
Dewatered Residuals Volume Variation for 10 Percent Variation in Final Water Content
(for a unit volume of sediment and fixed sand separation efficiency)

Filtration Theory

Based on the bench testing with the filter press, the compressibility and characteristic flow resistance were evaluated using the filtration equations given by Tenney (1972):

$$\frac{dV}{dt} = \frac{PA^2}{\mu(rcV + R_m A)} \tag{1}$$

Where:

V	= volume of filtrate (cm^3)
t	= time (s)
P	= vacuum, (g/cm^2)
A	= filtration area (cm^2)
μ	= filtrate viscosity (poise)
r	= specific resistance of the cake (s^2/g)
c	= weight of solids per unit volume filtrate (g/cm^3)
R_m	= initial resistance of filter media (s^2/cm^2)

Rearranging gives:

$$\frac{t}{V} = \left(\frac{\mu rc}{2PA^2}\right)V + \frac{\mu R_m}{PA} \tag{2}$$

Plotting t/V versus V one can solve for specific resistance:

$$r = \left(\frac{2PA^2}{\mu c}\right)b \tag{3}$$

Where b is the slope of the t/V versus V plot (Equation 2).

Plots of t/V versus V for all of the duplicate dewatering tests (tests 7-22) were generated, giving a mean specific resistance value of 6.51E08 s^2/g based on the mean slope of 0.046 s/cm^6 for the tests and mean values for the other parameters: P = 7581.4 g/cm^2 (107.81 lb/in^2), A = 40.53 cm^2 (two times the individual plate areas), μ = 0.01072 poise, c = 0.163 g/cm^3 (c was calculated using initial and final moisture content of slurry and cake, respectively, according to the relationship given in Equation 19-4, in Tenney (1972). The specific resistance was used in calculating a loading factor, from which filter area can be estimated. The loading factor (L) is given by Tenney (1972) as:

$$L = 35.7\left[\frac{cP^{(1-s)}}{\mu t_c R_1}\right]^{1/2} \qquad (5)$$

Where

t_c = total cycle time (min)
R_1 = mean specific cake resistance ($r \times 10^{-7}$)
s = cake compressibility (unitless)
P = pressure (psi)
L = loading factor (lb/ft^2 hr)
μ = filtrate viscosity (centipoises)
c = weight solids per unit volume filtrate (g/cm^3)

To calculate L, characteristic values are needed for compressibility (s) and for cycle time (t_c). For compressible cakes, the average specific cake resistance is time dependent, increasing as the cake becomes progressively more consolidated. Because the variation in pressure between tests for the current study was very limited, it was not possible to determine the compressibility of the material with a high degree of certainty. Typical values for cake compressibility (s) range from 0.1-0.8. The organic content of the sediment was low (4.6% by weight in the fine fraction) suggesting that the sediment should not be highly compressible. However, the relationship of flow to pressure for the study sediments was consistent with behavior associated with compressible sediments (flow rate did not increase with increasing pressure). A range of loading factors were therefore calculated to assess the impact of this factor.

Cycle termination (the point at which filtrate flow diminished to 2ml/min) was difficult to determine given the long duration of some of the tests and the low flow rates. A representative time at which 95% of the total filtrate volume had been passed was obtained from regression on plots of filtrate volume versus time for the replicated dewatering tests. The representative cycle time was calculated from the fitted equation (best fit was obtained for either a logarithmic or power function) resulting in cycle times ranging from 2.2 to 12.7 hours. A loading factor was then calculated for each test, assuming the following values for the remainder of the parameters:

R = 1.24 s^2/g
c = 0.163 g/cm^3
P = 7581.4 g/cm^2 (107.8 psi)
t_c = 300 min (5 hours)
μ = 1.072 centipoises
s = 0.1 – 0.8

For the given range of s, the mean loading factor ranges from 0.850 kg/m^{2}hr to 4.38 kg/m^{2}hr (0.174 lb/ft^{2}hr to 0.897 lb/ft^2 hr). The filter area needed was then estimated based on daily dredge production. The production rate for a 6" dredge is approximately 0.148 m^3/s (5.24 ft^3/s). For the given grain size distribution, assuming 20 hours/day operation of the dredge, 1.02E06 kg of fine solids would be produced daily. For the given range of loading rates, filter area required would range from approximately 1.26E4 m^2 to 6.47E4 m^2 (1.36E05 ft^2 to 6.96E5 ft^2), increasing exponentially with increase in compressibility (Figure A-18). Given the importance of this factor, this approach requires considerable certainty regarding the compressibility of the sediment. In addition, these values seem unreasonably high when compared to an intuitive analysis of the filtration volume required based on the daily solids production, the wet bulk density of the cake, the daily dredging and dewatering periods, cycle time and press volume. These relationships are obtained directly from the test results, and are independent of the compressibility factor, which is accounted for implicitly in the filter loading obtained. The number of filters required for a 24 hour dewatering operation supporting a 6-in dredge was estimated for different daily dredging periods, assuming 5.78 cycles could be completed in 24 hours of operation (based on mean cycle time for batch testing), 6.2 m^3 (219 ft^3) cake capacity per press, and 0.865 kg/m^3 (0.054 lb/ft^3) wet cake density (based on mean value for batch testing). The total number of presses required ranges from 6 to 29, for a 4 to 20 hour dredging period per day, respectively. Plant capacity required for other dredging periods is given in Table A-10. No factor of safety was applied to these values, but a factor of safety as high as 25% is recommended in Perry et al (1984).

Table A-10
Press Capacity versus Dredging Period[1]

Dredge Operation hrs/day	Total Press Volume m^3 (ft^3)	No. Presses
20	184.5 (6516)	29
18	158.5 (5595)	26
16	140.8 (4973)	23
14	123.2 (4351)	20
12	105.6 (3730)	17
10	88.1 (3108)	15
8	70.4 (2486)	12
6	52.8 (1865)	9
4	35.2 (1243)	6

[1]6-in dredge, 0.095 m^3/s (3.34 ft^3/s) fine slurry dredge discharge, 6.2 m^3 (219 ft^3) cake capacity per press, 24 hour dewatering operation, 5.78 dewatering cycles/24 hours

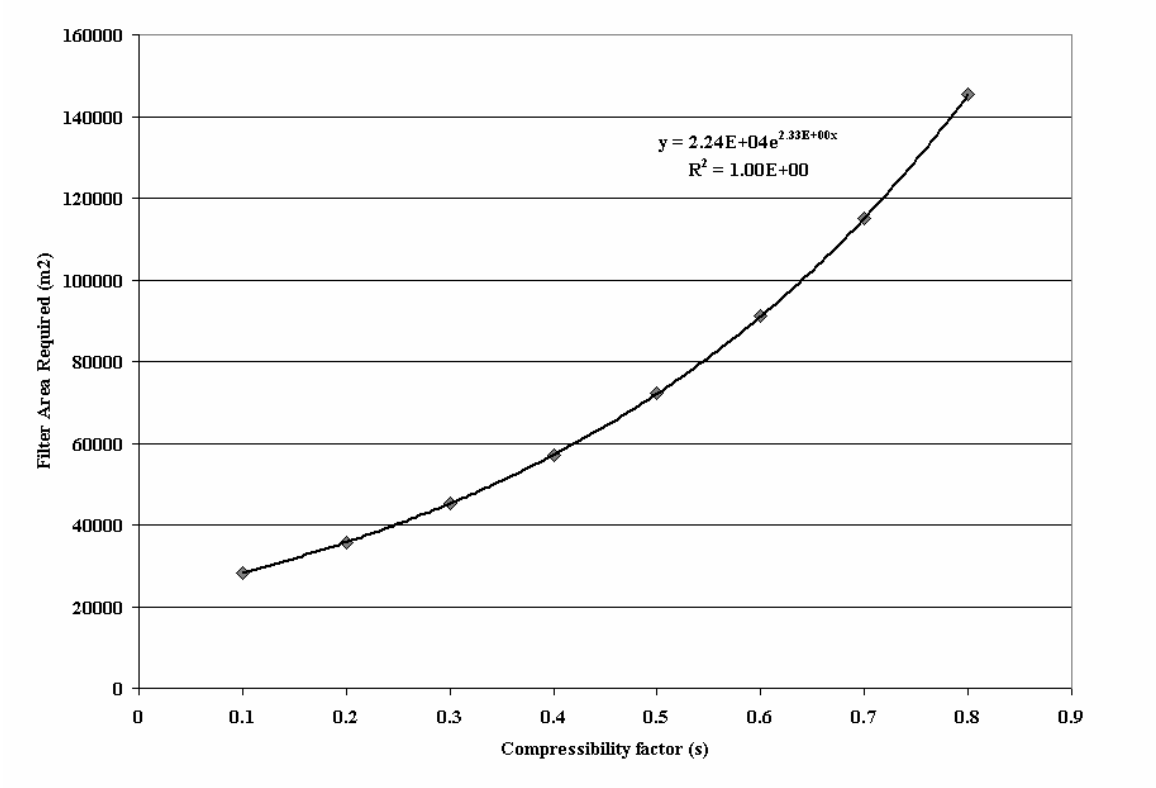

Figure A-18
Filter Area Required Versus Compressibility Factor(s)

The optimum cycle time is another factor deserving further evaluation. The most efficient filtrate production occurs over the first part of the cycle, while the most efficient solids capture occurs after a cake has accumulated and flow rates have diminished. There may be a transition point at which the flow rate clearly diminishes to the point that continued operation is not efficient. If it exists, this transition point can be identified in plots of flow rate versus filtrate volume. There was no clear transition point in plots for the study sediments. An alternative approach was therefore taken, in which the optimum cycle time was estimated based on solids flow rate. It was apparent from the measured dry mass of solids reporting to the cake relative to the corresponding filtrate volume that some settling of solids occurred in the system upstream of the filter, in effect reducing the feed slurry concentration. Taking the effective feed solids concentration to be equal to the mass solids on the filter divided by the total filtrate volume (having a mean value 93 g/L), and using the measured filtrate flow to calculate a solids flow rate, the majority of the solids were delivered in a period ranging from as little as 3 hrs to about 6 hrs (Figure A-19). Based on the regression line from all the filtration data, 95% of the solids were delivered in about 4.6 hrs. Continued operation after this point appears to add little to the cake mass. This reduces the number of presses required, based on the previously stated assumptions, to a minimum of 5 and maximum of 26 presses.

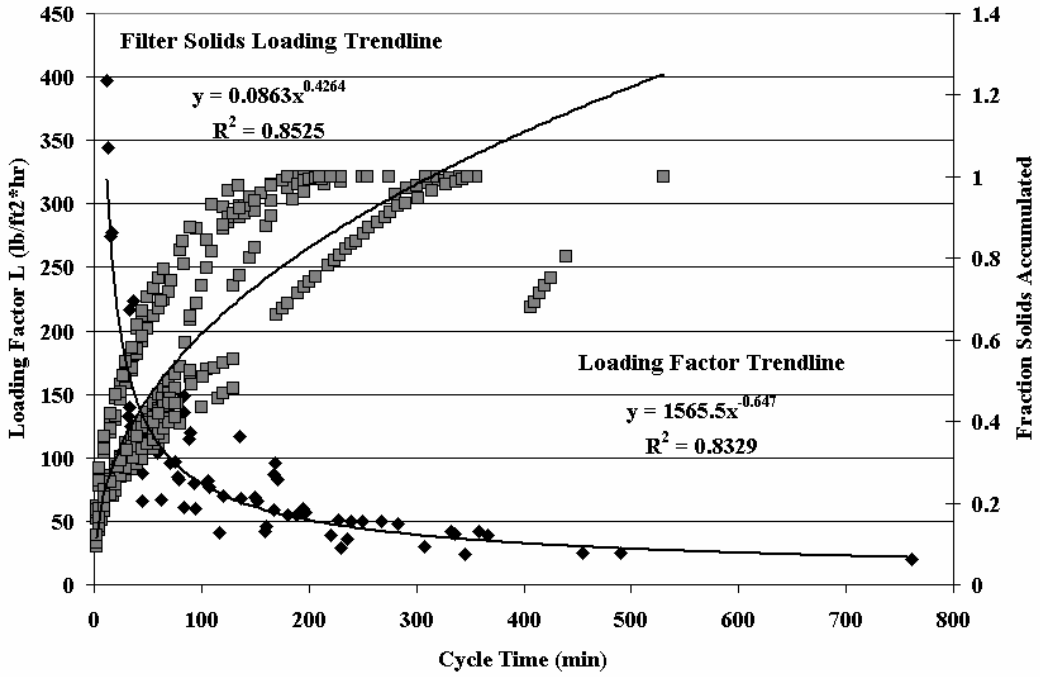

Figure A-19
Filter Solids Loading Versus Time

One of the difficulties of scaling up from the bench scale results, however, is that the operating regimes may differ significantly. In a full scale system using positive displacement pumps and a constant flow regime, feed to the press would be expected to be consistent over the entire cycle. Longer cycle times would presumably correlate to higher solids in the cake, and cycle termination would be determined when a maximum acceptable pressure drop across the system was reached. For a variable feed, variable pressure system fed with centrifugal pumps, the regime would be more similar to the bench testing, and the diminishing rate of solids transfer would need to be taken into consideration in determining optimum cycle time. Ultimately, while bench scale testing is useful in defining parameter ranges and assessing overall feasibility, pilot scale testing is probably a requirement in order to assess the effect of parameter variations in a more representative operating regime. For the study sediments, based on the bench scale testing, we can conclude that the press volume required to dewater the sediment with a plate and frame press is sufficiently high that the dredging operation would be constrained to a small dredge operating for limited periods each day.

Conclusions

Optimizing the separation and dewatering process requires clear definition of the processing objectives and the parameters that will be used to gauge success. Where off-site disposal of dewatered material is a requirement, as in this case, minimizing volume and weight of the cake is desirable in order to minimize transportation costs and tipping fees. Potential cost benefits must be weighed against costs incurred to minimize water content and cake volume in order to attain lowest overall project costs. Highest efficiency is not always least cost overall when all factors are taken into consideration. Because dewaterability did not appear to be strongly improved by inclusion of sand in the cake, and the incremental mass reporting to the cake was relatively large for this sediment due to the amount of sand in the fine sand fraction, sand inclusion should be considered as incidental to the process, but not a processing objective. It is possible that an additional screening step between the cyclone and the filter press would be desirable to recover fine sands reporting with the overflow, in order to further minimize cake volume and weight.

Processing trade-offs are expected to be more critical when different dewatering processes are being compared. For plate and frame dewatering, differences in volume and cake for a reasonable variation in operating parameters do not appear to be large enough to capitalize upon, with the exception of removing as much sand as possible before the dewatering step.

One aspect of treatment that is clearly related to the economics of the process is cycle time. The longer the cycle time required to achieve dewatering objectives, the larger the dewatering plant must be in order to accommodate a given dredge production rate. It is also apparent that the more dilute the slurry is, the larger the volume of water that must be processed by the system and the greater the volume of water requiring management and possibly treatment prior to discharge. Thickening of the influent slurry prior to the dewatering step would appear to be beneficial in reducing hydraulic loading and cycle time. Cycle times varied considerably and were relatively long for these sediments. This was partly a function of the testing protocol, which required operating the press until filtrate flow fell below a prescribed level. Because some solids settled out in the system, solids flow rate appears to have been lower than that calculated from the initial slurry concentration. In practice, depending upon the system configuration, and assuming consistent slurry solids concentration in the feed, somewhat shorter cycle times should be attainable.

Based on the cycle times required for the bench scale testing, multiple presses would be required at full scale to accommodate the discharge from even a small (6-inch) dredge. In

addition, dredge operation would likely have to be intermittent, while the dewatering operation would need to be continuous. Filter volume requirements for a larger dredge would appear to be completely infeasible.

Concentrations of several contaminants in the bulk sediment and fractions fell between the ER-L and ER-M, including Total Aroclors, PPDDD and PPDDE. With the exception of silver (Ag), contaminant concentrations were not substantially reduced in the sand as compared to the fine residuals. Silver was below the ER-L in all sediment fractions. Improved separation of coarse organic materials and oil and grease might reduce sand concentrations further, but this would have to be confirmed with more extensive and definitive bench scale testing or representative full scale separation equipment.

Contaminant concentrations in filtrate were below detection for PCBs, pesticides and dissolved silver, although the detection limit for Total Aroclors, PPDDT and Total DDT were above the federal marine chronic criteria so no definitive conclusions can be drawn. Total silver was approximately twice the detection limit in one filtrate sample and non-detect in the other. The resulting mean concentration is still below the federal water quality criteria for dissolved silver indicating there should be no exceedances of this criteria. TSS and turbidity in filtrate from unflocculated sediments was 5 to 25 times higher than in filtrate from flocculated tests. This is largely attributable to solids losses early in the dewatering cycle, and could likely be addressed by recycle of affected filtrate. In the absence of numerical criteria for TSS and turbidity, receiving water quality would in part determine acceptability of filtrate for discharge with respect to these two parameters.

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APPENDIX B
HYDROCYCLONE SAND SEPARATION LABORATORY BENCH-SCALE STUDY

Hydrocyclone Sand Separation Laboratory Bench-Scale Study (Tri-Flo International)

Objective

To test the efficiency of using a hydrocyclone unit to separate the sand and fine-grained sediment fractions from representative contaminated dredge material as a means of recovering a beneficial use product (sand) and minimizing disposal volumes (fines).

Background

The Los Angeles District Corps of Engineers is interested in identifying methods for treating contaminated sediments generated during federal maintenance dredging projects within the Los Angeles Basin. One method under consideration is the concept of sand separation as a mechanism for reducing contaminant concentrations and producing a reusable by-product (clean sand) for regional beach nourishment. This laboratory bench-scale study was conducted to gather data to assist in evaluating the feasibility of this approach for use in a regional contaminated dredge material treatment facility.

The concept for this treatment approach lies in the assumption that most contaminants are tightly bound to the fine-grained and organic fractions of the sediment and not strongly associated with the courser sand fractions. Therefore, if a mechanical process where available to effectively separate the course sand fraction from the fine-grained and organic material, it should be possible to concentrate the contaminants into a de-watered, fine-grained cake for disposal and produce "clean" water and sand as re-useable by-products.

One commercially available method for mechanically separating the sand from the fine-grained fractions is to use a hydrocyclone. Hydrocyclones are large conical shaped devices that produce a vortex of the sediment slurry which allows the heavier sand fractions to migrate to the outside of the cone and drop out in the underflow while the less dense, finer-grained fractions are carried to the center of the cone and flow out the top as the overflow. This fine-grained slurry (overflow) can then be transferred to a second piece of equipment (e.g., belt press) and dewatered to produce a dry cake with the wastewater either being reused for additional dredge slurry or discharged back to the sample location.

Test Material

Contaminated test sediments were collected from two locations in Southern California (the Los Angeles River Estuary (LARE) in Long Beach and the Rhine Channel in Newport Bay) using

conventional field coring methods. Both samples were representative of typical Corps dredging areas and both are known to contain elevated concentrations of metals, PAHs, pesticides, and PCBs, which precludes them from being disposed of at an unconfined ocean disposal site. Approximately 8 gallons of sediment were collected from the Rhine Channel location and approximately 5 gallons were collected from the LARE location.

Sand Separation Test Equipment

This bench-scale study was conducted at the offices of Tri-Flo International, Inc located in Willis, Texas using a 4" hydrocyclone unit capable of 30 GPM flow and producing a cut size of 30-35 micron sand particles (Figures B-1 and B-2).

Figure B-1
Tri-Flo International 4" Mobile Hydrocyclone Unit

Figure B-2
Tri-Flow International View of 4" Hydrocyclones

Study Design

The intended study design for the laboratory bench-scale study included the following steps for each sediment sample:

1. Homogenize sediment sample in collection bucket(s) to achieve a uniform sample, removing large pieces of debris in the process.
2. Prepare seawater diluent using artificial sea salts to a salinity of 28-30 ppt.
3. Mix sediment and seawater in large plastic mixing tanks or trash cans to achieve a 10-20% solids suspension.
4. Feed sediment slurry into hydrocyclone – output will be dewatered sand and fine-grained slurry.
5. Collect sample of sand and slurry for chemical and physical analyses.
6. Allow remaining slurry to settle and then filter using a 0.45 micron in-line filter to produce a filtered water sample for dissolved chemical analysis.
7. Prepare and package all samples for shipping

This process is illustrated graphically below in Figure B-3, and the targeted samples are summarized in Table B-1.

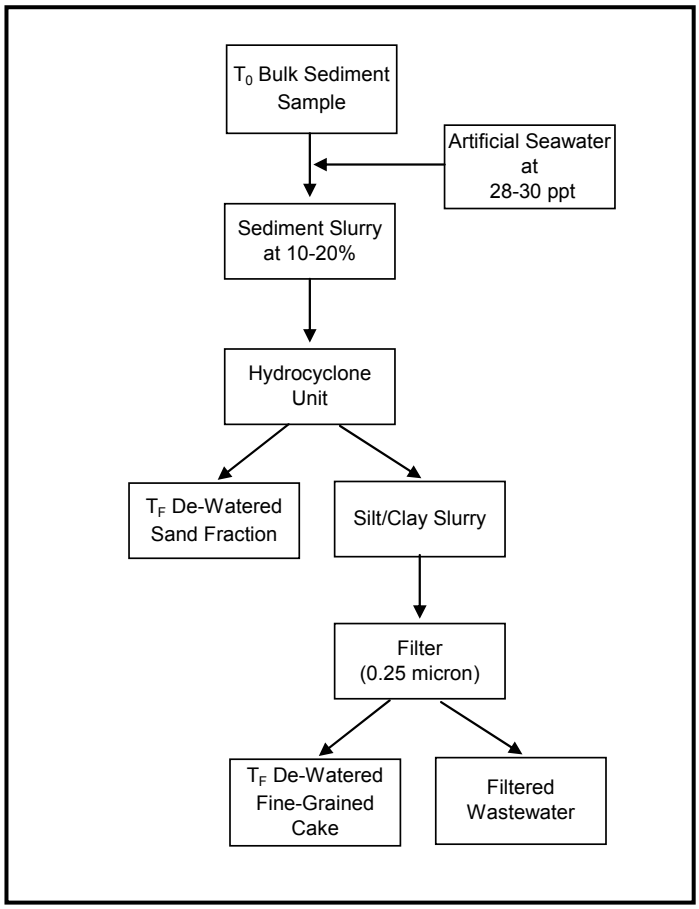


Figure B-3
Hydrocyclone Bench-Scale Study Process Diagram

Table B-1
Target Chemical and Physical Analyses

Sample	Chemical Analyses	Physical Analyses
T_0 Bulk Sediment Sample	Metals, PAHs, PCBs and Pesticides (1/site = 2 total)	Grain Size, %Solids (1/site = 2 total)
T_F De-watered Sand Fraction	Metals, PAHs, PCBs and Pesticides (1/site = 2 total)	Grain Size, %Solids (1/site = 2 total)
T_F Dewatered Fine-Grained Solids	Metals, PAHs, PCBs and Pesticides (1/site = 2 total)	Grain Size, %Solids (1/site = 2 total)
Filtered Wastewater	Metals, PAHs, PCBs and Pesticides (1/site = 2 total)	DOC (1/site = 2 total)

Totals = 6 sediment samples for chemical and physical analyses
= 2 water samples for chemical analyses and DOC

Study Results

Due to time constraints at the test facility, only one sample was ultimately exposed to the hydrocyclone system. Although it contained a lower sand fraction, the Rhine Channel sample was selected for use because it had a much higher, and robust, contaminant load.

Contaminants present included metals, PAHs, pesticides and PCBs; all at concentrations above typical aquatic screening level threshold values.

A total of two 5-gallon buckets of material were collected from the Rhine Channel. One sample was collected from an area with very high metal and organic concentrations (Station 16) and another from an area with similar metal, but lower organic chemical concentrations. The material from both buckets were homogenized together and then diluted with 176 gallons of synthetic seawater to a salinity of 28-30 ppt. Unfortunately, the "bulk sediment" sample collected to represent the starting material concentrations was inadvertently collected from the bucket containing the samples with the lower organic chemical concentrations and not from the homogenized mixture. The effects of this event are discussed later in this report.

After processing, samples were collected from the washed sand ("Rhine Sand") and the fine-grained slurry was placed into a HDPE bucket for settling. Visually, the sand material was dry and free of organic material (Figure B-4). The fine-grained slurry passing through the 4" hydrocyclone was allowed to settle for approximately two hours, at which time the overlying water was siphoned off and passed through a 0.45 micro pre-washed filter directly into a sample collection bottle ("Rhine Decant"). The remaining sediment in the bucket (fine-grained fraction, termed "Rhine Cake") was then collected for chemical analysis. All samples were packed on wet ice and shipped via overnight courier to CRG Laboratories in Torrance, CA for testing. Test results are presented in Tables B-2, B-3, and B-4.

Figure B-4
Sand Material Passing Through the 4" Hydrocyclone

Table B-2 Tri-Flo International Laboratory Bench-Scale Pilot Study - Metals Results

Sample Description	Bulk Rhine					Rhine Sand				Bulk	Bulk	Rhine Cake		Rhine Decant			
Date Sampled	2/24/2005					2/24/2005				Rhine	Station 16	2/24/2005		2/24/2005			
Time Sampled	10:00			Avg	Bulk Data	10:00			Avg	Conc.	Conc.	12:00		12:00		EPA AWQC	
Replicate#	R1	R2	RR-1	Conc	Station 16	R1	R2	RR-1	Conc	Reduc.	Reduc. *	R1	R2	R1	R2	CCC	CMC
Units	µg/dry g	µg/dry g	µg/dry g	µg/dry g	µg/dry g	µg/dry g	µg/dry g	µg/dry g	µg/dry g	(%)	(%)	µg/dry g	µg/dry g	µg/L	µg/L	µg/L	µg/L
Antimony (Sb)	0.51	0.64	***	0.57	1.69	1.07	4.24	***	2.65	-362%	-57%	1.50	1.51	3.61	3.59	---	---
Arsenic (As)	8.55	8.51	***	8.53	11.4	4.18	4.31	***	4.24	50%	63%	14.40	17.70	8.99	8.69	36	69
Barium (Ba)	83.00	83.70	***	83.35	131	40.70	58.10	***	49.40	41%	62%	158.00	209.00	NA	NA	---	---
Beryllium (Be)	0.67	0.65	***	0.66	0.67	0.15	0.15	***	0.15	77%	78%	1.29	1.63	<0.005	<0.005	---	---
Cadmium (Cd)	0.51	0.52	***	0.51	1.11	0.58	1.06	***	0.82	-59%	26%	5.46	6.73	0.438	0.435	9.3	42
Chromium (Cr)	32.70	32.40	***	32.55	3.08	8.27	13.90	***	11.09	66%	-260%	68.60	85.60	0.74	0.76	50	1100
Cobalt (Co)	7.34	7.19	***	7.27	6.03	2.16	2.36	***	2.26	69%	63%	12.40	15.10	0.281	0.276	---	---
Copper (Cu)	176.00	133.00	***	154.50	229	50.70	50.80	***	50.75	67%	78%	281.00	340.00	0.243	0.239	3.1	4.8
Iron (Fe)	27000	27000	***	27000	36400	8650	9190	***	8920	67%	75%	49500	58500	5.75	5.86	---	---
Lead (Pb)	58.50	86.10	***	72.30	93	26.30	67.50	***	46.90	35%	50%	114.00	134.00	1.09	1.09	8.1	210
Manganese (Mn)	266	249	***	257.50	224	120	125	***	123	52%	45%	386	482	63.3	63.5	---	---
Mercury (Hg)	3.08	3.23	***	3.16	4.81	1.51	1.43	***	1.47	53%	69%	7.50	8.89	<0.005	<0.005	0.94	1.8
Molybdenum (Mo)	1.49	1.66	***	1.57	2.22	0.64	0.71	***	0.67	57%	70%	2.83	3.38	13.5	13.8	---	---
Nickel (Ni)	25.00	17.90	***	21.45	15	4.42	4.70	***	4.56	79%	70%	31.30	39.20	0.863	0.852	8.2	74
Selenium (Se)	0.66	0.58	***	0.62	1.1	0.23	0.20	***	0.22	65%	80%	1.30	1.62	0.282	0.277	71	290
Silver (Ag)	0.04	0.33	***	0.19	0.104	<0.025	<0.025	***	<0.025	--	--	0.15	0.36	<0.005	<0.005	---	0.95
Strontium (Sr)	59.60	59.10	***	59.35	59.5	52.50	47.40	***	49.95	16%	16%	118.00	135.00	NA	NA	---	---
Thallium (Tl)	0.28	0.29	***	0.28	0.388	0.10	0.12	***	0.11	61%	72%	0.50	0.61	<0.005	<0.005	---	---
Tin (Sn)	6.76	10.70	***	8.73	11.7	3.15	3.87	***	3.51	60%	70%	10.80	13.10	0.295	0.296	---	---
Titanium (Ti)	1540	1690	***	1615.00	1550	855	941	***	898.00	44%	42%	2430	2950	3.35	3.9	---	---
Vanadium (V)	69	67	***	67.75	70.2	18	20	***	18.95	72%	73%	129	155	40.9	40.9	---	---
Zinc (Zn)	131.0	125.0	***	128.00	189	69.2	86.2	***	77.70	39%	59%	324.0	388.0	5.96	5.8	81	90

Units	Percent	Percent			Percent	Percent				Percent	Percent	Percent	Percent
Percent Solids	54.9	***	***		82.2	***	***			27	***	***	***

* = % reduction calculated using only data for Station 16 from the Rhine Channel as opposed to an average of all data used in the study.

*** = data not available

Table B-3 Tri-Flo International Laboratory Bench-Scale Pilot Study - PCB Results

Sample Description	Bulk Rhine					Rhine Sand				Bulk	Bulk	Rhine Cake		Rhine Decant	
Date Sampled	2/24/2005					2/24/2005				Rhine	Station 16	2/24/2005		2/24/2005	
Time Sampled	10:00			Avg	Bulk Data	10:00			Avg	Conc.	Conc.	12:00		12:00	
Replicate#	R1	R2	RR-1	Conc	Station 16	R1	R2	RR-1	Conc	Reduc.	Reduc. *	R1	R2	R1	R2
Units	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	(%)	(%)	ng/dry g	ng/dry g	ng/L	ng/L
Aroclor 1016	<10	***	<10	<10	20 U	<10	<10	<10	<10	---	---	<10	***	<10	***
Aroclor 1221	<10	***	<10	<10	20 U	<10	<10	<10	<10	---	---	<10	***	<10	***
Aroclor 1232	<10	***	<10	<10	20 U	<10	<10	<10	<10	---	---	<10	***	<10	***
Aroclor 1242	<10	***	<10	<10	20 U	<10	37	<10	37	---	---	<10	***	<10	***
Aroclor 1248	<10	***	<10	<10	20 U	<10	<10	<10	<10	---	---	<10	***	<10	***
Aroclor 1254	12.8	***	35.1	23.95	244	32.5	36.1	41.8	36.8	-54%	85%	23.3	***	<10	***
Aroclor 1260	<10	***	<10	<10	20 U	<10	<10	<10	<10	---	---	<10	***	<10	***
PCB018	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB028	<1	***	<1	<1	5 U	<1	1.7	<1	1.7	---	---	<1	***	<1	***
PCB031	<1	***	<1	<1	5 U	<1	2.5	<1	2.5	---	---	<1	***	<1	***
PCB033	<1	***	<1	<1	5 U	<1	1.8	<1	1.8	---	---	<1	***	<1	***
PCB037	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB044	<1	***	<1	<1	11.6	2.1	<1	<1	2.1	---	82%	<1	***	<1	***
PCB049	<1	***	<1	<1	22.3	2.9	3.2	2.1	2.73	---	88%	<1	***	<1	***
PCB052	<1	***	<1	<1	25.9	4.1	4.4	4.4	4.30	---	83%	<1	***	<1	***
PCB066	1.9	***	<1	1.9	33.1	4.1	4.9	3.7	4.23	-123%	87%	4.7	***	<1	***
PCB070	<1	***	<1	<1	21.6	3.6	3.4	2.6	3.20	---	85%	3.6	***	<1	***
PCB074	<1	***	<1	<1	11.5	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB077	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB081	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB087	<1	***	<1	<1	9.9	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB095	1.4	***	2.1	1.75	17	2.8	2.8	2.1	2.57	-47%	85%	2.9	***	<1	***
PCB097	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB099	1.6	***	2.3	1.95	17.6	2	3.2	2.8	2.67	-37%	85%	<1	***	<1	***
PCB101	3.2	***	3.9	3.55	30.7	5.6	5.3	5.2	5.37	-51%	83%	4.1	***	<1	***
PCB105	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB110	1.6	***	4.3	2.95	29.9	4	4.4	5.1	4.50	-53%	85%	2.9	***	<1	***
PCB114	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB118	<1	***	<1	<1	28.1	3.1	4	3	3.37	---	88%	<1	***	<1	***
PCB119	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB123	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB126	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB128+167	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB138	<1	***	4	4	9.9	<1	4	3	3.50	13%	65%	<1	***	<1	***
PCB141	<1	***	<1	<1	17.1	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB149	1.4	***	2.3	1.85	5 U	2.7	3.5	2.2	2.80	-51%	---	3.5	***	<1	***
PCB151	<1	***	<1	<1	20.2	1.1	1.1	<1	1.10	---	95%	<1	***	<1	***
PCB153	1.8	***	3.2	2.5	8.2	3	3.6	3.8	3.47	-39%	---	4.4	***	<1	***

Table B-3 Tri-Flo International Laboratory Bench-Scale Pilot Study - PCB Results

Sample Description	**Bulk Rhine**					**Rhine Sand**				Bulk	Bulk	**Rhine Cake**		**Rhine Decant**	
Date Sampled	2/24/2005					2/24/2005				Rhine	Station 16	2/24/2005		2/24/2005	
Time Sampled	10:00			**Avg**	**Bulk Data**	10:00			**Avg**	Conc.	Conc.	12:00		12:00	
Replicate#	R1	R2	RR-1	**Conc**	**Station 16**	R1	R2	RR-1	**Conc**	Reduc.	Reduc. *	R1	R2	R1	R2
Units	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	(%)	(%)	ng/dry g	ng/dry g	ng/L	ng/L
PCB156	<1	***	<1	<1	18.9	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB157	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB158	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB168+132	<1	***	<1	<1	5 U	<1	1.5	<1	1.50	---	---	<1	***	<1	***
PCB169	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB170	<1	***	<1	<1	18.5	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB177	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB180	<1	***	<1	<1	17.7	2.5	2.2	<1	2.35	---	87%	<1	***	<1	***
PCB183	<1	***	<1	<1	5 U	<1	1.2	<1	1.20	---	---	<1	***	<1	***
PCB187	<1	***	<1	<1	12.1	1.7	2.6	1.1	1.80	---	85%	<1	***	<1	***
PCB189	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB194	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB200	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB201	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
PCB206	<1	***	<1	<1	5 U	<1	<1	<1	<1	---	---	<1	***	<1	***
Total Detectable PCBs	12.9	***	22.1	17.5	382	45.3	61.3	41.1	49.23	-181%	87%	26.1	***	<1	***

* = % reduction calculated using only data for Station 16 from the Rhine Channel as opposed to an average of all data used in the study.

*** = data not available

Table B-4 Tri-Flo International Laboratory Bench-Scale Pilot Study - Pesticide/Organics Results

Sample Description	Bulk Rhine					Rhine Sand				Bulk	Bulk	Rhine Cake		Rhine Decant	
Date Sampled	2/24/2005					2/24/2005				Rhine	Station 16	2/24/2005		2/24/2005	
Time Sampled	10:00			Avg	Bulk Data	10:00			Avg	Conc.	Conc.	12:00		12:00	
Replicate#	R1	R2	RR-1	Conc	Station 16	R1	R2	RR-1	Conc	Reduc.	Reduc. *	R1	R2	R1	R2
Units	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	ng/dry g	(%)	(%)	ng/dry g	ng/dry g	ng/L	ng/L
2,4'-DDD	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
2,4'-DDE	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
2,4'-DDT	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
4,4'-DDD	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
4,4'-DDE	<1	***	<1	<1	68.1	9.9	4.1	<1	7.00	---	90%	<1	***	<1	***
4,4'-DDT	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Aldrin	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
BHC-alpha	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
BHC-beta	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
BHC-delta	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
BHC-gamma	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Chlordane-alpha	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Chlordane-gamma	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Dieldrin	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Endosulfan Sulfate	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Endosulfan-I	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Endosulfan-II	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Endrin	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Endrin Aldehyde	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Heptachlor	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Heptachlor Epoxide	<1	***	<1	<1	<5	<1	<1	<1	<1	---	---	<1	***	<1	***
Toxaphene	<1	***	<1	<1	<50	<1	<1	<1	<1	---	---	<1	***	<1	***
Acenaphthene	1.4	***	1.8	1.6	6.7	5.6	5.8	10	7.13	-346%	-6%	6.4	***	<1	***
Acenaphthylene	3.7	***	3.3	3.5	16.4	21.9	13.3	20.4	18.53	-430%	-13%	14.5	***	<1	***
Anthracene	7.2	***	7.5	7.35	53	38.5	25.6	109	57.70	-685%	-9%	22.3	***	<1	***
Benz[a]anthracene	26.5	***	26	26.25	274	168	153	937	419.33	-1497%	-53%	55.2	***	<1	***
Benzo[a]pyrene	76.8	***	78.7	77.75	1200	455	285	1150	630.00	-710%	48%	180	***	<1	***
Benzo[b]fluoranthene	55.6	***	61.1	58.35	857	417	273	545	411.67	-606%	52%	144	***	<1	***
Benzo[g,h,i]perylene	57.2	***	65.3	61.25	427	231	153	396	260.00	-324%	39%	117	***	<1	***
Benzo[k]fluoranthene	67.3	***	84.5	75.9	603	411	289	744	481.33	-534%	20%	157	***	<1	***
Chrysene	35.9	***	39.5	37.7	307	255	256	953	488.00	-1194%	-59%	91.7	***	<1	***
Dibenz[a,h]anthracene	10.7	***	8	9.35	101	73.6	45.5	87	68.70	-635%	32%	25.8	***	<1	***
Fluoranthene	49.2	***	54.6	51.9	340	364	380	1450	731.33	-1309%	-115%	112	***	<1	***
Fluorene	1.5	***	1	1.25	7.4	7.5	6.5	9.7	7.90	-532%	-7%	13.9	***	<1	***
Indeno[1,2,3-c,d]pyrene	53.5	***	54.7	54.1	512	270	175	435	293.33	-442%	43%	110	***	<1	***
Naphthalene	2.4	***	4.9	3.65	11.2	6.2	13.5	9.1	9.60	-163%	14%	173	***	20.3	***
Phenanthrene	15.7	***	16	15.85	104	131	84.5	105	106.83	-574%	-3%	53.4	***	<1	***
Pyrene	58.3	***	67	62.65	425	390	392	2580	1120.67	-1689%	-164%	162	***	<1	***

* = % reduction calculated using only data for Station 16 from the Rhine Channel as opposed to an average of all data used in the study.

*** = data not available

Table B-2 presents the results of the metals analyses conducted on the bulk sediment, sand fraction, decant water and dewatered fine-grained cake. Overall, the process was quite effective in reducing bulk sediment metal concentrations. With the exception of cadmium, nearly all metals were reduced by up to 80% of their initial concentration. To account for the errors in collecting the bulk sediment sample prior to treatment mentioned above, both the average bulk concentration (average of three replicates) and the data solely for Station 16 are presented in the tables to show the range of reductions that may have occurred. Because the metal concentrations at the two Rhine Channel collection points were very similar, both comparisons show similar results.

Results from the process water showed that the metals were concentrated in the fine-grained cake and that partitioning into the dissolved phase of the overlying water did not occur as these values were all very low (using EPA's chronic marine ambient water quality criteria as a reference point).

Bulk sediment pesticide and PCB concentrations between the two Rhine Channel source samples were quite different, with the results for Station 16 being one or more orders of magnitude higher then other station. This caused the evaluation of chemical reduction (see Tables B-3 and B-4) to actually show erroneous negative values suggesting that concentrations increased following treatment. However, when evaluating the data against the bulk sediment concentrations for Station 16 by itself, the tables show significant reductions for almost all organic contaminants. Most notably were the PCBs which were reduced by 82 percent to 95 percent after treatment.

APPENDIX C
HYDROCYCLONE SAND SEPARATION FIELD PILOT STUDY

Hydrocyclone Sand Separation Field Pilot Study
(Tri-Flo International)

Objective

The purpose of this field pilot study was to validate the results of the laboratory bench scale hydrocyclone sand separation study (Appendix B) using full-scale, commercially available, equipment outfitted with larger cone sizes for larger sand fraction recovery.

Background

The Los Angeles District Corps of Engineers (USACE) is interested in identifying methods for treating contaminated sediments generated during federal maintenance dredging projects within the Los Angeles Basin. One method under consideration is the concept of sand separation as a mechanism for reducing contaminant concentrations and producing a reusable by-product (clean sand) for regional beach nourishment. A laboratory bench-scale study was conducted to gather data to assist in evaluating the feasibility of this approach for use in a regional contaminated dredge material treatment facility (Appendix B). The results of that bench scale study showed that the approach was effective in reducing contaminant concentrations for both metals and organics, but it needed to be field tested. The current study was designed to meet that need.

The concept for this treatment approach lies in the assumption that most contaminants are tightly bound to the fine-grained and organic fractions of the sediment and not strongly associated with the courser sand fractions. Therefore, if a mechanical process where available to effectively separate the course sand fraction from the fine-grained and organic material, it should be possible to concentrate the contaminants into a de-watered, fine-grained cake for disposal and produce “clean” water and sand as re-useable by-products.

One commercially available method for mechanically separating the sand from the fine-grained fractions is to use a hydrocyclone. Hydrocyclones are large conical shaped devices that produce a vortex of the sediment slurry which allows the heavier sand fractions to migrate to the outside of the cone and drop out in the underflow while the less dense, finer-grained fractions are carried to the center of the cone and flow out the top as the overflow. This fine-grained slurry

(overflow) can then be transferred to a second piece of equipment (e.g., belt press) and dewatered to produce a dry cake with the wastewater either being reused for additional dredge slurry or discharged back to the sample location. A preliminary bench-scale study was conducted to test the technology using a 4-inch hydrocyclone to produce a sand cut size of approximately 35 microns. While substantial reductions in contaminant concentrations were achieved for this size fraction, the goal of the technology is to produce beach compatible material which typically has larger grain sizes than 35 microns.

Since larger cut sizes using hydrocyclones are achieved by using a larger cone size in the system, a field pilot study was initiated to use a 10-inch cone capable of producing a cut at approximately 75 microns which would be more representative for beach nourishment. This technical appendix presents the results of that full-scale field pilot study.

Test Material

The test material for the field pilot study was sediment dredged in June 2005 from the mouth of the Los Angeles River, just upstream of the Queensway Bridge, as part of an emergency dredging effort to restore navigation depths to the entrance channel for the Catalina Cruises Ferry Terminal. Approximately 800 cubic yards of sediment were dredged by Manson Construction using a clamshell bucket and placed onto a flat deck barge containing "K" rails to prevent the material from sloughing off back into the water. Bulk sediment chemistry for the dredge material is presented in Table C-1, and shows elevated concentrations for both metals and organics. Two sources of bulk sediment chemistry data are available: (1) results from the pre-dredge characterization which are labeled as "Area 1-2 top and bottom", and (2) results from samples collected after stockpiling it on the flat deck barge just prior to processing. These latter samples were collected from two areas of the barge, one area contained sediment with a high sand content and one area contained sediment with high silt/clay content. This was done to provide a range of potential analytical results as the LARE area is typically variable with respect to grain size and chemical composition.

Study Design & Equipment

Due to some logistical constraints related to obtaining access to a suitable upland location for conducting the pilot study, the actual program was conducted entirely on barges anchored at the mouth of the Los Angeles River near the entrance to the Shoreline Marina. The treatment

design for the study is presented schematically in Figure C-1 and the barge layout is shown in Figure C-2. The treatment process included the following key steps:

- Prepare dredge material slurry using bulk sediment and site water to a target suspension of 10-15% solids;
- Pass the material through a scalper (shaker) screen to remove trash and debris;
- Pass the remaining material through a 10" hydrocyclone to remove all material above 75 microns;
- Pass the remaining material through a bank of 4" hydrocyclones to remove the material between 35 and 75 microns;
- Transfer the residual slurry to settling tanks to allow some of the remaining particulates to drop out; and
- Reroute settled slurry water back to slurry tank to mix with new bulk material or allow continuing settling and then decanting clarified water back to dredge site.
- Dispose all trash and woody debris from the scalper screen, along with residual solids from the settling tanks, at landfill or suitable port disposal area.

Figures C-3 through C-10 contains photographs of the actual test equipment and barge layout. The City of Long Beach paid for the sediment dredging and the USACE funded the actual costs of the field study and analytical testing program. Field equipment used for this study was provided by the following:

- Manson Construction – prime contractor and project management, derrick barge, field crew, generator, slurry tank, Baker tanks and settling tanks
- Tri-Flo International – hydrocyclones, pumps, and field crew
- Connolly Pacific – flat deck barges

Sand Separation Test Results

Chemical results for the bulk sediment and processed sand are summarized, by day, in Table C-1 and presented graphically in Figures C-11 through C-18. Sample designations include "debris" for the organic matter and trash removed by the scalper; "CS" for course sand which consists of the cut material produced by the 10" hydrocyclone; and "FS" for the fine sand cut from the 4" hydrocyclones. Table C-2 presents a log of all sediment samples collected during the study, along with a description of any treatment process modifications made prior to or after sample collection.

Figure C-11 presents the inorganic results of six metals (mercury, copper, lead, cadmium, zinc and nickel) measured in mg/kg. Three samples are labeled as Bulk (Bulk Weight), CS (Coarse Sand), and FS (Fine Sand). Four samples were taken for the bulk weight, with the dark purple bar denoting the average concentration and six samples were taken for both the CS and FS over the 4 day duration of processing. Overall, CS and FS samples showed decreasing trends in inorganic concentrations from the bulk material suggesting that the process was effective in reducing metal concentrations.

For mercury, bulk sediment concentrations ranged from 0.01 to 0.17 mg/kg and averaged 0.09 mg/kg. With the exception of one CS sample, all post processed samples showed significant reductions after passing through the hydrocyclones. The CS samples were lower than the FS samples suggesting that some carry-over was occurring at a partical size fraction between 35 and 75 microns, the cut sizes for the 4" and 10" hydrocyclones, respectively. Simialr results were observed for copper, lead, cadmium, nickel, and zinc. Occasional post-processed samples produced concentrations above that observed for the bulk samples which suggest variable concentrations and equipment efficiencies. In all cases, however, CS concentrations were lower than FS concentrations. As with the mercury results, this suggests that some carry-over is occurring between the 35 and 75 micron particle size.

Figure C-12 presents the sand separation organic results for total PAHs, total DDTs, and PCBs measured in ug/kg. As with the inorganics, four samples were collected for bulk material chemistry, which includes a range of values and an average concentration denoted by the dark purple bar. Six separate post-processing samples were collected during the testing period for bot course and fine grained, washed sand indicated in the graphs as CS and FS, respectively. Overall, the hydrocyclone separation process was much more efficient at removing PCB contaminants than was observed with the metals. However, PAHs and DDT showed similar results in that the CS samples were lower than the FS results indicating that some carry-over was also detected.

To evaluate the effectiveness of adding a washing process after the hydrocyclones as a way to increase the efficiency of removing the finer particle containing residual contamination, a series of test were conducted using two approaches. The first approach consisted of simply adding the post processed sand (both CS and FS) to sample jars containing site water and shaking it

vigourously to create a slurry. The material was then allowed to settle and the fine grained material was decanted and discarded. This process was repeated two more times and the remaining "washed" sand was submitted for testing (labeled as "Manual"). The second approach consisted of using a garden hose with a spray nozzle to pump site water over the material (both CS and FS) as it exited the hydrocyclone to help strip fine-grained particles that may have carried over in the process. These post processed samples were also submitted for chemical analyses and labeled as "Mechanical".

Figure C-13 presents the results of the washing experiments. The results for six metals (mercury, copper, lead, cadmium, zinc, and nickel) are presented for both manual and mechanical washing. Bulk sediment concentrations represent test material before entering the hydrocyclones. For the washed material, the blue bars represent the material concentrations after the hydrocyclones but prior to washing and the light purple bars present the post-washing concentrations. As a general trend, both washing approaches resulted in decreased metal concentrations. Overall, mercury had the highest concentration reduction on a percentage basis and the manual washing approach appeared to show a greater reduction than the mechanical wshing approach.

Figure C-14 presents the washing experiment results for total PAHs, total DDT and PCBs. As expected, total PAH, total DDT, and total PCBs concentrations were highest in bulk sediment concentrations, followed by the pre and then the post washing tests for the CS and FS samples. One sample from Mechanical FS exceeded 2000 ug/kg for total PAHs. Overall, PAHs and DDTs showed greater concentration reductions than were observed with the metals. Total PCBs were eliminated after passing through only the hydrocyclones so the washing tests were not needed.

Figure C-15 presents the Total Organic Carbon (TOC) results for the washing experiment. TOC is measured in percentage with nine samples including bulk weight (bulk), coarse sand (7-11 CS, 7-12-CS), coarse sand washed (7-11-CSW, 7-12-CSW), fine sand (7-11-FS, 7-12-FS), fine sand washed (7-11-FSW, 7-12-FSW).

The bulk weight had the highest concentration of the nine samples taken at just above 1.5 percent. The other eight samples had TOC concentrations of less that 0.5 percent.

Chemical concentrations for the sludge material (fines output from the hydrocyclones), after settling in the Baker tanks, are presented in Figure C-16. Four metals (Copper, Lead, Zinc, and Nickel), total PAH, DDTs and PCBs are presented for the bulk, CS, FS, and sludge material for sediments processed on the same day. As expected, sludge samples contained the highest chemical concentrations for both the metals and organics.

To further investigate the results observed during the washing experiments (Figures C-13 through C-15), a subsequent study was conducted to isolate the specific sediment fraction containing the majority of the contaminants. In this test, bulk sediment from the LARE, washed course sand from the 10″ hydrocyclone and washed fine sand from the 4″ hydrocyclones were separated in the laboratory using sieves into three categories (2000-63μ, 63-10μ, and <10μ) and tested for chemical concentrations. Results, presented in Figures C-17 and C-18, clearly show that the majority of sediment contaminants are found in the <10μ clay fraction. Therefore, the addition of washing processes to eliminate this size fraction from the carry-over material would be very beneficial to the overall treatment design.

Process Water Test Results

Process water used for the pilot study was initially collected via submerged pipe from the LARE next to the work barge housing the hydrocyclones. Water was pumped into the slurry tank and combined with the sediment to create a mixture containing approximately 10% solids before transferring it into the scalper unit. After sand removal, the resulting fine-grained sediment slurry was re-circulated back to the mixing tank and reused to mix with additional bulk sediments. This process was repeated until the water became super-saturated with fines at which time it was pumped into settling tanks and new seawater was collected to restart the process. Each batch of water was then allowed to settle until the overlying water was clear before returning it to the LARE (decant only). The settled solids were collected and disposed of at the Port of Los Angeles.

Prior to discharge, the settled water was tested for suspended solids and total recoverable chemical concentrations (metals, PAHs, pesticides and PCBs). Test results were then compared to initial process water chemistry concentrations as well as EPA Ambient Water Quality Criteria (Table C-1) to evaluate for potential water quality impacts and need for further treatment. Analytical results are presented for two test scenarios. One test scenario included collecting the

water immediately after leaving the hydrocyclone (i.e., no settling), and again after filtering through 1 and 50μ bag filters. The second test included allowing the same water as used in test #1 to settle for approximately 15 hours, collecting the overlying water and then passing it through 1 and 50μ bag filters to simulate additional treatment.

Test results showed that the unsettled water (discharge slurry from the hydrocyclones) contained very high particulate loads and chemical concentrations. The bag filters were quickly overloaded and considerable chemicals of concern were able to pass through the filter media and render them ineffective. Allowing the water to settle overnight, however, resulted in a dramatic improvement in water quality. Both suspended solids and chemical concentrations were much lower in the unfiltered water, but still 2 to 3 times higher than the initial water collected from the LARE. Passing the water through the bag filters also resulted in additional improvements. The water passing through the 1μ filter produced water very similar to the site water and significantly below EPA's discharge criteria for instantaneous releases.

These results suggest that simply allowing the water to settle before discharge may be sufficient for water quality compliance. If it is not, adding some form of mechanical filtration system like adding bag filters can be a very effective solution.

Production Rates and Costs:

Production rates for the field pilot study were kept at a minimum because the primary goal for the study was to determine treatment effectiveness and potential for use in a regional treatment facility. Although the Tri-Flo International equipment can include the use of two 10" hydrocyclones, only one was tested for the pilot study. Table C-2 presents a summary of the production rates observed for the pilot study vs. that which the equipment is conservatively capable of producing.

Field pilot study costs were not representative of future test scenarios for this technology because of the following:

- Not all the equipment that was obtained was needed resulting in significant excess mobilization and equipment rental costs; and

- Conducting the project on barges required significant additional effort mobilizing the equipment and transferring the bulk sediment from a storage barge to a work barge (required the use of a derrick barge for the entire study);

Areas for Improvement:

During the hydrocyclone field pilot study, several problem areas were identified for future investigation and/or modification. Most significantly was the inefficiency of the system to handle large debris and trash, and at creating slurry of suitable solids content. The approach used in the pilot study was to dump the bulk sediment into a large mixing tank containing a high velocity re-circulating pump. On top of the tank was a mesh screen to catch the large debris prior to entering the mix tank. The difficulty with this approach was that the bulk sediment did not flow through the screen and had to be manually washed into the slurry tank. A vibrating concrete mixer was later added to provide a vibration source to further help the process. The net result was that slurry solids concentrations were below the target level for optimal use of the hydrocyclone. Future uses of this equipment should include either a hydraulically dredged source and/or a macerator system to grind up the debris as it is mixed with the dilution water.

An additional area for improvement is the inclusion of a wash system to the output screens for the hydrocyclones to further rinse fine-grained material that is not separated in the cones. The material leaving the 10″ hydrocyclone still contained between 4 and 14% silts and clays carried over by the system. To provide an additional washing step, the use of seawater spray rinsing was evaluated and resulted in nearly complete removal of the silts and clays, and subsequently lower contaminant levels (Figures C-13 and C-14).

Table C-1
Long Beach
Summary of Sediment Data

Sample ID	Area 1/2 T	Area 1/2 B	6-23-Fines	6-23-Sands	Average	Average	7-8-D-1	7-8-CS-1	7-8-FS-1	7-8-CS-2	7-8-FS-2	7-9-CS-1	7-9-FS-1	7-9-Sludge	7-11-CS-1	7-11-CSW-1	7-11-FS-1	7-11-FSW-1	7-12-CS-1	7-12-CSW-1	7-12-FS-1	7-12-FSW-1	7-13-CS-1	7-13 FS-1
Sample Date	2/2005	2/2005	6/23/2005	6/23/2005	LARE	LARE	7/8/2005	7/8/2005	7/8/2005	7/8/2005	7/8/2005	7/9/2005	7/9/2005	7/9/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/13/2005	7/13/2005
Sample Matrix	SE	SE	SE	SE	(less sands)	Bulk Conc.	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
% Sand	92.7	71.4	53.2	93.7	72.4	77.7	91.28	98.59	91.69	97.93	86.57	95.24	71.24	30.56	93.84	93.51	88.25	84.17	91.91	99.97	86.98	86.15	85.8	85.92
% Silt	4.0	17.3	40.4	5.8	20.6	16.9	7.81	3.91	7.83	1.91	12.27	4.75	27.23	60.17	5.93	6	10.59	5.82	9.28	0.04	11.62	12.13	12.02	12.29
% Clay	2.9	10.7	6.4	0.1	6.7	5.0	0.92	1.41	0.48	0	1.16	0.03	1.53	9.26	0.24	0.5	1.18	0	1.27	0	1.39	1.73	2.19	1.79
% TOC	0.4	2.9	--	--	--	--	--	--	--	--	--	--	--	--	0.22	0.20	0.18	0.47	0.24	0.08	0.45	0.42	--	--
Metals (mg/kg)																								
Aluminum	--	--	--	--	--	--	3740	650	13300	4710	6500	3610	6230	25500	7820	5600	14300	10300	8500	8300	14000	11700	6870	12000
Antimony	--	--	--	--	--	--	0.05 U	0.05 U	0.05 U	0.37	0.47	0.36	0.45	3.13	0.33	0.31	0.54	0.78	0.37	0.34	0.41	0.4	0.05 U	0.05 U
Arsenic	0.957	4.85	3.12	1.34	2.98	2.57	2.2	1.14	2.08	1.01	1.62	0.93	1.33	10	1.54	0.99	2.42	1.77	1.78	1.44	2.18	2.12	1.1	2.2
Barium	--	--	--	--	--	--	45.3	70.3	163	53.8	92.1	45.8	89.8	214	74.8	49.6	149	110	84	79.2	145	129	65.8	142
Beryllium	--	--	--	--	--	--	0.1	0.13	0.27	0.1	0.14	0.08	0.12	0.61	0.23	0.18	0.41	0.29	0.26	0.25	0.39	0.34	0.15	0.24
Cadmium	0.326	1.54	0.76	0.87	0.88	0.87	0.53	0.23	0.56	0.21	0.38	0.24	0.42	3.49	0.35	0.21	0.54	0.33	0.35	0.39	0.55	0.52	0.31	0.53
Chromium	9.11	34.8	20.4	5.99	21.44	17.58	15.5	13.7	28.4	10.2	16.4	7.78	15	60.9	12.9	10.4	27.2	19.7	14.1	15.6	25.8	22.9	13.3	25.3
Cobalt	--	--	--	--	--	--	3.9	4.27	8.91	3.23	5.17	2.64	4.61	13.5	4.54	3.4	8.6	6.21	4.81	4.79	8.43	7.41	4.17	8.15
Copper	7.53	51.9	32.8	5.35	30.74	24.40	36	14.1	29.2	9.03	20.2	8.55	17.1	112	14.7	7.73	26.1	23.1	14.1	13.9	24.1	25.1	12.9	25.9
Iron	--	--	--	--	--	--	25300	14100	24000	12100	14600	9510	13700	43000	12200	10300	20600	16200	13000	13400	20300	17900	14800	23400
Lead	24.7	71.1	41.6	8.36	45.80	36.44	11.4	19.5	32.9	9.32	20.8	11.2	18.7	126	59.9	10.3	32.5	30.1	16.7	20.6	27.8	29.6	16.3	28.4
Manganese	--	--	--	--	--	--	187	181	372	142	218	116	205	452	169	138	324	248	186	186	318	277	186	349
Mercury	0.017	0.171	0.106	0.0459	0.10	0.08	0.004	0.077	0.051	0.159	0.093	0.039	0.074	0.237	0.058	0.0208	0.0498	0.0305	0.0303	0.0285	0.0783	0.0505	0.04276	0.09663
Molybdenum	--	--	--	--	--	--	3.01	0.84	1.41	0.44	0.97	0.48	0.86	5.51	0.65	0.38	1.35	0.92	0.74	0.68	1.17	1.26	0.68	1.42
Nickel	5.27	22	14.4	5.74	13.89	11.85	15.1	9.99	21.2	6.32	12.2	5.41	10.6	40.3	9.53	6.59	19.5	13.8	13.7	10.4	18.5	17.1	11.7	18.1
Selenium	0.051	0.9	0.56	0.26	0.50	0.44	0.05 U	0.05 U	0.05 U	0.21	0.39	0.19	0.3	2.1	0.25	0.05 U	0.94	0.37	0.72	0.05 U	0.7	0.54	0.05 U	0.05 U
Silver	0.05 U	0.711	0.05 U	0.05 U	0.71	0.71	0.05 U	0.05 U	0.05 U	0.08	0.06	0.09	0.07	0.37	0.05 U	0.05 U	0.05 U	0.05 U	0.51	0.86	0.34	0.67	0.05 U	0.05 U
Strontium	--	--	--	--	--	--	42.3	42.8	91.3	39.9	63.9	32.7	56.9	150	43.6	32.3	81	58.6	45.5	48.9	78.3	55.6	46.2	80.9
Thallium	--	--	--	--	--	--	0.05 J	0.08	0.2	0.06	0.11	0.05 J	0.11	0.39	0.1	0.06	0.19	0.13	0.1	0.1	0.19	0.17	0.08	0.17
Tin	--	--	--	--	--	--	1.85	1.16	2.9	1	1.98	0.89	1.6	9.52	1.26	0.66	2.63	3.1	1.19	1.14	2.37	2.1	1.18	2.33
Titanium	--	--	--	--	--	--	384	1100	2190	873	1200	649	1200	2630	957	734	2040	1550	1070	1050	1840	1670	1100	2230
Vanadium	--	--	--	--	--	--	36.4	31.4	54.5	25.5	31.1	20.7	29.5	111	30.6	25.6	50.8	39.9	33.2	33.9	49.4	44	35.7	54.5
Zinc	41	239	150	32	143	116	68	5390	132	54.2	97	46	77.2	504	60.7	43.5	116	87.5	71.3	65.3	105	102	61.4	116
SVOCs (µg/kg)																								
1,1'-Biphenyl	--	--	--	--	--	--	89.5	3.8 J	10.9	5 U	5 U	5 U	5 U	15.2	1.7 J	5 U	3.2 J	1.7 J	2 J	1.6 J	3.3 J	2.9 J	1.4 J	2.7 J
1-Methylnaphthalene	5 U	6.1	--	--	6.1	6.10	303	7.9	30.1	4.6 J	22.3	4.7 J	11.8	47.8	2.7 J	1.4 J	4.8 J	2.6 J	2.9 J	1.7 J	4.9 J	3.4 J	2.1 J	3.1 J
1-Methylphenanthrene	32.3	19.5	--	--	25.9	25.90	555	53.5	54.3	12.6	71.4	14.9	44.9	21.9	8.8	4.9 J	15.9	8.3	11.9	7.3	23.4	16.9	6.5	11.9
2,3,5-Trimethylnaphthalene	5 U	7.9	--	--	7.9	7.90	386	32.5	28.1	7.5	32.1	7.7	17.3	66.4	2 J	5 U	3.4 J	2.1 J	2 J	1.7 J	4.4 J	3.7 J	2.4 J	4.2 J
2,6-Dimethylnaphthalene	6.4	70	--	--	38.2	38.20	1200	30.3	74.5	10.5	48.8	12.3	27.8	117	4 J	1.7 J	8.1	4.9 J	4.5 J	3.8 J	8.7	7.7	4.4 J	7.2
2-Methylnaphthalene	5 U	10.7	--	--	10.7	10.70	368	13.5	43.3	5 U	25.3	5 U	9.8	63.2	4.3 J	2.3 J	8.7	5.7	6.8	3.6 J	8.4	7.6	4.2 J	6.2
Acenaphthene	5 U	5.4	3.4	5 U	4.4	4.40	74.5	5 J	12.8	2.6 J	23.9	2.7 J	17.4	16.9	2.8 J	1.8 J	5.3	3.3 J	3.8 J	1.8 J	11.1	5.1	2.1 J	4.7 J
Acenaphthylene	5 U	5 U	2	5 U	2.0	2.00	5 U	5 U	2.5 J	5 U	3.6 J	5 U	2 J	4.5 J	5 U	5 U	5 U	5 U	1.1 J	5 U	1.5 J	1.2 J	5 U	5 U
Anthracene	67.5	17.8	13.8	1.2	33.0	25.08	83.8	12.1	28.8	6.6	42.8	8.7	43.9	25.5	8.5	7.8	14.7	7.9	10.4	5.6	25.5	15.4	5.2	9.6
Benzo(a)anthracene	601	76	63.3	4.9	246.8	186.30	288	68.5	141	30.7	206	35.8	222	157	37.9	47.8	78.4	41.3	51.8	24.5	151	85.9	22.5	48.4
Benzo(a)pyrene	530	30.7	95	9	218.6	166.18	204	62.5	160	30.1	214	45.1	218	160	41	56.1	88.8	50.6	60.6	28.4	165	95.7	30.5	68
Benzo(b)fluoranthene	359	88.2	99	10.2	182.1	139.10	127	55.1	143	33.8	221	43.4	220	189	42.4	59.1	96.8	54.4	62.9	31	156	99.4	30	63.6
Benzo(e)pyrene	247	82.9	--	--	165.0	164.95	224	59.7	142	31.6	209	40.8	190	183	41	47.6	86.2	48	58	31.4	134	91	29.1	59.8
Benzo(g,h,i)perylene	218	86	148	12.1	150.7	116.03	142	50.9	175	33.2	207	47.4	191	194	48.5	52.4	95.7	58.8	63.7	37.6	158	101	35.5	69.9
Benzo(k)fluoranthene	465	77.6	48.4	4.8	197.0	148.95	86	51.1	141	31.9	215	41.7	224	176	41.5	59.1	93	52.7	62.1	27.5	162	93.8	32.5	66.5
Chrysene	560	127	136	12.3	274.3	208.83	565	120	250	51.1	339	59.3	333	294	63.9	73.2	134	70.9	83	45.5	220	141	45	85.4
Dibenzo(a,h)anthracene	85.2	64.8	26.8	2.8	58.9	44.90	46.8	13	33.6	6.5	41.6	9.5	43.5	25.8	8	10.4	18.3	11	12	6	31.8	20	5.5	11.5
Fluoranthene	1090	239	191	20.5	506.7	385.13	253	121	322	87.4	594	109	756	341	106	164	246	121	153	76	421	248	73.3	140
Fluorene	5 U	13.2	9.5	5 U	11.4	11.35	121	7.2	20.5	5.1	29.8	6.1	22.1	31.2	5.2	5.3	9.2	6.2	6.8	4.6 J	13.4	9.2	4.3 J	7.1
Indeno(1,2,3-cd)pyrene	307	13.3	96.6	6.5	139.0	105.85	61.6	35.3	119	27.1	177	37.6	189	121	35.1	52	82.6	46.7	51.1	24.5	145	86.9	23.6	59.3
Naphthalene	5 U	13.8	7.3	1.5	10.6	7.53	26.1	5.5	16.6	5 U	9.6	5 U	2.3 J	17.5	3.4 J	1.6 J	6.6	4 J	6.7	3.6 J	7.9	5.6	3.7 J	5.6
Perylene	125	48.8	--	--	86.9	86.90	155	30.6	70.1	15.7	81.4	20.5	77.6	69.4	21.8	19.9	42.2	27.1	26.8	17.1	61.1	42.1	16.1	36.3
Phenanthrene	246	114	63	3.6	141.0	106.65	839	90.7	205	33.5	314	49.3	404	189	46.8	65.8	106	52.9	73.7	31.3	193	102	33.1	64.3
Pyrene	1030	215	203	41.4	482.7	372.35	616	154	333	84.4	570	105	645	391	102	127	230	116	139	74.7	376	234	68.6	138
Total PAHs	5997	1443	1206	131	2882	2194	6814	1084	2557	547	3699	702	3912	2917	679	861	1478	798	957	491	2486	1520	482	973
Pesticides (µg/kg)																								
2,4'-DDD	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4'-DDE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4'-DDT	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,4-DDD	5 U	5 U	4.1	2.1	4.1	3.10	5 U	5 U	5 U	5 U	4.6 J	5 U	1.7 J	5 U	1.1 J	5 U	1.4 J	5 U	5 U	5 U	1.9 J	5 U	5 U	5 U
4,4-DDE	5 U	5 U	8.6	1.2	8.6	4.90	5 U	4.7 J	14.6	3 J	13.3	3.2 J	6.7	26.2	2.9 J	5 U	6.1	4.5 J	2 J	2.9 J	6.2	6.9	5 J	6.4
4,4-DDT	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDT (PSDDA)	5 U	1.9	12.7	3.3	7.30	5.97	0	4.7	14.6	3	17.9	3.2	8.4	26.2	4	0	7.5	4.5	2	2.9	8.1	6.9	5	6.4
Aldrin	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-BHC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Chlordane	5 U	5 U	4.2	5 U	5 U	4.20	5.4	5 U	4.5 J	5 U	4.1 J	5 U	3.8 J	4.9 J	1.1 J	5 U	2.7 J	2.7 J	1.5 J	2.3 J	1.4 J	2 J	5 U	2.2 J
beta-BHC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
beta-Chlordane	--	--	--	--	--	--	4.4 J	5 U	5.7	5 U	2.8 J	5 U	5.1	7.3	2.5 J	5 U	3 J	2.2 J	1.4 J	2.3 J	3.4 J	2.3 J	5 U	2.7 J
cis-Nonachlor	--	--	--	--	--	--	--	--	--	5 U	1.1	5 U	1.5	5 U	5 U	5 U	5 U	2	1.8	5 U	5 U	1.3	5 U	5 U
delta-BHC	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dieldrin	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan I	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan II	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan sulfate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin aldehyde	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin ketone	5 U	5 U	--	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-BHC (Lindane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table C-1
Long Beach
Summary of Sediment Data

Sample ID	Area 1/2 T	Area 1/2 B	6-23-Fines	6-23-Sands	Average	Average	7-8-D-1	7-8-CS-1	7-8-FS-1	7-8-CS-2	7-8-FS-2	7-9-CS-1	7-9-FS-1	7-9-Sludge	7-11-CS-1	7-11-CSW-1	7-11-FS-1	7-11-FSW-1	7-12-CS-1	7-12-CSW-1	7-12-FS-1	7-12-FSW-1	7-13-CS-1	7-13 FS-1
Sample Date	2/2005	2/2005	6/23/2005	6/23/2005	LARE	LARE	7/8/2005	7/8/2005	7/8/2005	7/8/2005	7/8/2005	7/9/2005	7/9/2005	7/9/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/13/2005	7/13/2005
Sample Matrix	SE	SE	SE	SE	(less sands)	Bulk Conc.	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Heptachlor	5 U	5 U	**3.8**	5 U	**3.80**	**3.80**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Heptachlor epoxide	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methoxychlor	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Mirex	--	--	--	--	--	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Oxychlordane	--	--	--	--	--	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toxaphene	--	--	--	--	--	--	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
trans-Nonachlor	50 U	50 U	50 U	50 U	50 U	50 U	**4.2 J**	5 U	**3.9 J**	5 U	**2.7 J**	5 U	**2.2 J**	**5**	**1.1 J**	5 U	**1.9 J**	**1.7 J**	**1.1 J**	**2 J**	**2.4 J**	**2.2 J**	5 U	**2 J**
PCBs (µg/kg)																								
Aroclor 1016	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1221	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1232	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1242	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	**25.3**	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1248	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1254	**28**	20 U	20 U	20 U	**28**	**28**	20 U	20 U	**35.3**	20 U	**21.4**	20 U	**17 J**	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	**10.4 J**
Aroclor 1260	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total PCBs	**69.6**	20 U	**15.4**	**6.5**	**42.5**	**31**	**0**	**0**	**12.9**	**0**	**12.2**	**0**	**11.6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
PCB Cong. (µg/kg)																								
PCB-18	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-28	5 U	5 U	5 U	**1.1**	5 U	**1.10**	5 U	5 U	5 U	5 U	5 U	5 U	**1.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-31	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.8 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-33	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.9 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-37	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-44	**5**	5 U	5 U	5 U	**5.0**	**5.00**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-49	**7.3**	5 U	5 U	**1.8**	**7.3**	**4.55**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-52	**7.3**	5 U	5 U	**2.4**	**7.3**	**4.85**	5 U	5 U	5 U	5 U	5 U	5 U	**2 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-66	**9.1**	5 U	5 U	5 U	**9.1**	**9.10**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-70	**8.4**	5 U	5 U	**1.2**	**8.4**	**4.80**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-74	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-77	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-81	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-87	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-95	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2.1 J**	5 U	**1.2 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-97	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-99	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-101	**6**	5 U	**1.7**	5 U	**3.9**	**3.85**	5 U	5 U	5 U	5 U	**1.9 J**	5 U	**2.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.3 J**
PCB-105	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-110	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**4.3 J**	5 U	**2.6 J**	5 U	**2.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.3 J**
PCB-114	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-118	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2.4 J**
PCB-119	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-123	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-126	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-128/167	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-132/168	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-138	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-141	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-149	5 U	5 U	**2.8**	5 U	**2.8**	**2.80**	5 U	5 U	**4.1 J**	5 U	**2.4 J**	5 U	**1.3 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2 J**
PCB-151	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-153	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**4.5 J**	5 U	**1.3 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-156	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-157	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-158	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-169	5 U	5 U	**9.1**	5 U	**9.1**	**9.10**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-170	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-177	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-180	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-183	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-187	5 U	5 U	**1.8**	5 U	**1.8**	**1.80**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-189	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-194	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-200	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-201	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-206	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table C-1
Long Beach
Summary of Water Data

Sample ID Sample Date Sample Matrix	7-8-LARE RAW 7/8/2005 WO	7-8-Slurry 1 7/8/2005 WO	7-8-WBF1-50 7/8/2005 WO	7-8-WBF1-1 7/8/2005 WO	7-9-Slurry 1 7/9/2005 WO	7-9-WBF 1-50 7/9/2005 WO	7-9-WBF 1-1 7/9/2005 WO
Total Solids (%)	--	--	--	--	--	--	--
Total Solids (mg/l)	--	--	--	--	--	--	--
Total suspended solids (mg/l)	4	9480	5200	36	58	35.5	19.5
Total Metals (µg/l)							
Aluminum	21.4	114000	79500	764	1670	1150	681
Antimony	0.131	2.8	8.62	2.95	1.12	1.99	2.77
Arsenic	0.866	29.3	7.87	0.669	1.09	0.922	0.696
Barium	--	1280	1020	--	--	--	--
Beryllium	0.01 U	8.31	5.28	0.028	0.047	0.029	0.016
Cadmium	0.031	60.8	46.4	0.123	0.236	0.142	0.076
Chromium	0.295	349	237	2.01	4.23	2.75	1.54
Cobalt	0.01 U	29.1	0.12 J	1.51	2.42	2.14	1.81
Copper	1.79	1180	706	4.22	8.82	5.8	3.17
Iron	56.3	251000	162000	980	2650	1830	1130
Lead	0.207	1310	759	5.51	8.29	5.7	3.04
Manganese	20.8	3580	2290	279	214	197	166
Mercury	0.00401	2.35	1.38	0.01208	0.01 U	0.01 U	0.01 U
Molybdenum	10.9	42	47.3	41.3	42.6	44.1	44
Nickel	0.67	357	207	5.04	7.42	6.29	5.46
Selenium	0.06	0.5 U	0.5 U	0.015 U	0.126	0.108	0.059
Silver	0.01 U	3.45	2.73	0.01 U	0.01 U	0.01 U	0.01 U
Strontium	--	8950	8490	--	--	--	--
Thallium	0.005 J	2.85	2.52	0.01 U	0.015	0.01 J	0.005 J
Tin	0.007 J	17.9	13.9	0.116	0.225	0.156	0.091
Titanium	1.59	908	1950	63.9	136	92.1	51.8
Vanadium	2.19	482	307	4.39	8.11	5.56	3.63
Zinc	8.99	5600	3240	23.1	35.4	24	13.7
SVOCs (ng/l)							
1,1'-Biphenyl	5 U	571	227	35.5	1.9 J	5 U	5 U
1-Methylnaphthalene	5 U	850	352	211	1.2 J	5 U	5 U
1-Methylphenanthrene	5 U	1080	577	5 U	18.9	5 U	5 U
2,3,5-Trimethylnaphthalene	5 U	1330	588	30.6	21.2	5 U	5 U
2,6-Dimethylnaphthalene	5 U	3090	1280	84.9	25.1	10.7	8.4
2-Methylnaphthalene	5 U	1320	547	213	7.5	3 J	3.7 J
Acenaphthene	5 U	300	136	21.5	10.2	5 U	5 U
Acenaphthylene	5 U	105	44	5 U	4 J	4.2 J	5 U
Anthracene	5 U	832	312	5 U	21.4	6.3	5 U
Benzo(a)anthracene	5 U	2080	900	5 U	52.5	7.2	5 U
Benzo(a)pyrene	5 U	2100	825	5 U	46.9	11.7	5 U
Benzo(b)fluoranthene	5 U	2410	979	5 U	49.2	11.3	5 U
Benzo(e)pyrene	5 U	2440	984	5 U	46.7	12.4	5 U
Benzo(g,h,i)perylene	5 U	2260	1120	5 U	40.1	12.1	40.1
Benzo(k)fluoranthene	5 U	2060	769	5 U	44.3	11.2	5 U
Chrysene	5 U	4240	1640	5 U	92.6	21.6	5 U
Dibenzo(a,h)anthracene	5 U	337	168	5 U	6.6	5 U	6.6
Dibenzothiophene	--	--	--	--	5 U	5 U	5 U
Fluoranthene	5 U	6680	2580	5 U	132	46.4	18.6
Fluorene	5 U	782	324	27.6	12.4	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	1440	658	5 U	36.7	7.6	36.7
Naphthalene	5 U	409	167	90.4	5 U	5 U	5 U
Perylene	5 U	1110	485	5 U	17.4	6	5 U
Phenanthrene	5 U	4850	1810	5 U	59.7	16.5	5.5
Pyrene	5 U	7410	2840	5 U	137	48.4	18.9
Total PAHs (U=0)	0	50086	20312	714.5	885.5	236.6	138.5
Pesticides (ng/l)							
2,4'-DDD	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4'-DDE	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4'-DDT	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,4-DDD	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,4-DDE	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4,4-DDT	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDT (U=0)	0	0	0	0	0	0	0
Aldrin	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-BHC	5 U	5 U	5 U	5 U	5 U	5 U	5 U
alpha-Chlordane	5 U	77.3	48.3	5 U	5 U	5 U	5 U
beta-BHC	5 U	5 U	5 U	5 U	5 U	5 U	5 U
delta-BHC	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dieldrin	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan I	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan II	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endosulfan sulfate	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table C-1
Long Beach
Summary of Water Data

Sample ID Sample Date Sample Matrix	7-8-LARE RAW 7/8/2005 WO	7-8-Slurry 1 7/8/2005 WO	7-8-WBF1-50 7/8/2005 WO	7-8-WBF1-1 7/8/2005 WO	7-9-Slurry 1 7/9/2005 WO	7-9-WBF 1-50 7/9/2005 WO	7-9-WBF 1-1 7/9/2005 WO
Endrin	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin aldehyde	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Endrin ketone	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-BHC (Lindane)	5 U	5 U	5 U	5 U	5 U	5 U	5 U
gamma-Chlordane	5 U	**116**	**43.8**	5 U	5 U	5 U	5 U
Heptachlor	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Heptachlor epoxide	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methoxychlor	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Mirex	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Oxychlordane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toxaphene	50 U	50 U	50 U	50 U	50 U	50 U	50 U
trans-Nonachlor	5 U	**71.7**	**27**	5 U	5 U	5 U	5 U
PCBs (ng/l)							
Aroclor 1016	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1221	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1232	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1242	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1248	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1254	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Aroclor 1260	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Total PCBs (U=0)	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PCB Cong (ng/l)							
PCB-18	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-28	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-31	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-33	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-37	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-44	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-49	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-52	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-66	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-70	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-74	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-77	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-81	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-87	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-95	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-97	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-99	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-101	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-105	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-110	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-114	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-118	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-119	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-123	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-126	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-128/167	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-132/168	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-138	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-141	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-149	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-151	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-153	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-156	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-157	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-158	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-169	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-170	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-177	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-180	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-183	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-187	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-189	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-194	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-200	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-201	5 U	5 U	5 U	5 U	5 U	5 U	5 U
PCB-206	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table C-2
Pilot Study Equipment Comparison to Equipment Capacity

LARE Field Pilot Study	Tri-Flo Equipment Capacity
1-10" hydrocyclone and 8-4" hydrocyclones/unit	2-10" hydrocyclones and 8-4" hydrocyclones/unit
500 gal/min	1000 gal/min
~10% solids	~15% solids
6 yards/hour (bulk)	22-30 yards/hour (bulk)
20 hrs/day = 120 yards/day	20 hrs/day = 440-600 yards/day

Table C-3
Field Pilot Study – Sediment Sample Log

Sample Date	Sample ID	Sample Description
7-8-05	7-8-D-1	Debris sample from #30/40 mesh scalper screen.
7-8-05	7-8-CS-1	75µ course sand, collected at 1300 hrs
7-8-05	7-8-FS-1	35µ fine sand, collected at 1300 hrs
7-8-05	7-8-CS-2	75µ course sand, collected at 1500 hrs
7-8-05	7-8-FS-2	35µ fine sand, collected at 1500 hrs
Production Note – Changed scalper screen to larger #20 mesh due to high sand content in debris		
7-9-05	7-9-sludge-1	Sludge collected from bottom of settling tank
7-9-05	7-9-CS-1	75µ course sand, collected at 1300 hrs
7-9-05	7-9-FS-1	35µ fine sand, collected at 1300 hrs
7-11-05	7-11-CS-1	75µ course sand, collected at 1300 hrs
7-11-05	7-11-FS-1	35µ fine sand, collected at 1300 hrs
7-11-05	7-11-CSW-1	75µ course sand, collected at 1300 hrs, hand washed*
7-11-05	7-11-FSW-1	35µ fine sand, collected at 1300 hrs, hand washed*
7-12-05	7-12-CS-1	75µ course sand, collected at 1300 hrs
7-12-05	7-12-FS-1	35µ fine sand, collected at 1300 hrs
7-12-05	7-12-CSW-1	75µ course sand, collected at 1300 hrs, spray washed**
7-12-05	7-12-FSW-1	35µ fine sand, collected at 1300 hrs, spray washed**
7-12-05	7-12-solids-1	Slurry collected at 1400 hrs prior to scalper
7-12-05	7-12-solids-2	Surry collected at 1430 hrs with attempt at higher solids
7-13-05	7-13-CS-1	75µ course sand, collected at 1300 hrs
7-13-05	7-13-FS-1	35µ fine sand, collected at 1300 hrs

* Hand washing consisted of filling the sample jar with site water and sand, shaking it vigorously for 10 seconds, and then decanting the suspended material in the overlying water. This process was repeated 2 additional times and then a sample was collected.
** Spray washing consisted of adding a garden hose with spray nozzle over the shaker screen leaving the 10″ hydrocyclone and rinsing the material as it passes by.

Table C-4
Field Pilot Study – Process Water Sample Log

Sample Date	Sample ID	Sample Description
7-8-05	7-8-LARE-RAW	Raw site water collected from the LARE at 1300 hrs
7-8-05	7-8-WBF1-1	Unsettled slurry water after 1µ bag filter at 1400 hrs
7-8-05	7-8-WBF1-50	Unsettled slurry water after 50µ bag filter at 1400 hrs
7-8-05	7-8-Slurry-1	Unsettled slurry water at 1400 hrs.
7-9-05	7-9-WBF1-1	Settled slurry water after 1µ bag filter at 1200 hrs
7-9-05	7-9-WBF1-50	Settled slurry water after 50µ bag filter at 1200 hrs
7-9-05	7-9-Slurry-1	Settled slurry water after 15hrs – no filtration – collected at 1200 hrs

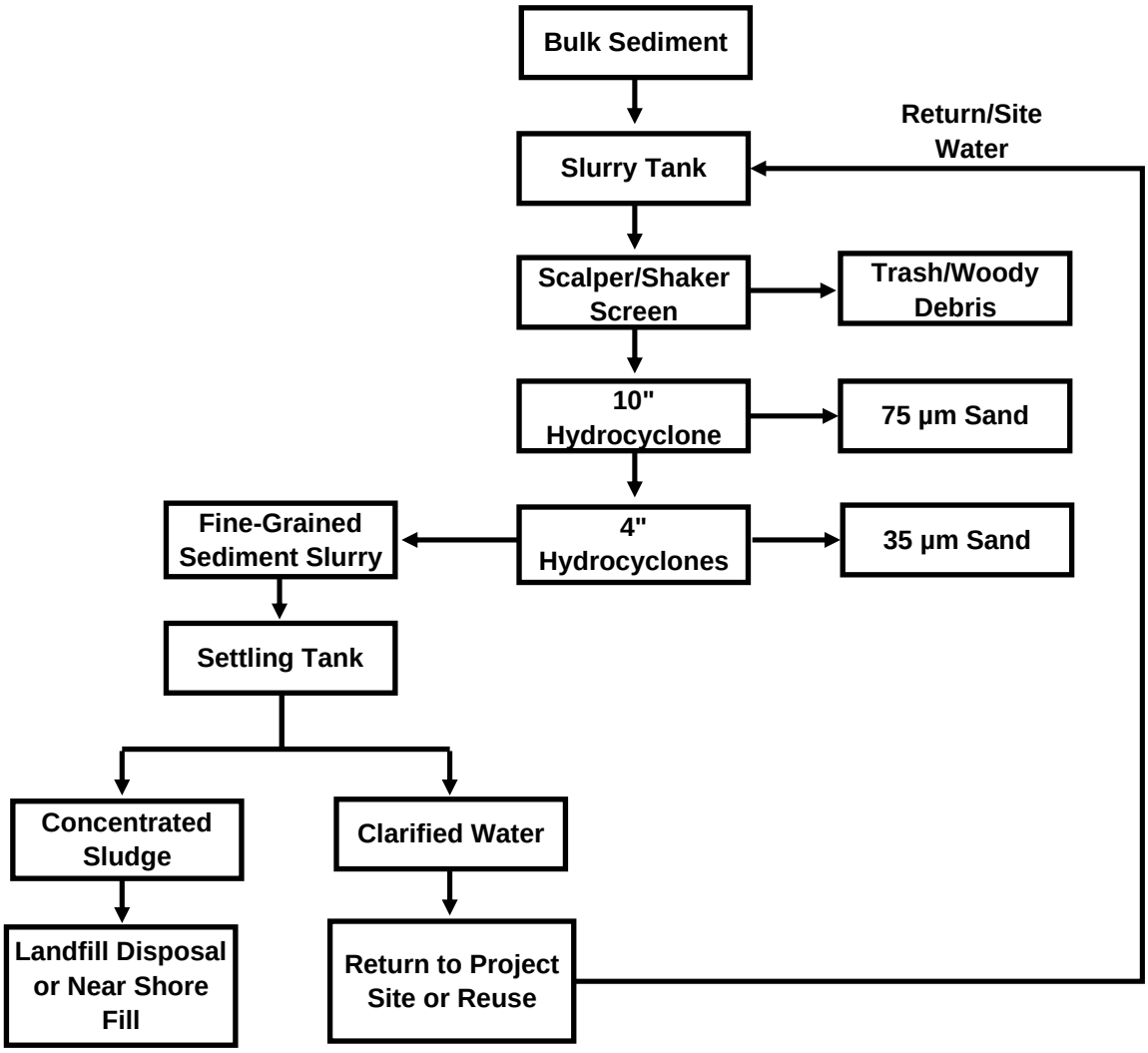


Figure C-1
Hydrocyclone Field Pilot Study Treatment Design

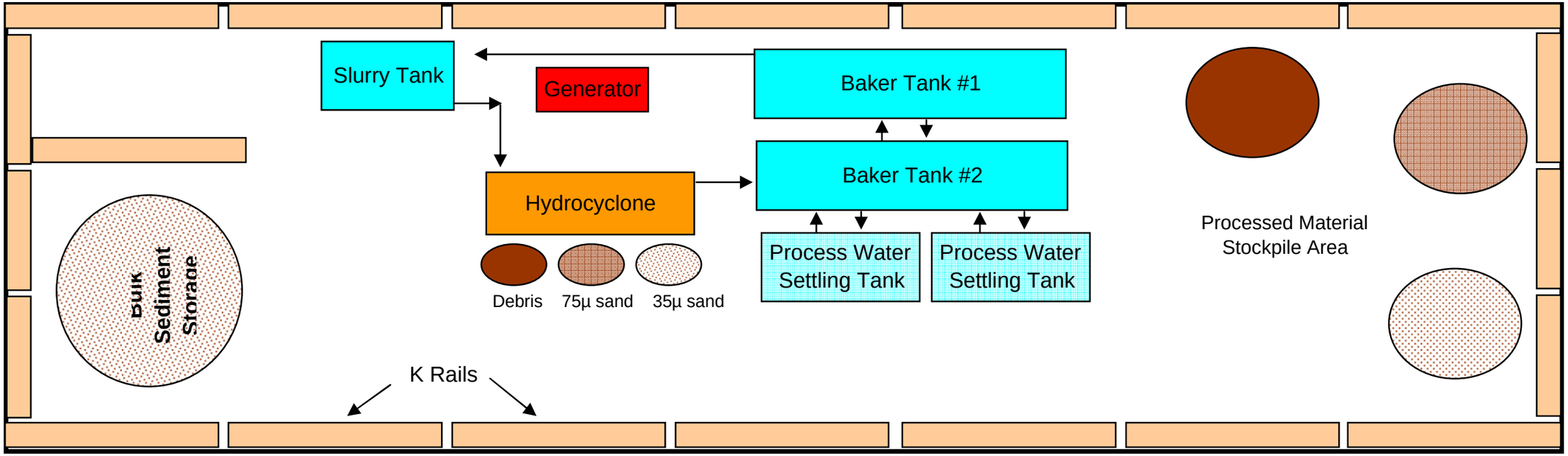


Figure C-2
Barge Layout

Figure C-3
Field Pilot Study Barge Layout
(treatment equipment on left, derrick barge in middle and dredge material on right)

Figure C-4
Field Pilot Study – Manson Work Barge and Dredge Material

Figure C-5
Aerial view of Tri-Flo International Hydrocyclone and Scalper Unit

Figure C-6
Aerial View of Hydrocyclone, Baker Tanks, Settling Tanks and Generator

Figure C-7
Field Pilot Study – Hydrocyclone in Operation

Figure C-8
LARE Debris Removed from Scalper Unit

Figure C-9
Field Pilot Study – Washed Sand Output from 10” Hydrocyclone

Figure C-10
Washed Sand after 24, 48, and 96 Hour Post Processing (right to left)

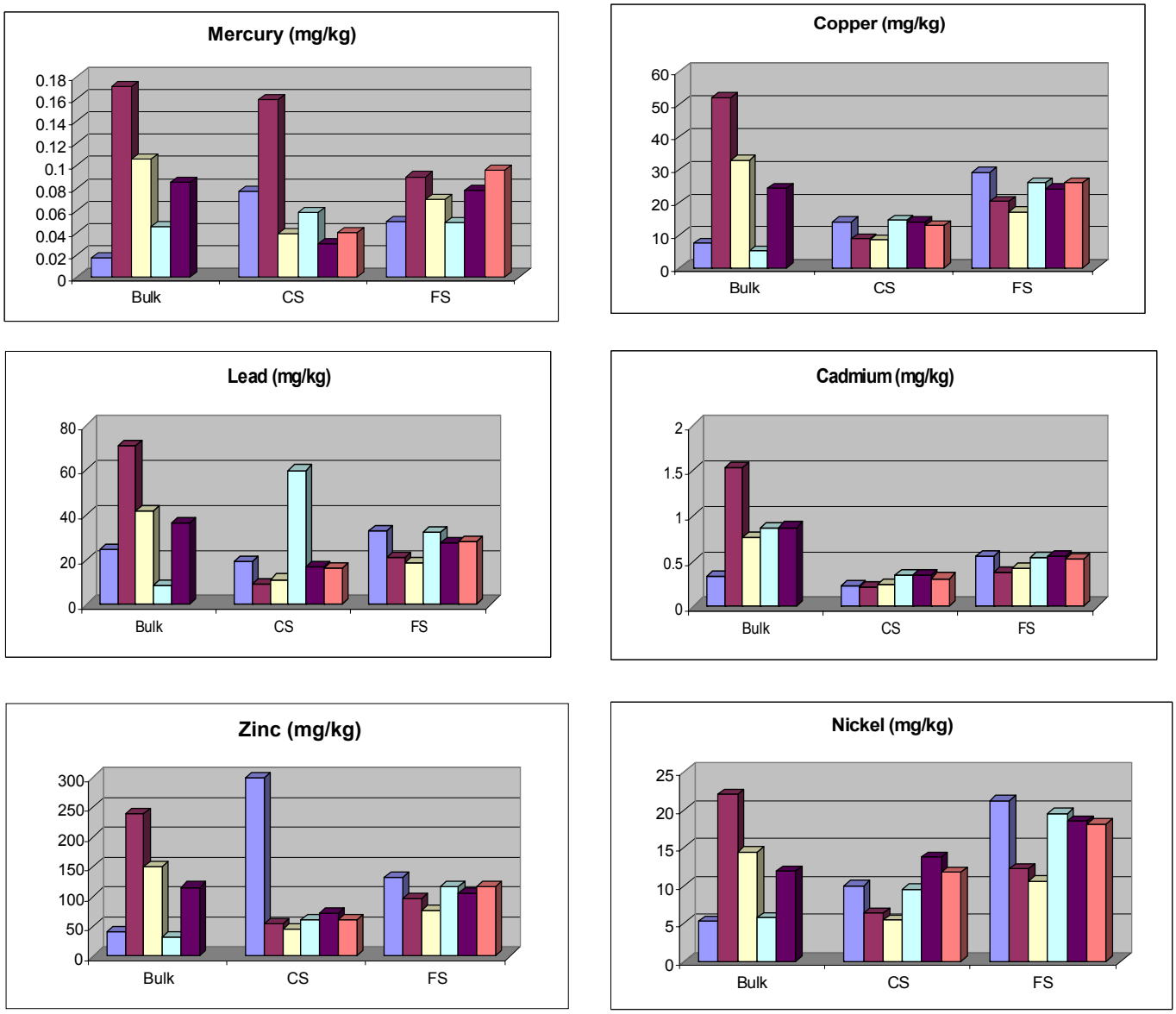
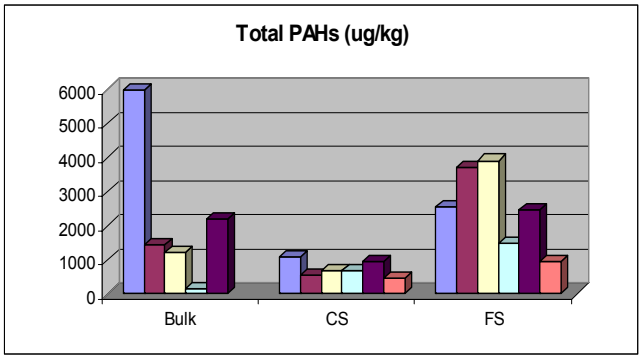
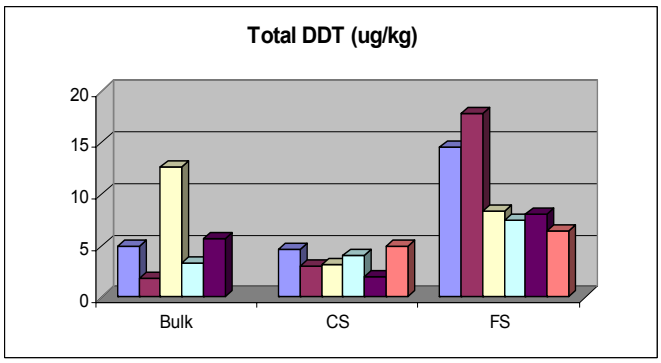


Figure C-11
Inorganic Results of Metals





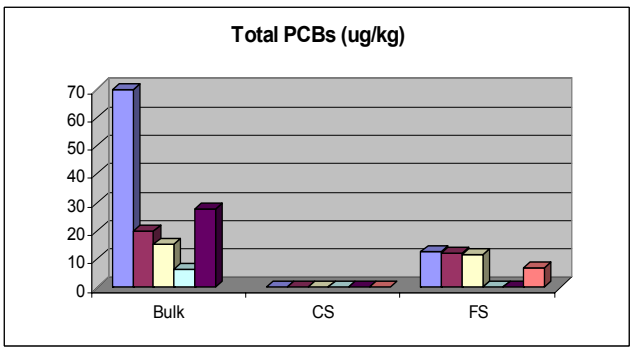
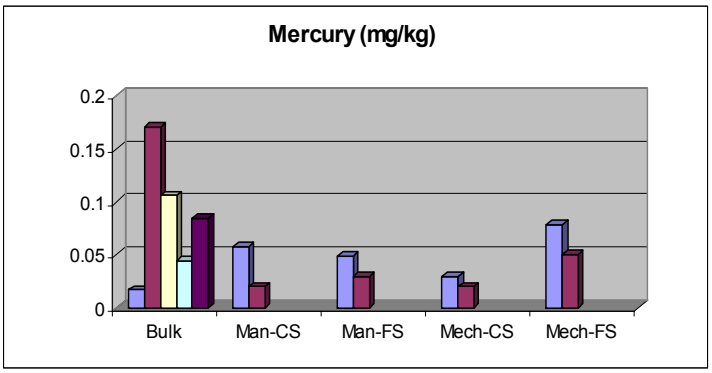
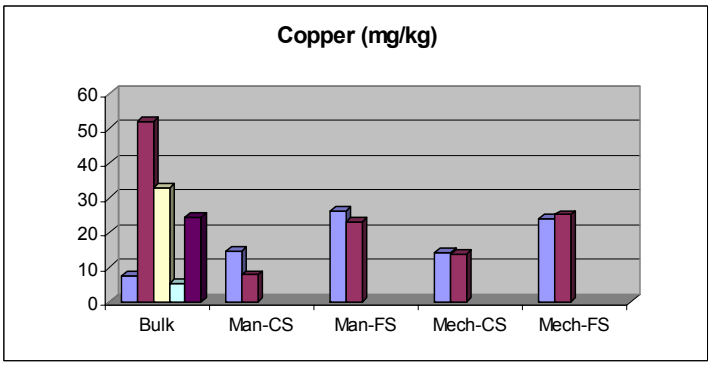
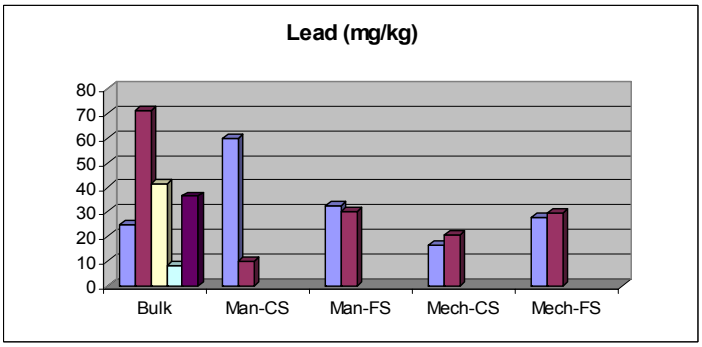
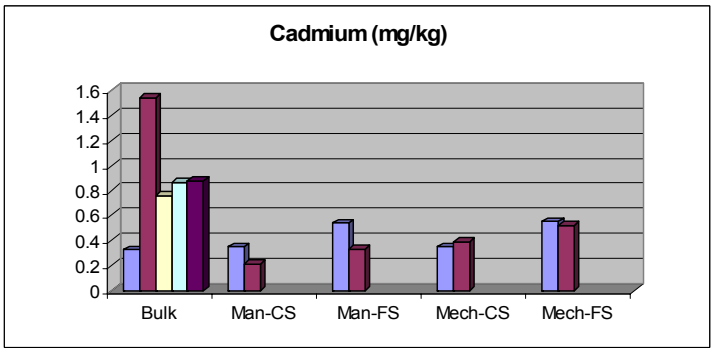


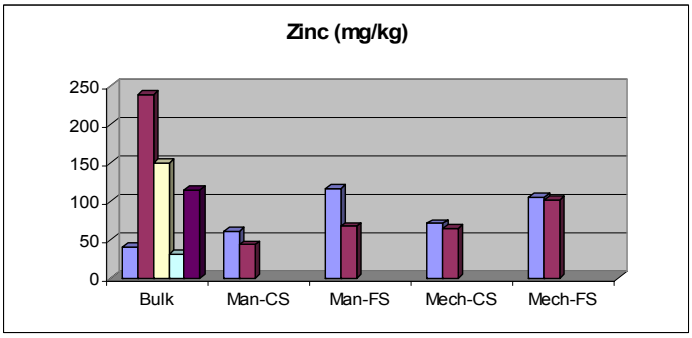
Figure C-12
Sand Separation Organic Results for Total PAHs, Total DDTs, and PCBs











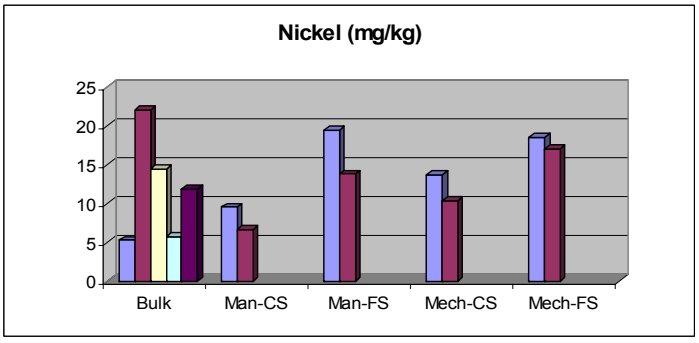
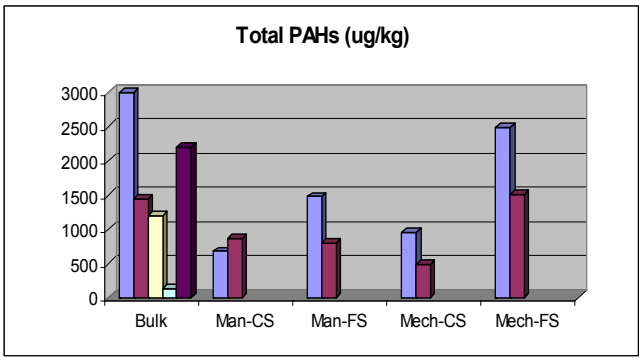
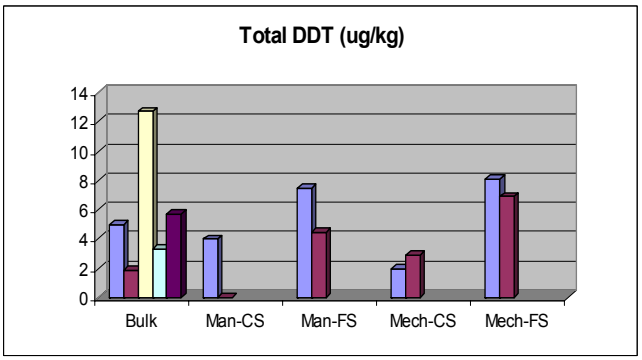


Figure C-13
Washing Experiments Results for Metals





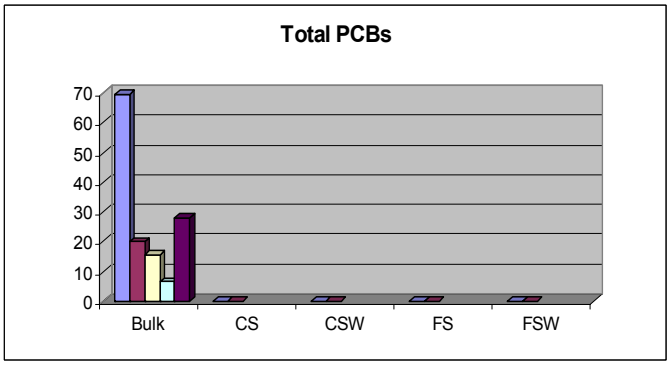


Figure C-14
Washing Experiment Results for Total PAHs, Total DDT and PCBs

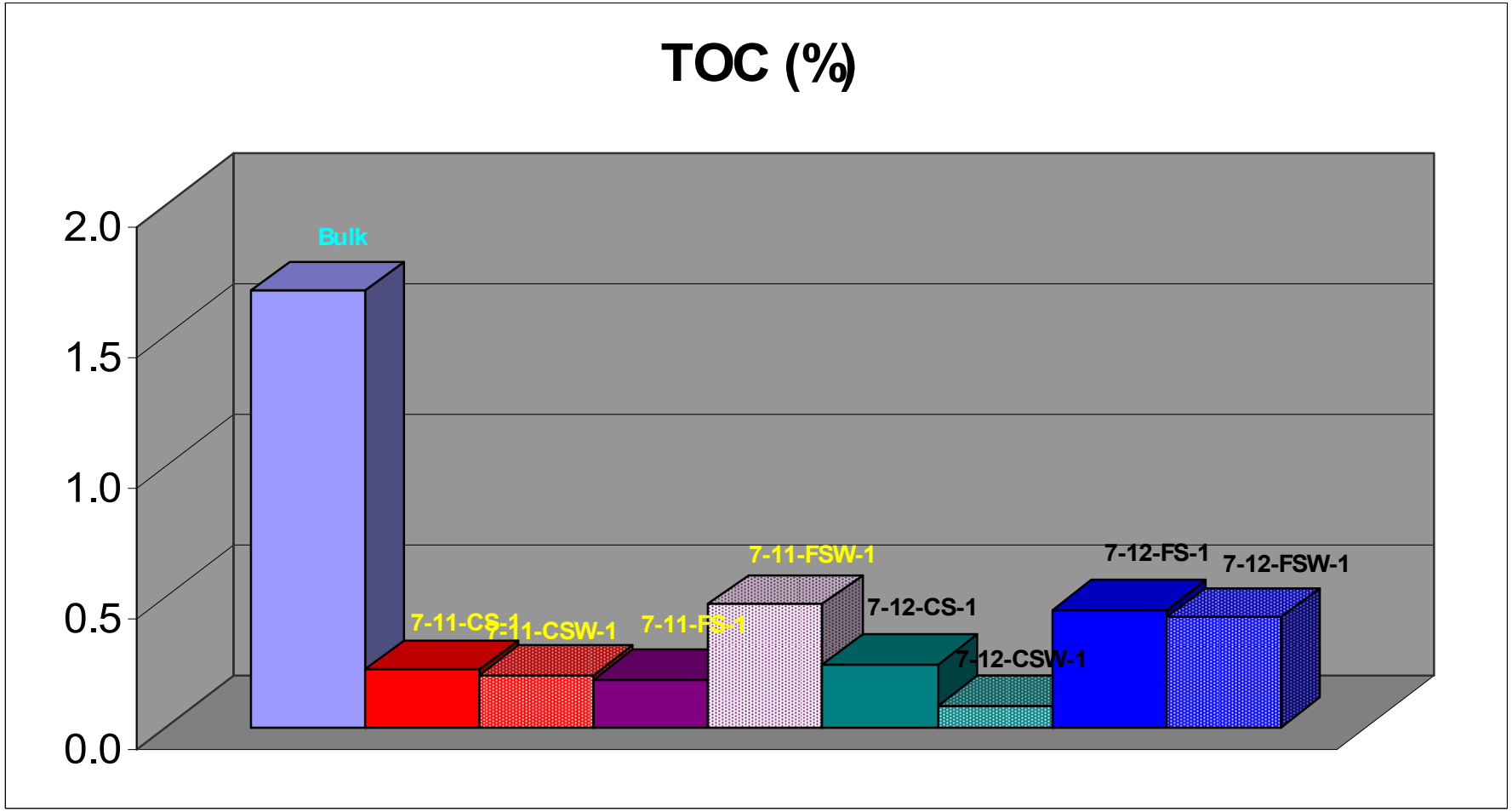
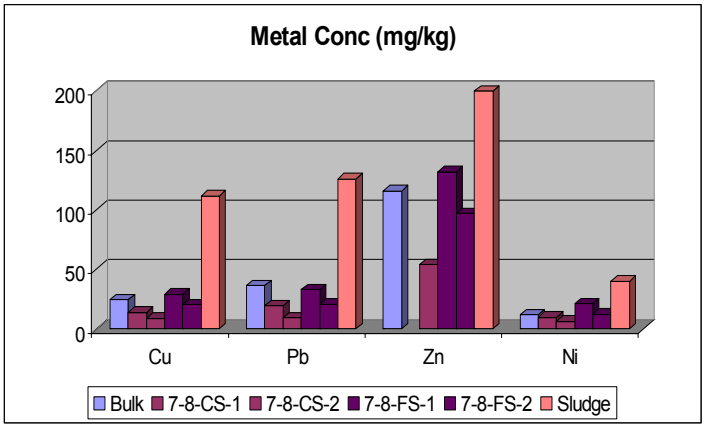
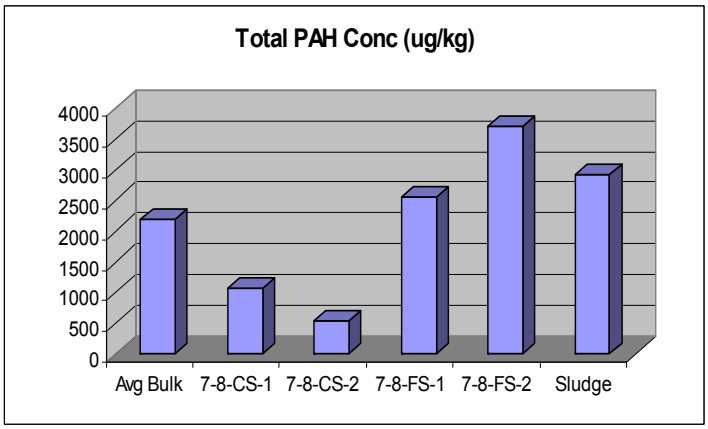


Figure C-15
Washing Experiment Results for TOC





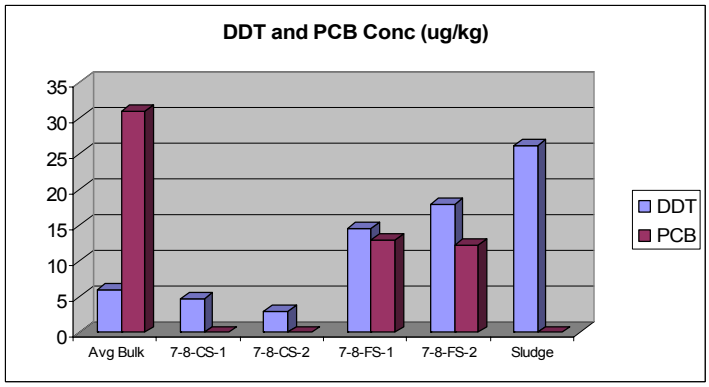


Figure C-16
Chemical Concentrations for the Sludge Material after Settling in the Baker Tanks

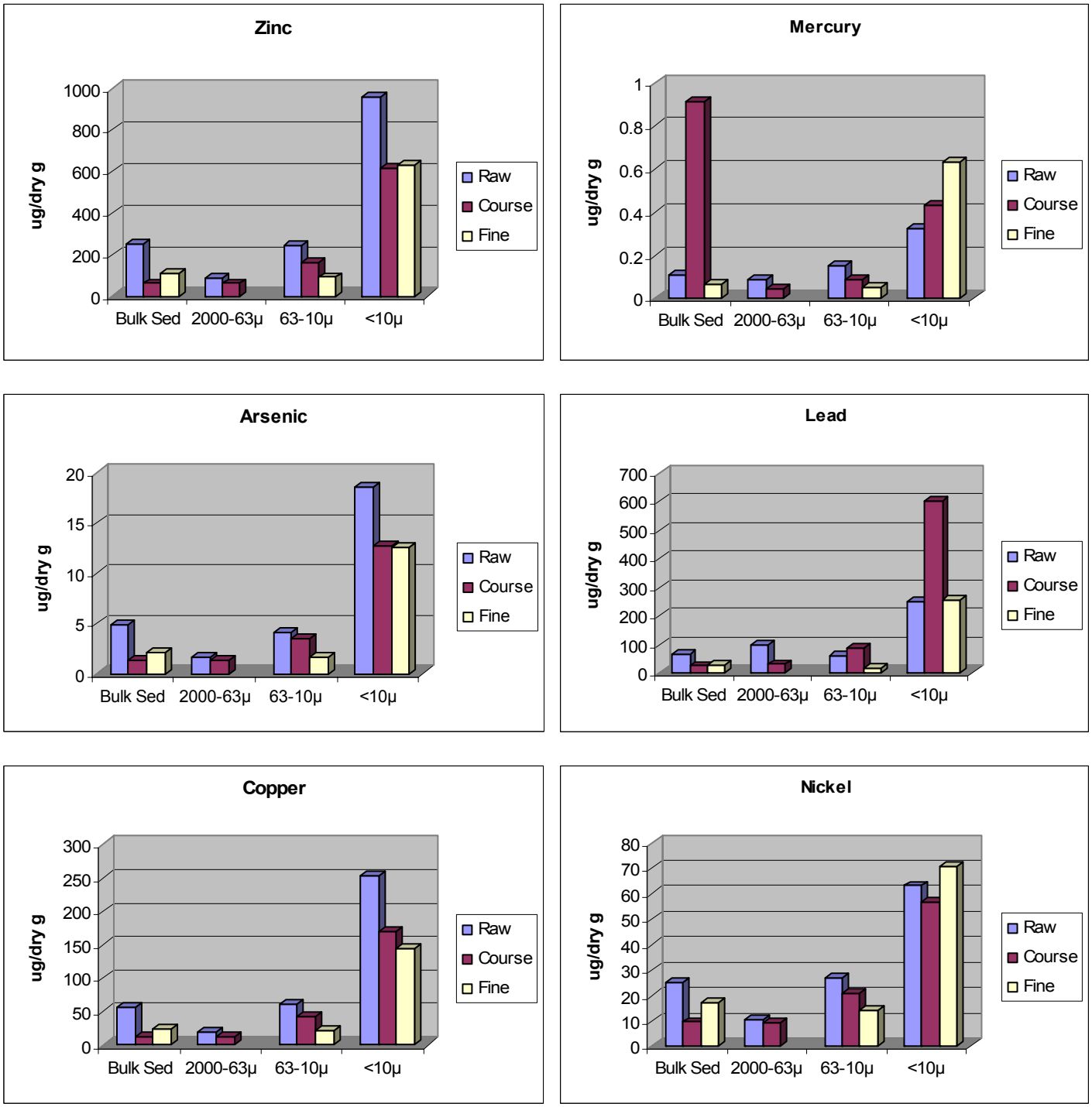
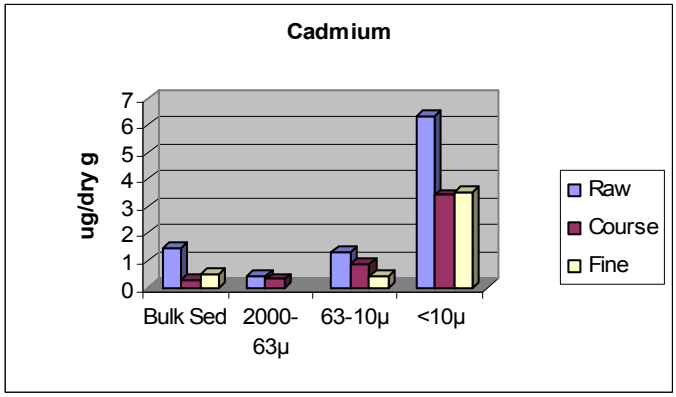


Figure C-17

Sand Separation Results for Metals



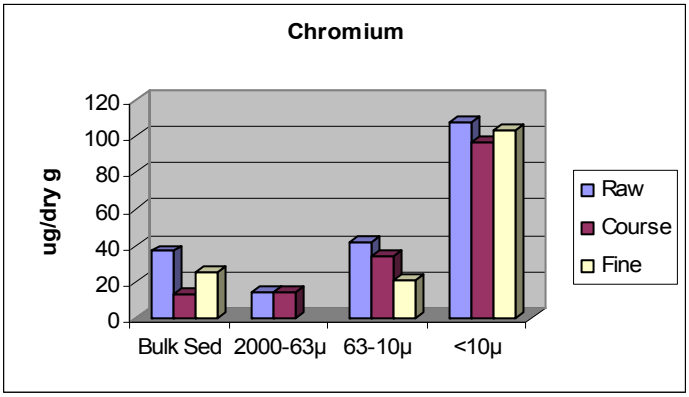


Figure C-17 (continued)
Sand Separation Results for Metals

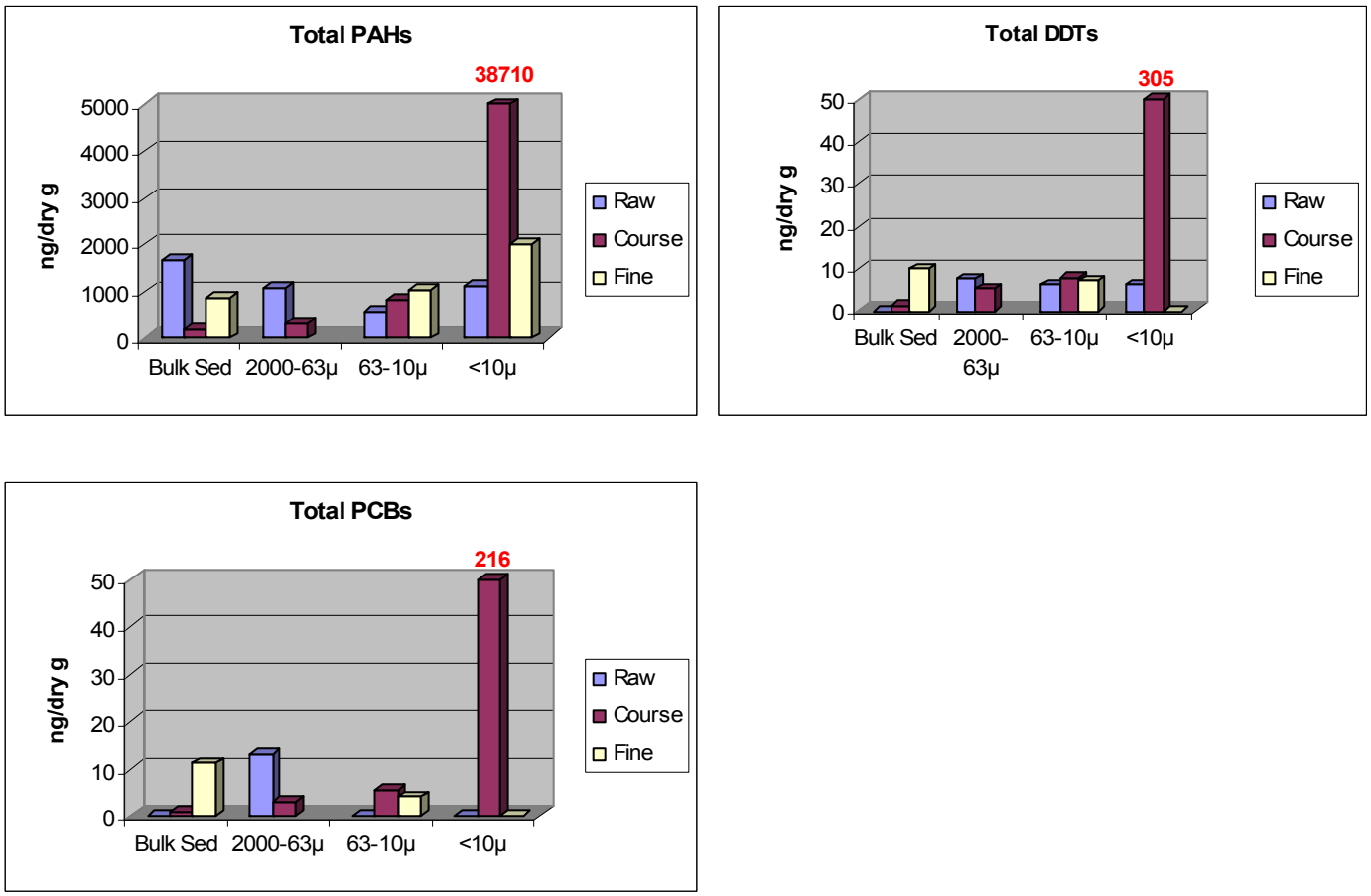


Figure C-18

Sand Separation Results for Total PAHs, Total DDTs, and PCBs

APPENDIX D
SAND SEPARATION LAB AND FIELD PILOT STUDY ANALYTICAL DATA

APPENDIX D
Table of Contents

Texas Lab Pilot Study (Appendix B)

Raw Data Packet 1	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs Bulk Rhine, Rhine Sand, Rhine Cake, Rhine Decant and QAQC collected on February 24, 2005.
Raw Data Packet 10	Total Organic Carbon data for Sample ID Rhine Decant collected on February 24, 2005
Raw Data Packet 11	Grain Size data for Sample IDs Bulk Rhine, Rhine Sand, and Rhine Cake, Collected on March 4, 2005

LARE Field Pilot Study (Appendix C)

Raw Data Packet 3	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs LARE Sand and Fines collected on June 23, 2005
Raw Data Packet 5	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-9-Slurry, 7-9-WBF 1-1, 7-9-WBF 1-50, QAQC, collected on July 9, 2005
Raw Data Packet 2	Grain Size Data for Sample ID's P2563b collected on July 1, 2005
Raw Data Packet 4	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-8-LARE RAW, 7-8-WBF1-1, 7-8-WBF1-50, 7-8-Slurry-1, QAQC, 7-8-D-1, 7-8-CS-1, 7-8-FS-1, collected on July 8, 2005

Raw Data Packet 6	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-9- FS-1, 7-9- CS-1, 7-9-FS-2, 7-9-CS-2, collected on July 9, 2005
Raw Data Packet 7	Total Organic results for Sample IDs 7-11-FS-1, 7-11-CS-1, 7-11-FSW-1, 7-11-CSW-1, 7-12-FS-1, 7-12-CS-1, 7-12-FSW-1, and 7-12-CSW-1
Raw Data Packet 8	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data 7-11-FS-1, 7-11-CS-1, 7-11-FSW-1, 7-11-CSW-1, 7-12-FS-1, 7-12-CS-1, 7-12-FSW-1, 7-12-CSW-1, collected on July 11, 2005
Raw Data Packet 9	Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-13-CS-1 and 7-13-FS-1, collected on July 13, 2005

Raw Data Packet 1

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs Bulk Rhine, Rhine Sand, Rhine Cake, Rhine Decant and QAQC collected on February 24, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

March 14, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563
Anchor Project: Tri-Flo Bench Test

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your Tri-Flo Bench Test project. According to the chain-of-custody, 5 samples were received intact and cool at CRG on February 25, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 6020 & 1640
- Chlorinated Pesticides By GCMS Using EPA Method 8270 & 625
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 8270 & 625
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 8270 & 625
- Percent Solids Using EPA 160.3

Grain Size and TOC/DOC were subcontracted to other laboratories, results are included.

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	0.51	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	8.55	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	83	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.67	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.51	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	32.7	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	7.34	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	176	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	27000	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	58.5	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	266	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	3.08	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.49	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	25	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.66	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	E0.04	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	59.6	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.28	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	6.76	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1540	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	68.5	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	131	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	0.64	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	8.51	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	83.7	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.65	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.52	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	32.4	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	7.19	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	133	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	27000	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	86.1	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	249	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	3.23	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.66	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	17.9	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.58	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.33	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	59.1	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.29	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	10.7	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1690	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	67	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	125	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	1.07	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	4.18	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	40.7	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.15	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.58	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	8.27	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	2.16	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	50.7	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	8650	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	26.3	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	120	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	1.51	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.64	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	4.42	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.23	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	52.5	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.1	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	3.15	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	855	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	18.2	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	69.2	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	4.24	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	4.31	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	58.1	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.15	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	1.06	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	13.9	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	2.36	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	50.8	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	9190	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	67.5	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	125	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	1.43	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.71	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	4.7	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.2	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	47.4	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.12	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	3.87	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	941	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	19.7	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	86.2	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	1.5	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	14.4	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	158	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	1.29	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	5.46	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	68.6	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	12.4	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	281	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	49500	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	114	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	386	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	7.5	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	2.83	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	31.3	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	1.3	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.15	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	118	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.5	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	10.8	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	2430	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	129	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	324	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	1.51	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	17.7	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	209	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	1.63	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	6.73	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	85.6	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	15.1	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	340	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	58500	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	134	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	482	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	8.89	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	3.38	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	39.2	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	1.62	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.36	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	135	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.61	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	13.1	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	2950	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	155	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	388	µg/dry g	0.025	0.05	1	NA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11070	**Matrix:**	Seawater	**Date Processed:**	07-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	09-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	Total	EPA 1640	3.61	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	8.99	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.438	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.74	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	0.281	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	0.243	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	5.75	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	1.09	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	63.3	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	13.5	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.863	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.282	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.295	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	3.35	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	40.9	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	5.96	µg/L	0.005	0.01	1	NA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-11070	**Matrix:**	Seawater	**Date Processed:**	07-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	09-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	Total	EPA 1640	3.59	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	8.69	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.435	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.76	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	0.276	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	0.239	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	5.86	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	1.09	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	63.5	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	13.8	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.852	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.277	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.296	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	3.9	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	40.9	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	5.8	µg/L	0.005	0.01	1	NA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23418***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCM1		Tri-Flo Bench Test	**Date Received:**	
Batch ID:	2563-11070	**Matrix:**	Seawater	**Date Processed:**	07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	09-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	Total	EPA 1640	0.158	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.62	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.203	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.737	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	0.034	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	0.192	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	1.01	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.018	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	0.531	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	10.4	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.445	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	E0.01	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	0.232	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	E0.006	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	0.637	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	1.96	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	2.26	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23418***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCM2		Tri-Flo Bench Test	**Date Received:**	
Batch ID:	2563-11070	**Matrix:**	Seawater	**Date Processed:**	07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	09-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	Total	EPA 1640	0.163	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.65	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.224	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.777	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	0.034	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	0.222	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	1.2	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.018	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	0.532	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	10.7	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.444	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	0.375	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	E0.008	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	0.79	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	1.91	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	2.21	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CHLORINATED PESTICIDE RESULTS

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	93	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	95	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	96	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	95	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	92	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	100	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	92	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	93	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	98	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	94	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	93	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	9.9	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	98	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	98	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	95	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	96	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	4.1	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	91	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	102	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	90	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	93	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	99	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	95	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	94	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13018	**Matrix:**	Seawater	**Date Processed:**	28-Feb-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	117	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	119	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	126	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	113	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13018	**Matrix:**	Seawater	**Date Processed:**	28-Feb-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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AROCLOR-BASED PCB RESULTS

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2560-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	E12.8	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	35.1	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2560-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	32.5	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2560-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	37	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	36.1	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	41.8	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2560-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	23.3	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13018	**Matrix:**	Seawater	**Date Processed:**	28-Feb-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CONGENER-BASED PCB RESULTS

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23177*** **Sample Description:** Bulk Rhine
Replicate #: R1 Tri-Flo Bench Test
Batch ID: 2563-13025 **Matrix:** Sediment
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman

Date Sampled: 24-Feb-05 10:00
Date Received: 25-Feb-05
Date Processed: 07-Mar-05
Date Analyzed: 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	E1.9	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	E1.6	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E3.2	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E1.6	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23177*** **Sample Description:** Bulk Rhine Tri-Flo Bench Test **Date Sampled:** 24-Feb-05 10:00
Replicate #: R1 **Date Received:** 25-Feb-05
Batch ID: 2563-13025 **Matrix:** Sediment **Date Processed:** 07-Mar-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	12.9	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23177*** **Sample Description:** Bulk Rhine
Replicate #: RR-1 Tri-Flo Bench Test
Batch ID: 2563-13032 **Matrix:** Sediment
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman

Date Sampled: 24-Feb-05 10:00
Date Received: 25-Feb-05
Date Processed: 14-Mar-05
Date Analyzed: 15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	E2.3	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E3.9	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E4.3	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	E4	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E2.3	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E3.2	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	22.1	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CRG Marine Laboratories, Inc.
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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	E2.9	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	E4.1	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	E4.1	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	5.6	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E4	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	E3.1	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E2.7	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	E1.1	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E3	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	E2.5	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	45.3	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23179*** **Sample Description:** Rhine Sand **Date Sampled:** 24-Feb-05 10:00
Replicate #: R2 Tri-Flo Bench Test **Date Received:** 25-Feb-05
Batch ID: 2563-13025 **Matrix:** Sediment **Date Processed:** 07-Mar-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	E2.5	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	E3.2	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	E3.4	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	E3.2	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	5.3	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	E4	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	E4	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E3.5	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	E1.1	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	E1.5	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	E2.2	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	E1.2	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	E2.6	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	61.3	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23179*** **Sample Description:** Rhine Sand **Date Sampled:** 24-Feb-05 10:00
Replicate #: RR-1 Tri-Flo Bench Test **Date Received:** 25-Feb-05
Batch ID: 2563-13032 **Matrix:** Sediment **Date Processed:** 14-Mar-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	E3.7	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	E2.6	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	5.2	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	5.1	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	E3	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	E3	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E2.2	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E3.8	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	E1.1	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	41.1	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23180*** **Sample Description:** Rhine Cake **Date Sampled:** 24-Feb-05 12:00
Replicate #: R1 Tri-Flo Bench Test **Date Received:** 25-Feb-05
Batch ID: 2563-13025 **Matrix:** Sediment **Date Processed:** 07-Mar-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	E4.7	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E2.9	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E4.1	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E2.9	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23180*** **Sample Description:** Rhine Cake **Date Sampled:** 24-Feb-05 12:00
Replicate #: R1 Tri-Flo Bench Test **Date Received:** 25-Feb-05
Batch ID: 2563-13025 **Matrix:** Sediment **Date Processed:** 07-Mar-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E3.5	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	26.1	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13018	**Matrix:**	Seawater	**Date Processed:**	28-Feb-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13018	**Matrix:**	Seawater	**Date Processed:**	28-Feb-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	85	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	90	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	97	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	99	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	58	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E3.7	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	7.2	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	26.5	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	76.8	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	55.6	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	57.2	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	67.3	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	35.9	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	10.7	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	49.2	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	E1.5	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	53.5	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	E2.4	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	15.7	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	58.3	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	86	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	96	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	107	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	111	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	59	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E3.3	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	7.5	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	26	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	78.7	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	61.1	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	65.3	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	84.5	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	39.5	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	54.6	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	E1	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	54.7	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	16	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	67	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	90	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	92	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	103	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	100	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	64	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	5.6	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	21.9	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	38.5	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	168	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	455	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	417	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	231	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	411	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	255	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	73.6	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	364	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	7.5	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	270	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	6.2	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	131	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	390	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	R2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	87	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	92	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	99	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	105	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	54	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	5.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	13.3	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	25.6	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	153	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	285	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	273	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	153	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	289	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	256	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	45.5	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	380	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	6.5	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	175	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	13.5	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	84.5	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	392	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	RR-1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13032	**Matrix:**	Sediment	**Date Processed:**	14-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	87	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	94	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	104	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	105	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	62	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	10	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	20.4	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	109	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	937	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	1150	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	545	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	396	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	744	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	953	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	87	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	1450	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	9.7	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	435	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	9.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	105	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	2580	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	84	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	88	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	96	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	104	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	57	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	6.4	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	14.5	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	22.3	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	55.2	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	180	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	144	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	117	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	157	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	91.7	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	25.8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	112	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	13.9	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	110	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	173	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	53.4	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	162	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant	**Date Sampled:**	24-Feb-05	12:00
Replicate #:	R1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13018	**Matrix:**	Seawater	**Date Processed:**	28-Feb-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	88	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	90	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	85	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	87	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	75	% Recovery			1	47 - 110%
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Naphthalene	Total	EPA 625	20.3	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

GENERAL CHEMISTRY
RESULTS

CRG Marine Laboratories, Inc.
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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23177***
Replicate #: R1
Batch ID: 2563-2563

Sample Description: Bulk Rhine
Tri-Flo Bench Test
Matrix: Sediment
Analyst: D. Villegas

Date Sampled: 24-Feb-05 10:00
Date Received: 25-Feb-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	NA	EPA 160.3	54.9	Percent	0.1	0.1	1	04-Mar-05	04-Mar-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23178***
Replicate #: R1
Batch ID: 2563-2563

Sample Description: Rhine at Dilution Tri-Flo Bench Test
Matrix: Slurry
Analyst: T. Howard

Date Sampled: 24-Feb-05 10:00
Date Received: 25-Feb-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	NA	EPA 160.3	ND		0.1	0.1	1	04-Mar-05	04-Mar-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23179***
Replicate #: R1
Batch ID: 2563-2563

Sample Description: Rhine Sand
Tri-Flo Bench Test
Matrix: Sediment
Analyst: D. Villegas

Date Sampled: 24-Feb-05 10:00
Date Received: 25-Feb-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	NA	EPA 160.3	82.2	Percent	0.1	0.1	1	04-Mar-05	04-Mar-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23180***
Replicate #: R1
Batch ID: 2563-2563

Sample Description: Rhine Cake
Tri-Flo Bench Test
Matrix: Sediment
Analyst: D. Villegas

Date Sampled: 24-Feb-05 12:00
Date Received: 25-Feb-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	NA	EPA 160.3	27	Percent	0.1	0.1	1	04-Mar-05	04-Mar-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water

California ELAP Certificate # 2261

QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-11076	**Matrix:**	DI Water		**Date Processed:** 04-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 08-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 6020	ND	µg/dry g	0.005	0.01	1	NA
Molybdenum (Mo)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-11070	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 09-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Antimony (Sb)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-13025	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	89	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	98	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	98	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	89	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-13025	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-13018	**Matrix:**	DI Water		**Date Processed:** 28-Feb-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	83	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	96	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	98	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	76	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-13018	**Matrix:**	DI Water		**Date Processed:** 28-Feb-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B3		Tri-Flo Bench Test		**Date Received:**
Batch ID:	2563-13032	**Matrix:**	DI Water		**Date Processed:** 14-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2560-13025	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-13018	**Matrix:**	DI Water		**Date Processed:** 28-Feb-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B3				**Date Received:**
Batch ID:	2563-13032	**Matrix:**	DI Water		**Date Processed:** 14-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-13025	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-13025	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B2		Tri-Flo Bench Test		**Date Received:**
Batch ID:	2563-13018	**Matrix:**	DI Water		**Date Processed:** 28-Feb-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B2		Tri-Flo Bench Test		**Date Received:**
Batch ID:	2563-13018	**Matrix:**	DI Water		**Date Processed:** 28-Feb-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B3		Tri-Flo Bench Test	**Date Received:**	
Batch ID:	2563-13032	**Matrix:**	DI Water	**Date Processed:**	14-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 625	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B3		Tri-Flo Bench Test	**Date Received:**	
Batch ID:	2563-13032	**Matrix:**	DI Water	**Date Processed:**	14-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 625	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 625	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 625	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-13025	**Matrix:**	DI Water		**Date Processed:** 07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	85	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	89	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	85	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	68	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	68	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-13018	**Matrix:**	DI Water		**Date Processed:** 28-Feb-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero		**Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	83	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	88	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	79	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	74	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	68	% Recovery			1	47 - 110%
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23176***	**Sample Description:**	QAQC Tri-Flo Bench Test	Procedural Blank	**Date Sampled:**
Replicate #:	B3				**Date Received:**
Batch ID:	2563-13032	**Matrix:**	DI Water		**Date Processed:** 14-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 15-Mar-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23176***
Replicate #: B1
Batch ID: 2563-2563

Sample Description: QAQC Procedural Blank
Tri-Flo Bench Test
Matrix: DI Water
Analyst: D. Villegas

Date Sampled:
Date Received:

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	NA	EPA 160.3	ND	Percent	0.1	0.1	1	04-Mar-05	04-Mar-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water

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ACCURACY DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23418***	**Sample Description:**	QAQC	LCM-CRG Seawater	**Date Sampled:**
Replicate #:	LCS1		Tri-Flo Bench Test		**Date Received:**
Batch ID:	2563-11070	**Matrix:**	Seawater		**Date Processed:** 07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 09-Mar-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	71	20 µg/L	44 - 107%	PASS
Arsenic (As)	Total	EPA 1640	86	20 µg/L	71 - 114%	PASS
Beryllium (Be)	Total	EPA 1640	80	20 µg/L	62 - 113%	PASS
Cadmium (Cd)	Total	EPA 1640	81	20 µg/L	69 - 120%	PASS
Chromium (Cr)	Total	EPA 1640	88	20 µg/L	85 - 133%	PASS
Cobalt (Co)	Total	EPA 1640	85	20 µg/L	75 - 124%	PASS
Copper (Cu)	Total	EPA 1640	75	20 µg/L	72 - 128%	PASS
Iron (Fe)	Total	EPA 1640	47	20 µg/L	35 - 97%	PASS
Lead (Pb)	Total	EPA 1640	79	20 µg/L	56 - 116%	PASS
Manganese (Mn)	Total	EPA 1640	112	20 µg/L	64 - 120%	PASS
Mercury (Hg)	Total	EPA 1640	72	1 µg/L	68 - 117%	PASS
Molybdenum (Mo)	Total	EPA 1640	88	20 µg/L	59 - 125%	PASS
Nickel (Ni)	Total	EPA 1640	69	20 µg/L	68 - 118%	PASS
Selenium (Se)	Total	EPA 1640	63	20 µg/L	55 - 110%	PASS
Silver (Ag)	Total	EPA 1640	72	20 µg/L	66 - 125%	PASS
Thallium (Tl)	Total	EPA 1640	109	20 µg/L	66 - 110%	PASS
Tin (Sn)	Total	EPA 1640	90	20 µg/L	68 - 110%	PASS
Titanium (Ti)	Total	EPA 1640	98	20 µg/L	85 - 133%	PASS
Vanadium (V)	Total	EPA 1640	92	20 µg/L	85 - 133%	PASS
Zinc (Zn)	Total	EPA 1640	74	20 µg/L	62 - 108%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23418***	**Sample Description:**	QAQC	LCM-CRG Seawater	**Date Sampled:**		
Replicate #:	LCS2		Tri-Flo Bench Test		**Date Received:**		
Batch ID:	2563-11070	**Matrix:**	Seawater		**Date Processed:**	07-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	09-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	74	20 µg/L	44 - 107%	PASS
Arsenic (As)	Total	EPA 1640	83	20 µg/L	71 - 114%	PASS
Beryllium (Be)	Total	EPA 1640	81	20 µg/L	62 - 113%	PASS
Cadmium (Cd)	Total	EPA 1640	82	20 µg/L	69 - 120%	PASS
Chromium (Cr)	Total	EPA 1640	86	20 µg/L	85 - 133%	PASS
Cobalt (Co)	Total	EPA 1640	83	20 µg/L	75 - 124%	PASS
Copper (Cu)	Total	EPA 1640	77	20 µg/L	72 - 128%	PASS
Iron (Fe)	Total	EPA 1640	45	20 µg/L	35 - 97%	PASS
Lead (Pb)	Total	EPA 1640	81	20 µg/L	56 - 116%	PASS
Manganese (Mn)	Total	EPA 1640	91	20 µg/L	64 - 120%	PASS
Mercury (Hg)	Total	EPA 1640	84	1 µg/L	68 - 117%	PASS
Molybdenum (Mo)	Total	EPA 1640	94	20 µg/L	59 - 125%	PASS
Nickel (Ni)	Total	EPA 1640	70	20 µg/L	68 - 118%	PASS
Selenium (Se)	Total	EPA 1640	64	20 µg/L	55 - 110%	PASS
Silver (Ag)	Total	EPA 1640	77	20 µg/L	66 - 125%	PASS
Thallium (Tl)	Total	EPA 1640	110	20 µg/L	66 - 110%	PASS
Tin (Sn)	Total	EPA 1640	93	20 µg/L	68 - 110%	PASS
Titanium (Ti)	Total	EPA 1640	96	20 µg/L	85 - 133%	PASS
Vanadium (V)	Total	EPA 1640	89	20 µg/L	85 - 133%	PASS
Zinc (Zn)	Total	EPA 1640	70	20 µg/L	62 - 108%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***21841***	**Sample Description:**	QAQC	CRM (ERA540) Lot# D037540	**Date Sampled:**		
Replicate #:	CRM1		Tri-Flo Bench Test		**Date Received:**		
Batch ID:	2563-11076	**Matrix:**	Sediment		**Date Processed:**	04-Mar-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	08-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	NA	EPA 6020	100	163 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	103	131 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	105	135 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	100	65.6 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	96	256 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	100	98.4 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	98	44.3 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	63.4 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	145	13000 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	94	77.2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	121	254 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 6020	129	4.04 µg	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	87	31.5 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	90	75.9 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	104	80.6 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	90	120 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	114	51 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	93	121 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	102	57.9 µg	60 - 140%	PASS
Vanadium (V)	NA	EPA 6020	114	108 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	105	141 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	95	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	97	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	96	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	95	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	93	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	104	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	107	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	111	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	98	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	102	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	103	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	102	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	100	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	99	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	99	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	104	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	103	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	82	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	87	300 ng	25 - 104%	PASS
Endosulfan-I	NA	EPA 8270C	89	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	98	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	81	300 ng	32 - 141%	PASS
Heptachlor	NA	EPA 8270C	97	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	104	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	96	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	98	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	94	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	95	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	88	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	106	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	74	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	108	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	98	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	100	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	91	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	102	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	98	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	103	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	100	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	103	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	102	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	87	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	93	300 ng	25 - 104%	PASS
Endosulfan-I	NA	EPA 8270C	94	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	78	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	97	300 ng	32 - 141%	PASS
Heptachlor	NA	EPA 8270C	101	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	106	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	106	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	113	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	106	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	91	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	91	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	94	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	113	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	104	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	104	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	91	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	81	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	94	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	98	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	106	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	102	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	106	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	104	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05	10:00
Replicate #:	MS1		Tri-Flo Bench Test	**Date Received:**	25-Feb-05	
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	89	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	90	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	97	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	110	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	67	1000 ng	47 - 110%	PASS
Acenaphthene	NA	EPA 8270C	88	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	86	131.2 ng	70 - 130%	PASS
Anthracene	NA	EPA 8270C	121	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	111	114 ng	70 - 130%	PASS
Benzo[a]pyrene	NA	EPA 8270C	320	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	399	131 ng	70 - 130%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	101	117 ng	70 - 130%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	292	131 ng	70 - 130%	FAIL
Chrysene	NA	EPA 8270C	1034	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	110	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	3368	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	103	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	80	117 ng	70 - 130%	PASS
Naphthalene	NA	EPA 8270C	61	132 ng	50 - 120%	PASS
Phenanthrene	NA	EPA 8270C	79	131 ng	70 - 130%	PASS
Pyrene	NA	EPA 8270C	3379	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand	**Date Sampled:**	24-Feb-05 10:00
Replicate #:	MS2		Tri-Flo Bench Test	**Date Received:**	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	90	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	92	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	99	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	103	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	66	1000 ng	47 - 110%	PASS
Acenaphthene	NA	EPA 8270C	95	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	96	131.2 ng	70 - 130%	PASS
Anthracene	NA	EPA 8270C	128	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	1631	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	244	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	305	131 ng	70 - 130%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	115	117 ng	70 - 130%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	250	131 ng	70 - 130%	FAIL
Chrysene	NA	EPA 8270C	4745	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	101	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	12118	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	105	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	84	117 ng	70 - 130%	PASS
Naphthalene	NA	EPA 8270C	57	132 ng	50 - 120%	PASS
Phenanthrene	NA	EPA 8270C	78	131 ng	70 - 130%	PASS
Pyrene	NA	EPA 8270C	13013	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

PRECISION DATA

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23177***	**Sample Description:**	Bulk Rhine Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	NA	EPA 6020	0.51	0.64	23	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	8.55	8.51	0	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	83	83.7	1	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	0.67	0.65	3	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.51	0.52	2	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	32.7	32.4	1	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	7.34	7.19	2	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	176	133	28	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	27000	27000	0	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	58.5	86.1	38	0 - 30%	FAIL
Manganese (Mn)	NA	EPA 6020	266	249	7	0 - 30%	PASS
Mercury (Hg)	NA	EPA 6020	3.08	3.23	5	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	1.49	1.66	11	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	25	17.9	33	0 - 30%	FAIL
Selenium (Se)	NA	EPA 6020	0.66	0.58	13	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	0.04	0.33	157	0 - 30%	FAIL
Strontium (Sr)	NA	EPA 6020	59.6	59.1	1	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	0.28	0.29	4	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	6.76	10.7	45	0 - 30%	FAIL
Titanium (Ti)	NA	EPA 6020	1540	1690	9	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	68.5	67	2	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	131	125	5	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	NA	EPA 6020	1.07	4.24	119	0 - 30%	FAIL
Arsenic (As)	NA	EPA 6020	4.18	4.31	3	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	40.7	58.1	35	0 - 30%	FAIL
Beryllium (Be)	NA	EPA 6020	0.15	0.15	0	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.58	1.06	59	0 - 30%	FAIL
Chromium (Cr)	NA	EPA 6020	8.27	13.9	51	0 - 30%	FAIL
Cobalt (Co)	NA	EPA 6020	2.16	2.36	9	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	50.7	50.8	0	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	8650	9190	6	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	26.3	67.5	88	0 - 30%	FAIL
Manganese (Mn)	NA	EPA 6020	120	125	4	0 - 30%	PASS
Mercury (Hg)	NA	EPA 6020	1.51	1.43	5	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	0.64	0.71	10	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	4.42	4.7	6	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	0.23	0.2	14	0 - 30%	PASS
Strontium (Sr)	NA	EPA 6020	52.5	47.4	10	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	0.1	0.12	18	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	3.15	3.87	21	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	855	941	10	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	18.2	19.7	8	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	69.2	86.2	22	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23180***	**Sample Description:**	Rhine Cake Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 12:00
				Date Received:	25-Feb-05
Batch ID:	2563-11076	**Matrix:**	Sediment	**Date Processed:**	04-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	08-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	NA	EPA 6020	1.5	1.51	1	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	14.4	17.7	21	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	158	209	28	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	1.29	1.63	23	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	5.46	6.73	21	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	68.6	85.6	22	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	12.4	15.1	20	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	281	340	19	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	49500	58500	17	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	114	134	16	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	386	482	22	0 - 30%	PASS
Mercury (Hg)	NA	EPA 6020	7.5	8.89	17	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	2.83	3.38	18	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	31.3	39.2	22	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	1.3	1.62	22	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	0.15	0.36	82	0 - 30%	FAIL
Strontium (Sr)	NA	EPA 6020	118	135	13	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	0.5	0.61	20	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	10.8	13.1	19	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	2430	2950	19	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	129	155	18	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	324	388	18	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23181***	**Sample Description:**	Rhine Decant Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 12:00
				Date Received:	25-Feb-05
Batch ID:	2563-11070	**Matrix:**	Seawater	**Date Processed:**	07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	09-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 µg/L	R2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	3.61	3.59	1	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	8.99	8.69	3	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	0.438	0.435	1	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	0.74	0.76	3	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	0.281	0.276	2	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	0.243	0.239	2	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	5.75	5.86	2	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	1.09	1.09	0	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	63.3	63.5	0	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	13.5	13.8	2	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	0.863	0.852	1	0 - 30%	PASS
Selenium (Se)	Total	EPA 1640	0.282	0.277	2	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	0.295	0.296	0	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	3.35	3.9	15	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	40.9	40.9	0	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	5.96	5.8	3	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23418***	**Sample Description:**	QAQC Tri-Flo Bench Test	LCM-CRG Seawater	**Date Sampled:** **Date Received:**
Batch ID:	2563-11070	**Matrix:**	Seawater		**Date Processed:** 07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 09-Mar-05

CONSTITUENT	FRACTION	METHOD	LCM1 µg/L	LCM2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	0.158	0.163	3	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	1.62	1.65	2	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	0.203	0.224	10	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	0.737	0.777	5	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	0.034	0.034	0	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	0.192	0.222	14	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	1.01	1.2	17	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	0.018	0.018	0	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	0.531	0.532	0	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	10.4	10.7	3	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	0.445	0.444	0	0 - 30%	PASS
Silver (Ag)	Total	EPA 1640	0.232	0.375	47	0 - 30%	FAIL
Tin (Sn)	Total	EPA 1640	0.006	0.008	29	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	0.637	0.79	21	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	1.96	1.91	3	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	2.26	2.21	2	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23418***	**Sample Description:**	QAQC Tri-Flo Bench Test	LCM-CRG Seawater	**Date Sampled:** **Date Received:**
Batch ID:	2563-11070	**Matrix:**	Seawater		**Date Processed:** 07-Mar-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 09-Mar-05

CONSTITUENT	FRACTION	METHOD	LCS1 % Recovery	LCS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	71	74	4	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	86	83	4	0 - 30%	PASS
Beryllium (Be)	Total	EPA 1640	80	81	1	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	81	82	1	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	88	86	2	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	85	83	2	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	75	77	3	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	47	45	4	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	79	81	3	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	112	91	21	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1640	72	84	15	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	88	94	7	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	69	70	1	0 - 30%	PASS
Selenium (Se)	Total	EPA 1640	63	64	2	0 - 30%	PASS
Silver (Ag)	Total	EPA 1640	72	77	7	0 - 30%	PASS
Thallium (Tl)	Total	EPA 1640	109	110	1	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	90	93	3	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	98	96	2	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	92	89	3	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	74	70	6	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	93	98	5	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	98	98	0	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	94	95	1	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	93	96	3	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	9.9	4.1	83	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	95	96	1	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	97	98	1	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	96	94	2	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	95	95	0	0 - 30%	PASS
2,4'-DDD	NA	EPA 8270C	93	88	6	0 - 30%	PASS
2,4'-DDE	NA	EPA 8270C	104	106	2	0 - 30%	PASS
2,4'-DDT	NA	EPA 8270C	107	74	36	0 - 30%	FAIL
4,4'-DDD	NA	EPA 8270C	111	108	3	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	98	98	0	0 - 30%	PASS
4,4'-DDT	NA	EPA 8270C	102	100	2	0 - 30%	PASS
Aldrin	NA	EPA 8270C	103	91	12	0 - 30%	PASS
BHC-alpha	NA	EPA 8270C	102	102	0	0 - 30%	PASS
BHC-beta	NA	EPA 8270C	100	98	2	0 - 30%	PASS
BHC-delta	NA	EPA 8270C	99	103	4	0 - 30%	PASS
BHC-gamma	NA	EPA 8270C	99	100	1	0 - 30%	PASS
Chlordane-alpha	NA	EPA 8270C	104	103	1	0 - 30%	PASS
Chlordane-gamma	NA	EPA 8270C	103	102	1	0 - 30%	PASS
Dieldrin	NA	EPA 8270C	82	87	6	0 - 30%	PASS
Endosulfan Sulfate	NA	EPA 8270C	87	93	7	0 - 30%	PASS
Endosulfan-I	NA	EPA 8270C	89	94	5	0 - 30%	PASS
Endosulfan-II	NA	EPA 8270C	98	78	23	0 - 30%	PASS
Endrin	NA	EPA 8270C	81	97	18	0 - 30%	PASS
Heptachlor	NA	EPA 8270C	97	101	4	0 - 30%	PASS
Heptachlor Epoxide	NA	EPA 8270C	104	106	2	0 - 30%	PASS

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 ng/dry g	R2 ng/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
PCB049	NA	EPA 8270C	2.9	3.2	10	0 - 30%	PASS
PCB052	NA	EPA 8270C	4.1	4.4	7	0 - 30%	PASS
PCB066	NA	EPA 8270C	4.1	4.9	18	0 - 30%	PASS
PCB070	NA	EPA 8270C	3.6	3.4	6	0 - 30%	PASS
PCB095	NA	EPA 8270C	2.8	2.8	0	0 - 30%	PASS
PCB099	NA	EPA 8270C	2	3.2	46	0 - 30%	FAIL
PCB101	NA	EPA 8270C	5.6	5.3	6	0 - 30%	PASS
PCB110	NA	EPA 8270C	4	4.4	10	0 - 30%	PASS
PCB118	NA	EPA 8270C	3.1	4	25	0 - 30%	PASS
PCB149	NA	EPA 8270C	2.7	3.5	26	0 - 30%	PASS
PCB151	NA	EPA 8270C	1.1	1.1	0	0 - 30%	PASS
PCB153	NA	EPA 8270C	3	3.6	18	0 - 30%	PASS
PCB180	NA	EPA 8270C	2.5	2.2	13	0 - 30%	PASS
PCB187	NA	EPA 8270C	1.7	2.6	42	0 - 30%	FAIL
Total Detectable PCBs	NA	EPA 8270C	45.3	61.3	30	0 - 30%	FAIL

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	106	99	7	0 - 30%	PASS
PCB028	NA	EPA 8270C	113	105	7	0 - 30%	PASS
PCB031	NA	EPA 8270C	107	103	4	0 - 30%	PASS
PCB033	NA	EPA 8270C	106	105	1	0 - 30%	PASS
PCB037	NA	EPA 8270C	101	103	2	0 - 30%	PASS
PCB044	NA	EPA 8270C	96	90	6	0 - 30%	PASS
PCB049	NA	EPA 8270C	97	93	4	0 - 30%	PASS
PCB052	NA	EPA 8270C	92	92	0	0 - 30%	PASS
PCB066	NA	EPA 8270C	92	91	1	0 - 30%	PASS
PCB070	NA	EPA 8270C	99	81	20	0 - 30%	PASS
PCB074	NA	EPA 8270C	102	103	1	0 - 30%	PASS
PCB077	NA	EPA 8270C	93	100	7	0 - 30%	PASS
PCB081	NA	EPA 8270C	92	100	8	0 - 30%	PASS
PCB087	NA	EPA 8270C	102	100	2	0 - 30%	PASS
PCB095	NA	EPA 8270C	91	97	6	0 - 30%	PASS
PCB097	NA	EPA 8270C	104	101	3	0 - 30%	PASS
PCB099	NA	EPA 8270C	105	96	9	0 - 30%	PASS
PCB101	NA	EPA 8270C	94	84	11	0 - 30%	PASS
PCB105	NA	EPA 8270C	100	92	8	0 - 30%	PASS
PCB110	NA	EPA 8270C	89	94	5	0 - 30%	PASS
PCB114	NA	EPA 8270C	92	88	4	0 - 30%	PASS
PCB118	NA	EPA 8270C	90	93	3	0 - 30%	PASS
PCB119	NA	EPA 8270C	104	96	8	0 - 30%	PASS
PCB123	NA	EPA 8270C	92	93	1	0 - 30%	PASS
PCB126	NA	EPA 8270C	91	94	3	0 - 30%	PASS

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#: ***23179*** **Sample Description:** Rhine Sand, Tri-Flo Bench Test **Date Sampled:** 24-Feb-05 10:00
Date Received: 25-Feb-05
Batch ID: 2563-13025 **Matrix:** Sediment **Date Processed:** 07-Mar-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 10-Mar-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	94	98	4	0 - 30%	PASS
PCB138	NA	EPA 8270C	113	99	13	0 - 30%	PASS
PCB141	NA	EPA 8270C	88	95	8	0 - 30%	PASS
PCB149	NA	EPA 8270C	99	95	4	0 - 30%	PASS
PCB151	NA	EPA 8270C	97	94	3	0 - 30%	PASS
PCB153	NA	EPA 8270C	102	106	4	0 - 30%	PASS
PCB156	NA	EPA 8270C	92	102	10	0 - 30%	PASS
PCB157	NA	EPA 8270C	98	97	1	0 - 30%	PASS
PCB158	NA	EPA 8270C	101	101	0	0 - 30%	PASS
PCB168+132	NA	EPA 8270C	104	102	2	0 - 30%	PASS
PCB169	NA	EPA 8270C	104	102	2	0 - 30%	PASS
PCB170	NA	EPA 8270C	100	106	6	0 - 30%	PASS
PCB177	NA	EPA 8270C	103	103	0	0 - 30%	PASS
PCB180	NA	EPA 8270C	105	102	3	0 - 30%	PASS
PCB183	NA	EPA 8270C	107	102	5	0 - 30%	PASS
PCB187	NA	EPA 8270C	105	105	0	0 - 30%	PASS
PCB189	NA	EPA 8270C	95	97	2	0 - 30%	PASS
PCB194	NA	EPA 8270C	101	94	7	0 - 30%	PASS
PCB200	NA	EPA 8270C	97	96	1	0 - 30%	PASS
PCB201	NA	EPA 8270C	93	99	6	0 - 30%	PASS
PCB206	NA	EPA 8270C	104	104	0	0 - 30%	PASS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	90	87	3	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	92	92	0	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	103	99	4	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	100	105	5	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	64	54	17	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	5.6	5.8	4	0 - 30%	PASS
Acenaphthylene	NA	EPA 8270C	21.9	13.3	49	0 - 30%	FAIL
Anthracene	NA	EPA 8270C	38.5	25.6	40	0 - 30%	FAIL
Benz[a]anthracene	NA	EPA 8270C	168	153	9	0 - 30%	PASS
Benzo[a]pyrene	NA	EPA 8270C	455	285	46	0 - 30%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	417	273	42	0 - 30%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	231	153	41	0 - 30%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	411	289	35	0 - 30%	FAIL
Chrysene	NA	EPA 8270C	255	256	0	0 - 30%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	73.6	45.5	47	0 - 30%	FAIL
Fluoranthene	NA	EPA 8270C	364	380	4	0 - 30%	PASS
Fluorene	NA	EPA 8270C	7.5	6.5	14	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	270	175	43	0 - 30%	FAIL
Naphthalene	NA	EPA 8270C	6.2	13.5	74	0 - 30%	FAIL
Phenanthrene	NA	EPA 8270C	131	84.5	43	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	390	392	1	0 - 30%	PASS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563***

CRG ID#:	***23179***	**Sample Description:**	Rhine Sand Tri-Flo Bench Test	**Date Sampled:**	24-Feb-05 10:00
				Date Received:	25-Feb-05
Batch ID:	2563-13025	**Matrix:**	Sediment	**Date Processed:**	07-Mar-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	10-Mar-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	89	90	1	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	90	92	2	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	97	99	2	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	110	103	7	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	67	66	2	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	88	95	8	0 - 30%	PASS
Acenaphthylene	NA	EPA 8270C	86	96	11	0 - 30%	PASS
Anthracene	NA	EPA 8270C	121	128	6	0 - 30%	PASS
Benz[a]anthracene	NA	EPA 8270C	111	1631	175	0 - 30%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	320	244	27	0 - 30%	PASS
Benzo[b]fluoranthene	NA	EPA 8270C	399	305	27	0 - 30%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	101	115	13	0 - 30%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	292	250	15	0 - 30%	PASS
Chrysene	NA	EPA 8270C	1034	4745	128	0 - 30%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	110	101	9	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	3368	12118	113	0 - 30%	FAIL
Fluorene	NA	EPA 8270C	103	105	2	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	80	84	5	0 - 30%	PASS
Naphthalene	NA	EPA 8270C	61	57	7	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	79	78	1	0 - 30%	PASS
Pyrene	NA	EPA 8270C	3379	13013	118	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

SUB-CONTRACT LAB REPORT

Project ID: P2563
Client: CRG
Analysis: Grain Size
Matrix: Sediment
Delivered: March 7, 2005

AQUATIC BIOASSAY & CONSULTING LABORATORIES, INC.

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
Bulk Rhine	4-Mar-05	0.00	14.54	63.66	21.80	85.46	0.66	2.04	8.10	42.11	89.37	10.58	8.95	6.95	4.57	3.48	20.68	8.10	6.62	5.60	6.95	7.25	2.19	-0.62	-2.62
Rhine Sand	4-Mar-05	0.00	96.42	3.58	0.00	3.58	52.88	99.72	189.79	328.51	473.45	4.24	3.32	2.39	1.60	1.07	215.26	189.79	206.16	2.21	2.39	2.27	0.86	-0.21	-2.84
Rhine Cake	4-Mar-05	0.00	2.73	70.53	26.75	97.27	0.58	1.66	5.92	18.75	36.03	10.77	9.25	7.41	5.74	4.79	10.23	5.92	6.52	6.62	7.41	7.27	1.75	-0.45	-2.70

*Percentage of the sample retained on a 2 mm sieve.

Project ID: P2563
Client: CRG
Analysis: Grain Size
Matrix: Sediment
Delivered: March 7, 2005

AQUATIC BIOASSAY & CONSULTING LABORATORIES, INC.

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
Bulk Rhine	0.00	0.00	0.00	0.00	0.00	0.00	0.24	1.55	3.34	4.57	4.85	5.03	5.77	7.07	8.49	10.11	10.39	9.50	7.28	6.61	4.45	2.61	2.76	2.89	1.87	0.62	0.00
Rhine Sand	0.00	0.00	0.51	3.17	8.43	18.14	24.76	21.03	12.22	5.43	2.75	1.63	0.99	0.55	0.33	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rhine Cake	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	2.03	3.93	5.78	7.53	9.15	11.25	12.18	11.62	9.10	8.23	5.37	3.04	3.33	3.52	2.33	0.87	0.06

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563
Client Sample ID: Bulk Rhine
AMS Sample ID: 21963

AMS Project Number: 2005-598-04
Date Sampled: 2/24/2005
Date Received: 3/3/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.71	%		0.01	EPA 9060	Sediment	3/11/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563
Client Sample ID: Rhine Sand
AMS Sample ID: 21964

AMS Project Number: 2005-598-04
Date Sampled: 2/24/2005
Date Received: 3/3/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.16	%		0.01	EPA 9060	Sediment	3/11/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563
Client Sample ID: Rhine Cake
AMS Sample ID: 21965

AMS Project Number: 2005-598-04
Date Sampled: 2/24/2005
Date Received: 3/3/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	2.50	%		0.01	EPA 9060	Sediment	3/11/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563

AMS Project No.: 2005-598-04
Date Analyzed: 3/11/2005
Matrix: Sediment
Method: EPA 9060
Batch ID: 031105-01

Continuing Calibration Verification (SRM) Data

AMS Sample ID	SRM Result (%)	SRM Theoretical (%)	Relative % Difference (%)	QC Limits (% RPD)
CC01	4.77	4.80	0.63	<5

TOC Method Blank

AMS Sample ID	Sample Weight (g)	Sample Result (µg C)	TOC (%)	MDL (%)
CB01	0.5667	4.83	ND	0.01

Sample Duplicate Analysis

AMS Sample ID	Sample Result (%)	Replicate Result (%)	Relative % Difference (%)	QC Limits (% RPD)
21965	2.50	2.49	0.40	<25

Samples in Batch (AMS ID): 21963 21978 21982 21986
21964 21979 21983 21987
21965 21980 21984 21988
21977 21981 21985

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Calscience Environmental Laboratories, Inc.

March 07, 2005

Misty Mercier
CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Subject: **Calscience Work Order No.: 05-02-1543**
Client Reference: P2563

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/28/2005 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jason Torres
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Date Received: 02/28/05
Work Order No: 05-02-1543

Project: P2563

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Rhine Decant	**05-02-1543-1**	**02/24/05**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	6.4	0.5	1		mg/L	N/A	02/28/05	EPA 415.1
Carbon, Dissolved Organic	7.7	0.5	1	B	mg/L	N/A	02/28/05	EPA 415.1

Method Blank	**N/A**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	02/28/05	EPA 415.1
Carbon, Dissolved Organic	1.3	0.5	1		mg/L	N/A	02/28/05	EPA 415.1

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Date Received: 02/28/05
Work Order No: 05-02-1543

Project: P2563

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	EPA 415.1	Rhine Decant	02/28/05	N/A	101	102	70-130	1	0-25	
Carbon, Dissolved Organic	EPA 415.1	Rhine Decant	02/28/05	N/A	94	96	70-130	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Date Received: N/A
Work Order No: 05-02-1543

Project: P2563

Matrix : Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Carbon, Total Organic	EPA 415.1	099-05-097-1,848	02/28/05	N/A	10	10	103	80-120	
Carbon, Dissolved Organic	EPA 415.1	099-05-115-334	02/28/05	N/A	10	11	93	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 05-02-1543

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

1543

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
PHONE (310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

TO: CALSCIENCE

Client Name	CRG Marine Laboratories, Inc.
Address	2020 Del Amo Blvd. Suite 200 Torrance, CA 90501
Sampled By	
Project Manager	Misty Mercier
Phone	310 533 5190 x106
FAX	310 533 0211 (direct fax) / 310 533 5003 (main fax)
Email	mmercier@crglabs.com
Project Name/Number	P2563

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	TOC	DOC									
1	Rhine Decant	24-Feb-05	12:00 PM	Water	2	GLASS/HDPE	X	X									
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

page 1 of 1
1 samples total

please email pdf report to mmercier@crglabs.com

RELINQUISHED BY

Signature:	Kathleen M. Burney		
Print:	K. M. BURNEY		
Company:	CRG Marine Laboratories, Inc.		
DATE:	2/28/05	**TIME:**	3:15

RECEIVED BY

Signature:	[illegible]		
Print:	VINCENT LAM		
Company:	CEL		
DATE:	2/28/05	**TIME:**	15:15

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 05 - 0 2 - 1 5 4 3

Cooler 0 of 0

SAMPLE RECEIPT FORM

CLIENT: CRG MARINE LAB. **DATE:** 2/28/05

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
✓ Ambient temperature.

Initial: ✓

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: ✓

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: ✓

COMMENTS:

CHAIN-OF-CUSTODY

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
(310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

LAB PROJECT ID #

Client Name Address	Anchor Environmental One Park Plaza, 600 Irvine, CA. 92614
Sampled By	Cappellino
Project Manager	"
Phone	949-322-8258
FAX	949-833-7151
Email	scappellino@anchorenv.com
Project Name/Number	Tri-Flo Bench Test
P.O. Number	

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	METALS	Pesticides	PCBs	PAHs	TOC	DOC	Grain Size	~~% Moisture~~	% Solids		
1	Bulk Rhine	2/24	1000	SED	1	500 ML	X	X	X	X	X		X		X		
2	Rhine at Dilution	"	1000	Slurry	1	500 ML									X		
3	Rhine SAND	"	1000	SED	1	500 ML	X	X	X	X	X		X		X		
4	Rhine CAKE	"	1200	SED	1	500 ML	X	X	X	X	X		X		X		
5	Rhine Decant	"	1200	water	1	250 ML	X										
6		"			2	1 L		X	X	X							
7		"			1	250 ML					X						
8		"			1	250 ML						X					
9		"			1	~~250 ML~~	~~X~~	~~X~~									
10																	

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

P2503

10-day TAT

RELINQUISHED BY

Signature:	[signature]
Print:	Steve Cappellino
Company:	Anchor Environmental
DATE:	2/24/05 TIME: 1438

RECEIVED BY

Signature:	[signature]
Print:	Chuck Ukona
Company:	CRG
DATE:	2-25-05 TIME: 0937

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

P2563

Target Sample Summary

Sample	Matrix	Metals	PAHs	PCBs	Pesticides	G.S.	% Solids	TOC	DOC
Bulk Rhine	Sediment	x	x	x	x	x	x	x	
Rhine Diluted	Slurry						x		
Rhine Sand	Sediment	x	x	x	x	x	x	x	
Rhine Cake	Slurry	x	x	x	x	x	x	x	
Rhine Decant	Water	x	x	x	x			x	x

Bottle Count:

- Bulk Rhine – one 500ml glass jar
- Rhine Diluted – one 500ml glass jar (analyze as slurry) ~ 90% H_2O
- Rhine Sand - one 500ml glass jar
- Rhine Cake – two 500ml glass jars (need to be filtered and then the **solids only** analyzed)
- Rhine Decant – two 1 L amber glass bottles, one 250 ml HDPE bottle for metals, one 250ml HDOE bottle for TOC, one 250ml glass bottle for DOC

Project Notes:

1. Started with approximately 6-8 gallons of Rhine Channel sediment of unknown moisture content.
2. Diluted with 176 gallons of artificial seawater prepared using Instant Ocean salts to a salinity of 28-30 ppt.

1640 for "seawater"
pers. S. Capellino
2/28/05
— MBr

CRG
Marine Laboratories, Inc.

SAMPLE RECEIPT FORM

CRG Project ID
P25103

CLIENT NAME: Anchor Environmental

DATE RECEIVED: 2-25-05

COURIER INFORMATION

☐ CRG	☑ FEDEX	TRACKING NUMBER	8479 8360 4356
☐ OTHER*	☐ UPS		

TEMPERATURE	
8 °C	☐ BLUE ICE
	☑ WET ICE
	☐ NO ICE

Chain-of-Custody
☑ INCLUDED
☑ SIGNED
☐ NOT INCLUDED

SAMPLE MATRIX
☑ LIQUID
☑ SOLID
☐ OTHER*

CONDITION OF SAMPLES UPON ARRIVAL

	YES	NO*	NA
All sample containers intact and good condition	☑	☐	☐
All samples listed on COC are present	☑	☐	☐
Sample ID on containers consistent with COC	☑	☐	☐
Correct containers used for analyses requested	☑	☐	☐
All samples received within method holding time	☑	☐	☐

*NOTES

COMPLETED BY: C.V.

2020 Del Amo Boulevard Suite 200, Torrance, CA 90501 · (310) 533-5190 · FAX (310) 533-5003

Raw Data Packet 2

Grain size data for Sample ID P2563b collected on July 1, 2005

Project ID: P2563b
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 1, 2005

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
#1 Sandy	0.00	0.00	0.56	5.63	28.37	35.63	13.65	4.17	2.09	1.39	1.16	1.09	1.10	1.08	0.99	0.91	0.74	0.58	0.42	0.35	0.10	0.00	0.00	0.00	0.00	0.00	0.00
#2 Black	0.00	0.00	0.00	0.04	0.77	3.13	6.38	7.84	8.67	9.02	8.81	8.54	8.37	7.82	6.84	6.09	4.87	3.78	2.63	2.22	1.44	0.87	0.82	0.72	0.34	0.01	0.00

Project ID: P2563b
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 1, 2005

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
#1 Sandy	27-Jun-05	0.00	92.64	6.91	0.45	7.36	20.98	174.66	304.55	443.64	536.32	5.58	2.51	1.71	1.16	0.89	303.55	304.55	319.73	1.71	1.71	1.64	0.67	0.01	-4.48
#2 Black	27-Jun-05	0.00	44.65	48.94	6.41	55.35	2.23	6.92	35.68	137.71	235.09	8.82	7.18	4.81	2.85	2.08	67.29	35.68	74.14	3.89	4.81	3.75	2.16	-0.42	-2.56

*Percentage of the sample retained on a 2 mm sieve.

Raw Data Packet 3

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs LARE Sand and Fines collected on June 23, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

July 1, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563b
Anchor Project: LARE Sediment Separation

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your LARE Sediment Separation project. According to the chain-of-custody, 2 samples were received intact and cool at CRG on June 23, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 6020
- Chlorinated Pesticides By GCMS Using EPA Method 8270
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 8270
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 8270

Grain Size analysis was subcontracted to another laboratory, results are included.

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-12022	**Matrix:**	Sediment	**Date Processed:**	24-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jun-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Arsenic (As)	NA	EPA 6020	1.34	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.87	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	5.99	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	5.35	µg/dry g	0.025	0.05	1	NA
Lead (Pb)	NA	EPA 6020	8.36	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 247.5	0.0459	µg/dry g	0.00001	0.00005	1	NA
Nickel (Ni)	NA	EPA 6020	5.74	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.26	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	32	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-12022	**Matrix:**	Sediment	**Date Processed:**	24-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jun-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Arsenic (As)	NA	EPA 6020	1.1	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.19	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	7.19	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	7.81	µg/dry g	0.025	0.05	1	NA
Lead (Pb)	NA	EPA 6020	32.2	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 247.5	0.0451	µg/dry g	0.00001	0.00005	1	NA
Nickel (Ni)	NA	EPA 6020	5.06	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.2	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	42.2	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-12022	**Matrix:**	Sediment	**Date Processed:**	24-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jun-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Arsenic (As)	NA	EPA 6020	3.12	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.76	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	20.4	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	32.8	µg/dry g	0.025	0.05	1	NA
Lead (Pb)	NA	EPA 6020	41.6	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 247.5	0.106	µg/dry g	0.00001	0.00005	1	NA
Nickel (Ni)	NA	EPA 6020	14.4	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.56	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	150	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-12022	**Matrix:**	Sediment	**Date Processed:**	24-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jun-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Arsenic (As)	NA	EPA 6020	3.1	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.73	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	21.2	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	33.4	µg/dry g	0.025	0.05	1	NA
Lead (Pb)	NA	EPA 6020	39.5	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 247.5	0.0917	µg/dry g	0.00001	0.00005	1	NA
Nickel (Ni)	NA	EPA 6020	14.2	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.61	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	152	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CHLORINATED PESTICIDE RESULTS

CRG Marine Laboratories, Inc.
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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	68	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	76	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	91	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	84	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E1.2	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	66	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	74	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	83	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	75	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E3.1	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E2.9	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	7.8	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	88	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	78	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	85	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	77	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E4.1	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	8.6	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E4.2	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E3.8	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

CRG Marine Laboratories, Inc.
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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	77	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	92	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	113	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	117	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	63	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	E1.2	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	9	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	10.2	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	12.1	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	E4.8	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	12.3	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	20.5	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	6.5	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	E1.5	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	41.4	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	78	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	92	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	120	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	126	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	65	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	E2.4	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	12	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	28.2	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	26.4	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	29.5	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	9.7	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	41	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	7.9	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	47.9	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	21.8	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	80.6	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	76	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	92	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	115	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	126	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	60	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	E3.4	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	13.8	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	63.3	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	95	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	99	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	148	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	48.4	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	136	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	26.8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	191	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	9.5	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	96.6	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	7.3	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	63	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	203	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

AROCLOR-BASED PCB RESULTS

CRG Marine Laboratories, Inc.
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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	414	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	870	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CONGENER-BASED PCB RESULTS

CRG Marine Laboratories, Inc.
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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#: ***25952*** **Sample Description:** LARE Bulk Material 6-23-05 Sand LARE Sediment Separation **Date Sampled:** 23-Jun-05 14:30
Replicate #: R1 **Date Received:** 23-Jun-05
Batch ID: 2563-14018 **Matrix:** Sediment **Date Processed:** 27-Jun-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** S. Botero **Date Analyzed:** 01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	E1.1	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	E2.4	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	E1.2	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	6.5	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#: ***25952*** **Sample Description:** LARE Bulk Material 6-23-05 Sand LARE Sediment Separation **Date Sampled:** 23-Jun-05 14:30
Replicate #: R2 **Date Received:** 23-Jun-05
Batch ID: 2563-14018 **Matrix:** Sediment **Date Processed:** 27-Jun-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** S. Botero **Date Analyzed:** 01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	14.6	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	26	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	21.4	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	18.6	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	12.5	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	32.7	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	31.8	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	59	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	38.6	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	66.3	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	23	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	28.7	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	63.7	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	57.3	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	38.4	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	1116	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	28.1	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	107	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	90.1	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	140	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	22	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	73.7	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	17	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	91.7	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	9.6	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	11.2	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	33.6	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	20.9	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	24.8	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	12.3	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	46.5	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	13.3	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	21.1	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	11.5	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	2427.9	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#: ***25953*** **Sample Description:** LARE Bulk Material 6-23-05 Fines LARE Sediment Separation **Date Sampled:** 23-Jun-05 14:30
Replicate #: R1 **Date Received:** 23-Jun-05
Batch ID: 2563-14018 **Matrix:** Sediment **Date Processed:** 27-Jun-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** S. Botero **Date Analyzed:** 01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	R1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	9.1	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	15.4	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

CRG Marine Laboratories, Inc.
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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25951***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B1		LARE Sediment Separation	**Date Received:**	
Batch ID:	2563-14018	**Matrix:**	DI Water	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	64	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	68	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	69	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	64	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25951***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B1		LARE Sediment Separation	**Date Received:**	
Batch ID:	2563-14018	**Matrix:**	DI Water	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25951***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B1		LARE Sediment Separation	**Date Received:**	
Batch ID:	2563-14018	**Matrix:**	DI Water	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	72	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	83	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	86	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	87	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	61	% Recovery			1	47 - 110%
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25951***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B1		LARE Sediment Separation	**Date Received:**	
Batch ID:	2563-14018	**Matrix:**	DI Water	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#: ***25951*** **Sample Description:** QAQC Procedural Blank **Date Sampled:**
Replicate #: B1 LARE Sediment Separation **Date Received:**
Batch ID: 2563-14018 **Matrix:** DI Water **Date Processed:** 27-Jun-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** S. Botero **Date Analyzed:** 01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25951***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B1		LARE Sediment Separation	**Date Received:**	
Batch ID:	2563-14018	**Matrix:**	DI Water	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25951***	**Sample Description:**	QAQC Procedural Blank	**Date Sampled:**	
Replicate #:	B1		LARE Sediment Separation	**Date Received:**	
Batch ID:	2563-12022	**Matrix:**	DI Water	**Date Processed:**	24-Jun-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jun-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Arsenic (As)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Lead (Pb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 247.5	ND	µg/dry g	0.00001	0.00005	1	NA
Nickel (Ni)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

ACCURACY DATA

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-120222	**Matrix:**	Sediment	**Date Processed:**	24-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jun-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Arsenic (As)	NA	EPA 6020	91	2 µg	65 - 135%	PASS
Cadmium (Cd)	NA	EPA 6020	94	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	95	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	95	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	91	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	91	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	97	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	85	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-120222	**Matrix:**	Sediment	**Date Processed:**	24-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jun-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Arsenic (As)	NA	EPA 6020	92	2 µg	65 - 135%	PASS
Cadmium (Cd)	NA	EPA 6020	93	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	97	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	96	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	94	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	91	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	99	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	108	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	109	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	68	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	68	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	53	160 ng	65 - 135%	FAIL
PCB049	NA	EPA 8270C	72	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	74	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	73	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	72	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	76	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	80	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	62	160 ng	65 - 135%	FAIL
PCB097	NA	EPA 8270C	57	160 ng	65 - 135%	FAIL
PCB099	NA	EPA 8270C	62	160 ng	65 - 135%	FAIL
PCB101	NA	EPA 8270C	40	160 ng	65 - 135%	FAIL
PCB105	NA	EPA 8270C	54	160 ng	65 - 135%	FAIL
PCB110	NA	EPA 8270C	44	160 ng	65 - 135%	FAIL
PCB114	NA	EPA 8270C	81	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	43	160 ng	65 - 135%	FAIL
PCB119	NA	EPA 8270C	70	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	68	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	79	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

25952 MS1

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	73	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	47	160 ng	65 - 135%	FAIL
PCB141	NA	EPA 8270C	80	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	57	160 ng	65 - 135%	FAIL
PCB151	NA	EPA 8270C	73	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	63	160 ng	65 - 135%	FAIL
PCB156	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	73	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	81	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	72	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	76	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	72	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	71	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	63	160 ng	65 - 135%	FAIL
PCB183	NA	EPA 8270C	74	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	78	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	51	160 ng	65 - 135%	FAIL
PCB200	NA	EPA 8270C	66	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	81	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	72	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	69	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	55	160 ng	65 - 135%	FAIL
PCB049	NA	EPA 8270C	70	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	77	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	72	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	77	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	79	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	62	160 ng	65 - 135%	FAIL
PCB097	NA	EPA 8270C	62	160 ng	65 - 135%	FAIL
PCB099	NA	EPA 8270C	60	160 ng	65 - 135%	FAIL
PCB101	NA	EPA 8270C	42	160 ng	65 - 135%	FAIL
PCB105	NA	EPA 8270C	61	160 ng	65 - 135%	FAIL
PCB110	NA	EPA 8270C	48	160 ng	65 - 135%	FAIL
PCB114	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	52	160 ng	65 - 135%	FAIL
PCB119	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	82	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

25952 MS2

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	43	320 ng	65 - 135%	FAIL
PCB138	NA	EPA 8270C	53	160 ng	65 - 135%	FAIL
PCB141	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	62	160 ng	65 - 135%	FAIL
PCB151	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	62	160 ng	65 - 135%	FAIL
PCB156	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	78	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	80	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	76	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	71	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	65	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	77	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	74	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	60	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	64	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	72	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	67	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	115	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	90	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	101	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	104	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	97	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	92	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	81	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	78	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	91	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	82	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	101	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	87	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	80	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	62	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	95	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	69	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	90	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	101	300 ng	32 - 141%	PASS
Heptachlor	NA	EPA 8270C	78	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	81	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS2		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	62	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	68	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	89	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	73	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	119	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	87	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	96	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	111	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	95	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	82	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	78	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	80	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	95	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	85	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	95	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	83	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	87	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	69	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	96	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	75	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	82	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	103	300 ng	32 - 141%	PASS
Heptachlor	NA	EPA 8270C	80	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	75	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05	14:30
Replicate #:	MS1		LARE Sediment Separation	**Date Received:**	23-Jun-05	
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	68	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	82	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	97	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	106	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	60	1000 ng	47 - 110%	PASS
Acenaphthene	NA	EPA 8270C	85	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	80	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	105	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	90	114 ng	70 - 130%	PASS
Benzo[a]pyrene	NA	EPA 8270C	50	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	67	131 ng	70 - 130%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	72	117 ng	70 - 130%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	114	131 ng	70 - 130%	PASS
Chrysene	NA	EPA 8270C	12	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	133	98.6 ng	70 - 130%	FAIL
Fluoranthene	NA	EPA 8270C	44	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	103	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	82	117 ng	70 - 130%	PASS
Naphthalene	NA	EPA 8270C	53	132 ng	50 - 120%	PASS
Phenanthrene	NA	EPA 8270C	81	131 ng	70 - 130%	PASS
Pyrene	NA	EPA 8270C	0	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand	**Date Sampled:**	23-Jun-05 14:30
Replicate #:	MS2		LARE Sediment Separation	**Date Received:**	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	69	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	81	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	97	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	102	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	60	1000 ng	47 - 110%	PASS
Acenaphthene	NA	EPA 8270C	80	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	91	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	90	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	179	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	143	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	123	131 ng	70 - 130%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	130	117 ng	70 - 130%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	116	131 ng	70 - 130%	PASS
Chrysene	NA	EPA 8270C	110	132 ng	70 - 130%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	122	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	169	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	96	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	162	117 ng	70 - 130%	FAIL
Naphthalene	NA	EPA 8270C	61	132 ng	50 - 120%	PASS
Phenanthrene	NA	EPA 8270C	155	131 ng	70 - 130%	FAIL
Pyrene	NA	EPA 8270C	222	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

PRECISION DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05	14:30
Batch ID:	2563-12022	**Matrix:**	Sediment	**Date Received:**	23-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	24-Jun-05	
				Date Analyzed:	27-Jun-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Arsenic (As)	NA	EPA 6020	1.34	1.1	20	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.87	0.19	128	0 - 30%	FAIL
Chromium (Cr)	NA	EPA 6020	5.99	7.19	18	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	5.35	7.81	37	0 - 30%	FAIL
Lead (Pb)	NA	EPA 6020	8.36	32.2	118	0 - 30%	FAIL
Mercury (Hg)	NA	EPA 247.5	0.0459	0.0451	2	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	5.74	5.06	13	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	0.26	0.2	26	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	32	42.2	27	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25953***	**Sample Description:**	LARE Bulk Material 6-23-05 Fines LARE Sediment Separation	**Date Sampled:**	23-Jun-05	14:30
Batch ID:	2563-12022	**Matrix:**	Sediment	**Date Received:**	23-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	24-Jun-05	
				Date Analyzed:	27-Jun-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Arsenic (As)	NA	EPA 6020	3.12	3.1	1	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.76	0.73	4	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	20.4	21.2	4	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	32.8	33.4	2	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	41.6	39.5	5	0 - 30%	PASS
Mercury (Hg)	NA	EPA 247.5	0.106	0.0917	14	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	14.4	14.2	1	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	0.56	0.61	9	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	150	152	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05	14:30
Batch ID:	2563-120222	**Matrix:**	Sediment	**Date Received:**	23-Jun-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	24-Jun-05	
				Date Analyzed:	28-Jun-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Arsenic (As)	NA	EPA 6020	91	92	1	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	94	93	1	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	95	97	2	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	95	96	1	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	91	94	3	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	91	91	0	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	97	99	2	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	85	108	24	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	106	109	3	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	R1 ng/dry g	R2 ng/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
PCB028	NA	EPA 8270C	1.1	26	184	0 - 30%	FAIL
PCB049	NA	EPA 8270C	1.8	31.8	179	0 - 30%	FAIL
PCB052	NA	EPA 8270C	2.4	59	184	0 - 30%	FAIL
PCB070	NA	EPA 8270C	1.2	66.3	193	0 - 30%	FAIL
Total Detectable PCBs	NA	EPA 8270C	6.5	2427.9	199	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	68	72	6	0 - 30%	PASS
PCB028	NA	EPA 8270C	90	89	1	0 - 30%	PASS
PCB031	NA	EPA 8270C	68	69	1	0 - 30%	PASS
PCB033	NA	EPA 8270C	87	98	12	0 - 30%	PASS
PCB037	NA	EPA 8270C	92	93	1	0 - 30%	PASS
PCB044	NA	EPA 8270C	53	55	4	0 - 30%	PASS
PCB049	NA	EPA 8270C	72	70	3	0 - 30%	PASS
PCB052	NA	EPA 8270C	74	75	1	0 - 30%	PASS
PCB066	NA	EPA 8270C	73	77	5	0 - 30%	PASS
PCB070	NA	EPA 8270C	72	72	0	0 - 30%	PASS
PCB074	NA	EPA 8270C	76	77	1	0 - 30%	PASS
PCB077	NA	EPA 8270C	86	88	2	0 - 30%	PASS
PCB081	NA	EPA 8270C	80	82	2	0 - 30%	PASS
PCB087	NA	EPA 8270C	75	79	5	0 - 30%	PASS
PCB095	NA	EPA 8270C	62	62	0	0 - 30%	PASS
PCB097	NA	EPA 8270C	57	62	8	0 - 30%	PASS
PCB099	NA	EPA 8270C	62	60	3	0 - 30%	PASS
PCB101	NA	EPA 8270C	40	42	5	0 - 30%	PASS
PCB105	NA	EPA 8270C	54	61	12	0 - 30%	PASS
PCB110	NA	EPA 8270C	44	48	9	0 - 30%	PASS
PCB114	NA	EPA 8270C	81	82	1	0 - 30%	PASS
PCB118	NA	EPA 8270C	43	52	19	0 - 30%	PASS
PCB119	NA	EPA 8270C	70	75	7	0 - 30%	PASS
PCB123	NA	EPA 8270C	68	75	10	0 - 30%	PASS
PCB126	NA	EPA 8270C	79	82	4	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	73	43	52	0 - 30%	FAIL
PCB138	NA	EPA 8270C	47	53	12	0 - 30%	PASS
PCB141	NA	EPA 8270C	80	90	12	0 - 30%	PASS
PCB149	NA	EPA 8270C	57	62	8	0 - 30%	PASS
PCB151	NA	EPA 8270C	73	82	12	0 - 30%	PASS
PCB153	NA	EPA 8270C	63	62	2	0 - 30%	PASS
PCB156	NA	EPA 8270C	95	75	24	0 - 30%	PASS
PCB157	NA	EPA 8270C	73	78	7	0 - 30%	PASS
PCB158	NA	EPA 8270C	81	80	1	0 - 30%	PASS
PCB168+132	NA	EPA 8270C	72	76	5	0 - 30%	PASS
PCB169	NA	EPA 8270C	76	71	7	0 - 30%	PASS
PCB170	NA	EPA 8270C	72	82	13	0 - 30%	PASS
PCB177	NA	EPA 8270C	71	65	9	0 - 30%	PASS
PCB180	NA	EPA 8270C	63	77	20	0 - 30%	PASS
PCB183	NA	EPA 8270C	74	82	10	0 - 30%	PASS
PCB187	NA	EPA 8270C	78	84	7	0 - 30%	PASS
PCB189	NA	EPA 8270C	82	84	2	0 - 30%	PASS
PCB194	NA	EPA 8270C	51	82	47	0 - 30%	FAIL
PCB200	NA	EPA 8270C	66	82	22	0 - 30%	PASS
PCB201	NA	EPA 8270C	93	75	21	0 - 30%	PASS
PCB206	NA	EPA 8270C	81	74	9	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	68	66	3	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	76	74	3	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	91	83	9	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	84	75	11	0 - 30%	PASS
4,4'-DDD	NA	EPA 8270C	2.1	3.1	38	0 - 30%	FAIL
4,4'-DDE	NA	EPA 8270C	1.2	2.9	83	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	77	78	1	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	92	92	0	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	113	120	6	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	117	126	7	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	63	65	3	0 - 30%	PASS
Anthracene	NA	EPA 8270C	1.2	2.4	67	0 - 30%	FAIL
Benz[a]anthracene	NA	EPA 8270C	4.9	12	84	0 - 30%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	9	28.2	103	0 - 30%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	10.2	26.4	89	0 - 30%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	12.1	29.5	84	0 - 30%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	4.8	9.7	68	0 - 30%	FAIL
Chrysene	NA	EPA 8270C	12.3	41	108	0 - 30%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	2.8	7.9	95	0 - 30%	FAIL
Fluoranthene	NA	EPA 8270C	20.5	47.9	80	0 - 30%	FAIL
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	6.5	21.8	108	0 - 30%	FAIL
Naphthalene	NA	EPA 8270C	1.5	1.4	7	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	3.6	4.9	31	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	41.4	80.6	64	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	60	62	3	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	64	68	6	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	72	89	21	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	67	73	9	0 - 30%	PASS
2,4'-DDD	NA	EPA 8270C	115	119	3	0 - 30%	PASS
2,4'-DDE	NA	EPA 8270C	90	87	3	0 - 30%	PASS
2,4'-DDT	NA	EPA 8270C	101	96	5	0 - 30%	PASS
4,4'-DDD	NA	EPA 8270C	104	111	7	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	97	95	2	0 - 30%	PASS
4,4'-DDT	NA	EPA 8270C	92	82	11	0 - 30%	PASS
Aldrin	NA	EPA 8270C	81	78	4	0 - 30%	PASS
BHC-alpha	NA	EPA 8270C	78	80	3	0 - 30%	PASS
BHC-beta	NA	EPA 8270C	91	95	4	0 - 30%	PASS
BHC-delta	NA	EPA 8270C	82	85	4	0 - 30%	PASS
BHC-gamma	NA	EPA 8270C	101	95	6	0 - 30%	PASS
Chlordane-alpha	NA	EPA 8270C	87	83	5	0 - 30%	PASS
Chlordane-gamma	NA	EPA 8270C	80	87	8	0 - 30%	PASS
Dieldrin	NA	EPA 8270C	62	69	11	0 - 30%	PASS
Endosulfan Sulfate	NA	EPA 8270C	95	96	1	0 - 30%	PASS
Endosulfan-I	NA	EPA 8270C	69	75	8	0 - 30%	PASS
Endosulfan-II	NA	EPA 8270C	90	82	9	0 - 30%	PASS
Endrin	NA	EPA 8270C	101	103	2	0 - 30%	PASS
Heptachlor	NA	EPA 8270C	78	80	3	0 - 30%	PASS
Heptachlor Epoxide	NA	EPA 8270C	81	75	8	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563b***

CRG ID#:	***25952***	**Sample Description:**	LARE Bulk Material 6-23-05 Sand LARE Sediment Separation	**Date Sampled:**	23-Jun-05 14:30
				Date Received:	23-Jun-05
Batch ID:	2563-14018	**Matrix:**	Sediment	**Date Processed:**	27-Jun-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	S. Botero	**Date Analyzed:**	01-Jul-05

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	68	69	1	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	82	81	1	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	97	97	0	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	106	102	4	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	60	60	0	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	85	80	6	0 - 30%	PASS
Acenaphthylene	NA	EPA 8270C	80	91	13	0 - 30%	PASS
Anthracene	NA	EPA 8270C	105	90	15	0 - 30%	PASS
Benz[a]anthracene	NA	EPA 8270C	90	179	66	0 - 30%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	50	143	96	0 - 30%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	67	123	59	0 - 30%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	72	130	57	0 - 30%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	114	116	2	0 - 30%	PASS
Chrysene	NA	EPA 8270C	12	110	161	0 - 30%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	133	122	9	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	44	169	117	0 - 30%	FAIL
Fluorene	NA	EPA 8270C	103	96	7	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	82	162	66	0 - 30%	FAIL
Naphthalene	NA	EPA 8270C	53	61	14	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	81	155	63	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	0	222	200	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

SUB-CONTRACT LAB REPORT

CHAIN-OF-CUSTODY

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
PHONE (310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

Client Name	ANCHOR ENVIRONMENTAL
Address	
Sampled By	JIM FIELDS
Project Manager	STEVE CAPPALLINO
Phone	949 333 7150
FAX	
Email	
Project Name/Number	LARE SEDIMENT SEPERATION
P.O. Number	

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type
1	#1 SANDY	6/23	2:30pm	SED	1	GLASS
2	#2 BLACK	6/23	2:30pm	SED	1	GLASS
3						
4						
5						
6						
7						
8						
9						
10						

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

5 DAY (BUS.) TAT REQUESTED

CRG Project ID: P256036 (lab use only)

CRG Sample ID: _____ (lab use only)

RELINQUISHED BY			
Signature:	Jim Fields		
Print:	JIM FIELDS		
Company:	USACE		
DATE:	6/23	TIME:	3:00

RECEIVED BY			
Signature:	[illegible]		
Print:	MARK D. BAKER		
Company:	CRG		
DATE:	3/23	TIME:	3:00

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

Raw Data Packet 4

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-8-LARE RAW, 7-8-WBF1-1, 7-8-WBF1-50, 7-8-Slurry-1, QAQC, 7-8-D-1, 7-8-CS-1, 7-8-FS-1, collected on July 8, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

August 1, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563c
Anchor Project: LARE Sediment Separation

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your LARE Sediment Separation project. According to the chain-of-custody, 3 sediment and 4 seawater samples were received intact and cool at CRG on July 8, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 1640, 200.8, 6020
- Chlorinated Pesticides By GCMS Using EPA Method 625 & 8270
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 625 & 8270
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 625 & 8270

Grain Size analysis was subcontracted to another laboratory, results are included.

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	21.4	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	0.131	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	0.866	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.031	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.295	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	1.79	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	56.3	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.207	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	20.8	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1631E	0.00401	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 1640	10.9	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.67	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.06	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	E0.005	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	E0.007	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	1.59	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	2.19	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	8.99	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	21	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	0.12	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	0.937	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.031	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.315	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	1.76	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	59.9	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.201	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	21.6	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1631E	0.00391	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 1640	10.6	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.67	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	E0.008	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	1.66	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	2.24	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	9.39	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	764	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	2.95	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	0.669	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	0.028	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.123	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	2.01	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	1.51	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	4.22	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	980	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	5.51	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	279	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1631E	0.01208	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 1640	41.3	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	5.04	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.116	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	63.9	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	4.39	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	23.1	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 200.8	79500	µg/L	1	5	1	NA
Antimony (Sb)	Total	EPA 200.8	8.62	µg/L	0.1	0.5	1	NA
Arsenic (As)	Total	EPA 200.8	7.87	µg/L	0.1	0.5	1	NA
Barium (Ba)	Total	EPA 200.8	1020	µg/L	0.1	0.5	1	NA
Beryllium (Be)	Total	EPA 200.8	5.28	µg/L	0.1	0.5	1	NA
Cadmium (Cd)	Total	EPA 200.8	46.4	µg/L	0.1	0.2	1	NA
Chromium (Cr)	Total	EPA 200.8	237	µg/L	0.1	0.5	1	NA
Cobalt (Co)	Total	EPA 200.8	E0.12	µg/L	0.1	0.5	1	NA
Copper (Cu)	Total	EPA 200.8	706	µg/L	0.1	0.5	1	NA
Iron (Fe)	Total	EPA 200.8	162000	µg/L	1	5	1	NA
Lead (Pb)	Total	EPA 200.8	759	µg/L	0.05	0.1	1	NA
Manganese (Mn)	Total	EPA 200.8	2290	µg/L	0.1	0.5	1	NA
Mercury (Hg)	Total	EPA 1631E	1.38	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 200.8	47.3	µg/L	0.1	0.5	1	NA
Nickel (Ni)	Total	EPA 200.8	207	µg/L	0.1	0.5	1	NA
Selenium (Se)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Silver (Ag)	Total	EPA 200.8	2.73	µg/L	0.1	0.2	1	NA
Strontium (Sr)	Total	EPA 200.8	8490	µg/L	0.5	1	1	NA
Thallium (Tl)	Total	EPA 200.8	2.52	µg/L	0.1	0.5	1	NA
Tin (Sn)	Total	EPA 200.8	13.9	µg/L	0.1	0.5	1	NA
Titanium (Ti)	Total	EPA 200.8	1950	µg/L	0.1	0.5	1	NA
Vanadium (V)	Total	EPA 200.8	307	µg/L	0.1	0.5	1	NA
Zinc (Zn)	Total	EPA 200.8	3240	µg/L	0.1	0.5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 200.8	79700	µg/L	1	5	1	NA
Antimony (Sb)	Total	EPA 200.8	1.54	µg/L	0.1	0.5	1	NA
Arsenic (As)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Barium (Ba)	Total	EPA 200.8	1010	µg/L	0.1	0.5	1	NA
Beryllium (Be)	Total	EPA 200.8	6.1	µg/L	0.1	0.5	1	NA
Cadmium (Cd)	Total	EPA 200.8	46.1	µg/L	0.1	0.2	1	NA
Chromium (Cr)	Total	EPA 200.8	236	µg/L	0.1	0.5	1	NA
Cobalt (Co)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Copper (Cu)	Total	EPA 200.8	686	µg/L	0.1	0.5	1	NA
Iron (Fe)	Total	EPA 200.8	164000	µg/L	1	5	1	NA
Lead (Pb)	Total	EPA 200.8	745	µg/L	0.05	0.1	1	NA
Manganese (Mn)	Total	EPA 200.8	2300	µg/L	0.1	0.5	1	NA
Mercury (Hg)	Total	EPA 1631E	1.23	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 200.8	46.2	µg/L	0.1	0.5	1	NA
Nickel (Ni)	Total	EPA 200.8	206	µg/L	0.1	0.5	1	NA
Selenium (Se)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Silver (Ag)	Total	EPA 200.8	3.98	µg/L	0.1	0.2	1	NA
Strontium (Sr)	Total	EPA 200.8	8490	µg/L	0.5	1	1	NA
Thallium (Tl)	Total	EPA 200.8	2.51	µg/L	0.1	0.5	1	NA
Tin (Sn)	Total	EPA 200.8	14	µg/L	0.1	0.5	1	NA
Titanium (Ti)	Total	EPA 200.8	1990	µg/L	0.1	0.5	1	NA
Vanadium (V)	Total	EPA 200.8	302	µg/L	0.1	0.5	1	NA
Zinc (Zn)	Total	EPA 200.8	3230	µg/L	0.1	0.5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 200.8	114000	µg/L	1	5	1	NA
Antimony (Sb)	Total	EPA 200.8	2.8	µg/L	0.1	0.5	1	NA
Arsenic (As)	Total	EPA 200.8	29.3	µg/L	0.1	0.5	1	NA
Barium (Ba)	Total	EPA 200.8	1280	µg/L	0.1	0.5	1	NA
Beryllium (Be)	Total	EPA 200.8	8.31	µg/L	0.1	0.5	1	NA
Cadmium (Cd)	Total	EPA 200.8	60.8	µg/L	0.1	0.2	1	NA
Chromium (Cr)	Total	EPA 200.8	349	µg/L	0.1	0.5	1	NA
Cobalt (Co)	Total	EPA 200.8	29.1	µg/L	0.1	0.5	1	NA
Copper (Cu)	Total	EPA 200.8	1180	µg/L	0.1	0.5	1	NA
Iron (Fe)	Total	EPA 200.8	251000	µg/L	1	5	1	NA
Lead (Pb)	Total	EPA 200.8	1310	µg/L	0.05	0.1	1	NA
Manganese (Mn)	Total	EPA 200.8	3580	µg/L	0.1	0.5	1	NA
Mercury (Hg)	Total	EPA 1631E	2.35	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 200.8	42	µg/L	0.1	0.5	1	NA
Nickel (Ni)	Total	EPA 200.8	357	µg/L	0.1	0.5	1	NA
Selenium (Se)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Silver (Ag)	Total	EPA 200.8	3.45	µg/L	0.1	0.2	1	NA
Strontium (Sr)	Total	EPA 200.8	8950	µg/L	0.5	1	1	NA
Thallium (Tl)	Total	EPA 200.8	2.85	µg/L	0.1	0.5	1	NA
Tin (Sn)	Total	EPA 200.8	17.9	µg/L	0.1	0.5	1	NA
Titanium (Ti)	Total	EPA 200.8	908	µg/L	0.1	0.5	1	NA
Vanadium (V)	Total	EPA 200.8	482	µg/L	0.1	0.5	1	NA
Zinc (Zn)	Total	EPA 200.8	5600	µg/L	0.1	0.5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 200.8	11600	µg/L	1	5	1	NA
Antimony (Sb)	Total	EPA 200.8	3.22	µg/L	0.1	0.5	1	NA
Arsenic (As)	Total	EPA 200.8	80.1	µg/L	0.1	0.5	1	NA
Barium (Ba)	Total	EPA 200.8	1280	µg/L	0.1	0.5	1	NA
Beryllium (Be)	Total	EPA 200.8	8.48	µg/L	0.1	0.5	1	NA
Cadmium (Cd)	Total	EPA 200.8	63.3	µg/L	0.1	0.2	1	NA
Chromium (Cr)	Total	EPA 200.8	360	µg/L	0.1	0.5	1	NA
Cobalt (Co)	Total	EPA 200.8	30.4	µg/L	0.1	0.5	1	NA
Copper (Cu)	Total	EPA 200.8	1190	µg/L	0.1	0.5	1	NA
Iron (Fe)	Total	EPA 200.8	257000	µg/L	1	5	1	NA
Lead (Pb)	Total	EPA 200.8	1310	µg/L	0.05	0.1	1	NA
Manganese (Mn)	Total	EPA 200.8	3640	µg/L	0.1	0.5	1	NA
Mercury (Hg)	Total	EPA 1631E	2.28	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 200.8	44.3	µg/L	0.1	0.5	1	NA
Nickel (Ni)	Total	EPA 200.8	354	µg/L	0.1	0.5	1	NA
Selenium (Se)	Total	EPA 200.8	71.2	µg/L	0.1	0.5	1	NA
Silver (Ag)	Total	EPA 200.8	4.63	µg/L	0.1	0.2	1	NA
Strontium (Sr)	Total	EPA 200.8	8990	µg/L	0.5	1	1	NA
Thallium (Tl)	Total	EPA 200.8	2.94	µg/L	0.1	0.5	1	NA
Tin (Sn)	Total	EPA 200.8	11.3	µg/L	0.1	0.5	1	NA
Titanium (Ti)	Total	EPA 200.8	904	µg/L	0.1	0.5	1	NA
Vanadium (V)	Total	EPA 200.8	475	µg/L	0.1	0.5	1	NA
Zinc (Zn)	Total	EPA 200.8	5680	µg/L	0.1	0.5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26293***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCM1		LARE	**Date Received:**	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	ND	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	0.112	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.54	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.095	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.305	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	1.66	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.035	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	0.133	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1631E	0.00015	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 1640	9.4	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.309	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	0.011	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	E0.006	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	0.265	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	2.54	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	2.45	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26293***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCM2		LARE	**Date Received:**	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	0.336	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	0.127	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.67	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.098	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.335	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	1.74	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.036	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	0.147	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1631E	0.00015	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 1640	10.1	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.354	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	0.011	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	E0.006	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	0.434	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	2.69	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	2.66	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	3740	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.2	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	45.3	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.1	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.53	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	15.5	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	3.9	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	36	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	25300	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	11.4	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	187	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.00397	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	3.01	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	15.1	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	42.3	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	E0.05	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.85	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	384	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	36.4	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	68	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	3050	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.2	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	4.28	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	894	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.08	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.41	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	19.4	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	6.66	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	31.7	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	77400	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	10.8	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	460	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.00009	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	3.81	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	24.1	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	40.3	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	E0.04	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.58	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	314	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	20.8	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	58.7	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	650	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.14	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	70.3	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.13	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.23	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	13.7	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.27	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	14.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	14100	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	19.5	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	181	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.07674	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.84	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	9.99	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	42.8	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.08	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.16	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1100	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	31.4	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	5390	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	13300	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.08	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	163	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.27	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.56	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	28.4	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	8.91	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	29.2	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	24000	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	32.9	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	372	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.05071	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.41	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	21.2	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	91.3	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.2	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	2.9	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	2190	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	54.5	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	132	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CHLORINATED PESTICIDE RESULTS

CRG Marine Laboratories, Inc.
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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	86	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	91	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	95	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	87	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	89	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	87	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	90	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	88	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	67	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	71	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	78	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	65	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	48.3	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	43.8	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	27	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	49	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	52	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	61	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	46	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	77.3	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	116	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	71.7	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	101	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	103	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	98	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	96	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	5.4	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	0	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E4.2	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	93	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	100	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	93	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	96	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E4.7	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	4.7	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	101	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	102	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	103	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	101	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	6.9	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	6.9	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	101	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	100	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	101	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	14.6	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E4.5	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	5.7	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	14.6	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E3.9	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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AROCLOR-BASED PCB RESULTS

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	35.3	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CONGENER-BASED PCB RESULTS

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E4.3	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E4.1	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E4.5	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	12.9	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	100	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	107	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	110	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	108	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	98	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW	**Date Sampled:**	08-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	100	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	106	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	105	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	105	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	98	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	211	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	30.6	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	84.9	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	213	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	21.5	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	35.5	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	27.6	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26295***	**Sample Description:**	7-8-WBF1-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	Total	EPA 625	90.4	ng/L	1	5	1	NA
Perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	714.5	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	72	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	87	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	86	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	81	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	64	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	352	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	577	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	588	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	1280	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	547	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	136	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	44	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	312	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	900	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	825	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	979	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	984	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	1120	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	769	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	227	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	1640	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	168	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	2580	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	324	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	658	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	Total	EPA 625	167	ng/L	1	5	1	NA
Perylene	Total	EPA 625	485	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	1810	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	2840	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	20312	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	52	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	60	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	62	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	61	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	47	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	850	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	1080	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	1330	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	3090	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	1320	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	300	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	105	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	832	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	2080	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	2100	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	2410	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	2440	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	2260	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	2060	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	571	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	4240	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	337	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	6680	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	782	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	1440	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14040	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	Total	EPA 625	409	ng/L	1	5	1	NA
Perylene	Total	EPA 625	1110	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	4850	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	7410	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	50086	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	99	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	94	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	97	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	97	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	84	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	303	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	555	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	386	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	1200	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	368	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	74.5	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	83.8	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	288	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	204	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	127	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	224	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	142	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	86	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	89.5	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	565	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	46.8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	253	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	121	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	61.6	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	26.1	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	155	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	839	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	616	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	6814.3	ng/dry g			1	NA

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	90	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	93	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	101	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	102	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	74	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	7.9	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	53.5	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	32.5	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	30.3	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	13.5	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E5	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	12.1	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	68.5	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	62.5	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	55.1	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	59.7	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	50.9	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	51.1	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E3.8	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	120	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	13	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	121	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	7.2	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	35.3	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	5.5	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	30.6	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	90.7	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	154	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	1083.7	ng/dry g			1	NA

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	92	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	95	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	99	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	100	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	80	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	10.8	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	60.8	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	27.2	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	41.8	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	13.7	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	5.7	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	12	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	78.7	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	71.9	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	61	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	67.8	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	56.5	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	62.6	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	139	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	14.9	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	175	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	7.4	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	42.5	ng/dry g	1	5	1	NA

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	5.1	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	28.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	116	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	200	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	1302.1	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	88	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	93	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	97	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	96	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	81	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	30.1	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	54.3	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	28.1	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	74.5	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	43.3	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	12.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E2.5	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	28.8	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	141	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	160	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	143	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	142	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	175	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	141	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	10.9	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	250	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	33.6	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	322	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	20.5	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	119	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26300***	**Sample Description:**	7-8-FS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	R1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	16.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	70.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	205	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	333	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	2557.1	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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GENERAL CHEMISTRY
RESULTS

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26294***
Replicate #: R1
Batch ID: 2563-071405

Sample Description: 7-8-LARE RAW
LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 08-Jul-05 13:00
Date Received: 08-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Total Suspended Solids	Total	SM 2540 D	4	mg/L	0.5	0.5	1	14-Jul-05	14-Jul-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES= Not Enough Sample

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26295***
Replicate #: R1
Batch ID: 2563-071405

Sample Description: 7-8-WBF1-1 LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 08-Jul-05 14:00
Date Received: 08-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Total Suspended Solids	Total	SM 2540 D	36	mg/L	0.5	0.5	1	14-Jul-05	14-Jul-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES= Not Enough Sample

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26296***
Replicate #: R1
Batch ID: 2563-071405

Sample Description: 7-8-WBF1-50 LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 08-Jul-05 14:00
Date Received: 08-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Total Suspended Solids	Total	SM 2540 D	5200	mg/L	0.5	0.5	1	14-Jul-05	14-Jul-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES= Not Enough Sample

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26297***
Replicate #: R1
Batch ID: 2563-071405

Sample Description: 7-8-Slurry 1 LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 08-Jul-05 14:00
Date Received: 08-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Total Suspended Solids	Total	SM 2540 D	9480	mg/L	0.5	0.5	1	14-Jul-05	14-Jul-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES= Not Enough Sample

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QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-12051	**Matrix:**	DI Water		**Date Processed:** 26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 28-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 200.8	ND	µg/L	1	5	1	NA
Antimony (Sb)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Arsenic (As)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Barium (Ba)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Beryllium (Be)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Cadmium (Cd)	Total	EPA 200.8	ND	µg/L	0.1	0.2	1	NA
Chromium (Cr)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Cobalt (Co)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Copper (Cu)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Iron (Fe)	Total	EPA 200.8	ND	µg/L	1	5	1	NA
Lead (Pb)	Total	EPA 200.8	ND	µg/L	0.05	0.1	1	NA
Manganese (Mn)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Mercury (Hg)	Total	EPA 1631E	ND	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Nickel (Ni)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Selenium (Se)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Silver (Ag)	Total	EPA 200.8	ND	µg/L	0.1	0.2	1	NA
Strontium (Sr)	Total	EPA 200.8	ND	µg/L	0.5	1	1	NA
Thallium (Tl)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Tin (Sn)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Titanium (Ti)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Vanadium (V)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA
Zinc (Zn)	Total	EPA 200.8	ND	µg/L	0.1	0.5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26292*** **Sample Description:** QAQC Procedural Blank
Replicate #: B2 LARE
Batch ID: 2563-12051 **Matrix:** DI Water
Instrument: ICPMS #1 HP 4500 **Analyst:** P. Hershelman

Date Sampled:
Date Received:
Date Processed: 26-Jul-05
Date Analyzed: 28-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	ND	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1631E	ND	µg/L	0.00005	0.0001	1	NA
Molybdenum (Mo)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B3				**Date Received:**
Batch ID:	2563-12036	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	ND	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B1		LARE		**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	91	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	93	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	99	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	93	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	87	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	96	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	86	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	0	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B1		LARE		**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26292*** **Sample Description:** QAQC Procedural Blank
Replicate #: B2 LARE
Batch ID: 2563-14048 **Matrix:** DI Water
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman

Date Sampled:
Date Received:
Date Processed: 18-Jul-05
Date Analyzed: 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	107	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	110	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	108	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	109	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	108	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14040	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	88	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	95	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	103	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	108	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	72	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B2				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#: ***26292***
Replicate #: B1
Batch ID: 2563-071405

Sample Description: QAQC LARE Procedural Blank
Matrix: DI Water
Analyst: C. Raubach

Date Sampled:
Date Received:

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Total Suspended Solids	Total	SM 2540 D	ND	mg/L	0.5	0.5	1	14-Jul-05	14-Jul-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES= Not Enough Sample

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ACCURACY DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26293***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCS1		LARE	**Date Received:**	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	121	20 µg/L	52 - 149%	PASS
Antimony (Sb)	Total	EPA 1640	70	25 µg/L	44 - 107%	PASS
Arsenic (As)	Total	EPA 1640	103	20 µg/L	71 - 114%	PASS
Beryllium (Be)	Total	EPA 1640	65	20 µg/L	62 - 113%	PASS
Cadmium (Cd)	Total	EPA 1640	93	25 µg/L	69 - 120%	PASS
Chromium (Cr)	Total	EPA 1640	118	20 µg/L	85 - 133%	PASS
Cobalt (Co)	Total	EPA 1640	107	20 µg/L	75 - 124%	PASS
Copper (Cu)	Total	EPA 1640	94	25 µg/L	72 - 128%	PASS
Iron (Fe)	Total	EPA 1640	74	25 µg/L	35 - 97%	PASS
Lead (Pb)	Total	EPA 1640	106	25 µg/L	56 - 116%	PASS
Manganese (Mn)	Total	EPA 1640	74	20 µg/L	64 - 120%	PASS
Mercury (Hg)	Total	EPA 1631E	83	0.0075 µg/L	68 - 117%	PASS
Nickel (Ni)	Total	EPA 1640	82	25 µg/L	68 - 118%	PASS
Selenium (Se)	Total	EPA 1640	74	25 µg/L	55 - 110%	PASS
Silver (Ag)	Total	EPA 1640	98	20 µg/L	66 - 125%	PASS
Thallium (Tl)	Total	EPA 1640	78	20 µg/L	66 - 110%	PASS
Tin (Sn)	Total	EPA 1640	95	25 µg/L	68 - 110%	PASS
Titanium (Ti)	Total	EPA 1640	122	20 µg/L	85 - 133%	PASS
Vanadium (V)	Total	EPA 1640	129	20 µg/L	85 - 133%	PASS
Zinc (Zn)	Total	EPA 1640	98	20 µg/L	62 - 108%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26293***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCS2		LARE	**Date Received:**	
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Processed:**	26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	28-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	128	20 µg/L	52 - 149%	PASS
Antimony (Sb)	Total	EPA 1640	74	25 µg/L	44 - 107%	PASS
Arsenic (As)	Total	EPA 1640	102	20 µg/L	71 - 114%	PASS
Beryllium (Be)	Total	EPA 1640	69	20 µg/L	62 - 113%	PASS
Cadmium (Cd)	Total	EPA 1640	96	25 µg/L	69 - 120%	PASS
Chromium (Cr)	Total	EPA 1640	111	20 µg/L	85 - 133%	PASS
Cobalt (Co)	Total	EPA 1640	104	20 µg/L	75 - 124%	PASS
Copper (Cu)	Total	EPA 1640	101	25 µg/L	72 - 128%	PASS
Iron (Fe)	Total	EPA 1640	72	25 µg/L	35 - 97%	PASS
Lead (Pb)	Total	EPA 1640	108	25 µg/L	56 - 116%	PASS
Manganese (Mn)	Total	EPA 1640	78	20 µg/L	64 - 120%	PASS
Mercury (Hg)	Total	EPA 1631E	84	0.0075 µg/L	68 - 117%	PASS
Nickel (Ni)	Total	EPA 1640	91	25 µg/L	68 - 118%	PASS
Selenium (Se)	Total	EPA 1640	77	25 µg/L	55 - 110%	PASS
Silver (Ag)	Total	EPA 1640	118	20 µg/L	66 - 125%	PASS
Thallium (Tl)	Total	EPA 1640	89	20 µg/L	66 - 110%	PASS
Tin (Sn)	Total	EPA 1640	102	25 µg/L	68 - 110%	PASS
Titanium (Ti)	Total	EPA 1640	114	20 µg/L	85 - 133%	PASS
Vanadium (V)	Total	EPA 1640	120	20 µg/L	85 - 133%	PASS
Zinc (Zn)	Total	EPA 1640	96	20 µg/L	62 - 108%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	BS1				**Date Received:**
Batch ID:	2563-12036	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	93	2 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	103	2 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	108	2 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	101	2 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	96	2 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	104	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	105	2 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	109	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	103	1.5 µg/L	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	108	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	102	2 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	107	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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26292 BS1

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	BS2				**Date Received:**
Batch ID:	2563-12036	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	94	2 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	105	2 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	106	2 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	101	2 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	93	2 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	103	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	105	2 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	109	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	102	1.5 µg/L	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	109	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	107	2 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	103	2 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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26292 BS2

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26674***	**Sample Description:**	QAQC	CRM (ERA540) Lot# D037540	**Date Sampled:**
Replicate #:	CRM1		LARE		**Date Received:**
Batch ID:	2563-12036	**Matrix:**	Sediment		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	125	7500 µg/dry g	38 - 162%	PASS
Antimony (Sb)	NA	EPA 6020	115	178 µg/dry g	49 - 151%	PASS
Arsenic (As)	NA	EPA 6020	120	136 µg/dry g	74 - 126%	PASS
Barium (Ba)	NA	EPA 6020	121	145 µg/dry g	79 - 121%	PASS
Beryllium (Be)	NA	EPA 6020	78	67.8 µg/dry g	83 - 117%	PASS
Cadmium (Cd)	NA	EPA 6020	118	241 µg/dry g	80 - 120%	PASS
Chromium (Cr)	NA	EPA 6020	106	102 µg/dry g	77 - 123%	PASS
Cobalt (Co)	NA	EPA 6020	76	57.2 µg/dry g	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	64.5 µg/dry g	81 - 119%	PASS
Iron (Fe)	NA	EPA 6020	148	13700 µg/dry g	46 - 154%	PASS
Lead (Pb)	NA	EPA 6020	117	73.5 µg/dry g	81 - 119%	PASS
Manganese (Mn)	NA	EPA 6020	117	261 µg/dry g	73 - 127%	PASS
Mercury (Hg)	NA	EPA 245.7	112	8.31 µg/dry g	68 - 132%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	34.5 µg/dry g	80 - 120%	PASS
Nickel (Ni)	NA	EPA 6020	100.0483	82.8 µg/dry g	81 - 119%	PASS
Selenium (Se)	NA	EPA 6020	114	87.7 µg/dry g	67 - 133%	PASS
Silver (Ag)	NA	EPA 6020	72	127 µg/dry g	52 - 148%	PASS
Strontium (Sr)	NA	EPA 6020	118	53.4 µg/dry g	73 - 127%	PASS
Thallium (Tl)	NA	EPA 6020	120	113 µg/dry g	73 - 127%	PASS
Tin (Sn)	NA	EPA 6020	67	110 µg/dry g	58 - 142%	PASS
Titanium (Ti)	NA	EPA 6020	170	390 µg/dry g	7 - 194%	PASS
Vanadium (V)	NA	EPA 6020	119	113 µg/dry g	69 - 131%	PASS
Zinc (Zn)	NA	EPA 6020	112	137 µg/dry g	80 - 120%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26674***	**Sample Description:**	QAQC	CRM (ERA540) Lot# D037540	**Date Sampled:**		
Replicate #:	CRM2		LARE		**Date Received:**		
Batch ID:	2563-12036	**Matrix:**	Sediment		**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	118	7500 µg/dry g	38 - 162%	PASS
Antimony (Sb)	NA	EPA 6020	49	178 µg/dry g	49 - 151%	PASS
Arsenic (As)	NA	EPA 6020	107	136 µg/dry g	74 - 126%	PASS
Barium (Ba)	NA	EPA 6020	120	145 µg/dry g	79 - 121%	PASS
Beryllium (Be)	NA	EPA 6020	71	67.8 µg/dry g	83 - 117%	PASS
Cadmium (Cd)	NA	EPA 6020	109	241 µg/dry g	80 - 120%	PASS
Chromium (Cr)	NA	EPA 6020	96	102 µg/dry g	77 - 123%	PASS
Cobalt (Co)	NA	EPA 6020	75	57.2 µg/dry g	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	96	64.5 µg/dry g	81 - 119%	PASS
Iron (Fe)	NA	EPA 6020	143	13700 µg/dry g	46 - 154%	PASS
Lead (Pb)	NA	EPA 6020	111	73.5 µg/dry g	81 - 119%	PASS
Manganese (Mn)	NA	EPA 6020	110	261 µg/dry g	73 - 127%	PASS
Mercury (Hg)	NA	EPA 245.7	113	8.31 µg/dry g	68 - 132%	PASS
Molybdenum (Mo)	NA	EPA 6020	93	34.5 µg/dry g	80 - 120%	PASS
Nickel (Ni)	NA	EPA 6020	89	82.8 µg/dry g	81 - 119%	PASS
Selenium (Se)	NA	EPA 6020	105	87.7 µg/dry g	67 - 133%	PASS
Silver (Ag)	NA	EPA 6020	103	127 µg/dry g	52 - 148%	PASS
Strontium (Sr)	NA	EPA 6020	110	53.4 µg/dry g	73 - 127%	PASS
Thallium (Tl)	NA	EPA 6020	114	113 µg/dry g	73 - 127%	PASS
Tin (Sn)	NA	EPA 6020	62	110 µg/dry g	58 - 142%	PASS
Titanium (Ti)	NA	EPA 6020	170	390 µg/dry g	7 - 194%	PASS
Vanadium (V)	NA	EPA 6020	108	113 µg/dry g	69 - 131%	PASS
Zinc (Zn)	NA	EPA 6020	104	137 µg/dry g	80 - 120%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	02-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	98	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	96	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	96	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	97	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	100	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	101	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	99	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	100	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	81	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	92	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	95	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	93	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	85	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	87	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	101	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	93	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	105	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	92	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	97	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	103	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	99	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	92	300 ng	32 - 141%	PASS
Endrin Ketone	NA	EPA 8270C	97	300 ng	50 - 130%	PASS
Heptachlor	NA	EPA 8270C	100	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	95	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	02-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	100	300 ng	MDL - 157%	PASS
Mirex	NA	EPA 8270C	93	300 ng	56 - 123%	PASS
trans-Nonachlor	NA	EPA 8270C	87	300 ng	47 - 143%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	02-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	95	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	98	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	93	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	92	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	104	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	110	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	96	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	104	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	83	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	90	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	88	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	102	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	99	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	98	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	96	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	103	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	103	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	97	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	94	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	94	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	92	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	98	300 ng	32 - 141%	PASS
Endrin Ketone	NA	EPA 8270C	95	300 ng	50 - 130%	PASS
Heptachlor	NA	EPA 8270C	96	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	99	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	02-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	92	300 ng	MDL - 157%	PASS
Mirex	NA	EPA 8270C	92	300 ng	56 - 123%	PASS
trans-Nonachlor	NA	EPA 8270C	97	300 ng	47 - 143%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	83	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	104	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	105	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	100	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	114	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	112	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	106	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	94	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	83	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	83	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	104	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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26299 MS2

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	102	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	106	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	100	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	108	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	97	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	92	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	92	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	96	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	103	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	87	1000 ng	47 - 110%	PASS
1-Methylnaphthalene	NA	EPA 8270C	74	131 ng	50 - 120%	PASS
1-Methylphenanthrene	NA	EPA 8270C	123	130 ng	70 - 130%	PASS
2,3,5-Trimethylnaphthal	NA	EPA 8270C	50	136 ng	60 - 120%	FAIL
2,6-Dimethylnaphthalen	NA	EPA 8270C	116	132 ng	60 - 120%	PASS
2-Methylnaphthalene	NA	EPA 8270C	115	128.4 ng	50 - 120%	PASS
Acenaphthene	NA	EPA 8270C	88	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	91	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	120	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	84	114 ng	70 - 130%	PASS
Benzo[a]pyrene	NA	EPA 8270C	133	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	97	131 ng	70 - 130%	PASS
Benzo[e]pyrene	NA	EPA 8270C	118	131 ng	70 - 130%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	140	117 ng	70 - 130%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	94	131 ng	70 - 130%	PASS
Biphenyl	NA	EPA 8270C	86	132 ng	50 - 120%	PASS
Chrysene	NA	EPA 8270C	61	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	96	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	0	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	106	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	129	117 ng	70 - 130%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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26299 MS1

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS1		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	87	132 ng	50 - 120%	PASS
Perylene	NA	EPA 8270C	117	99.4 ng	70 - 130%	PASS
Phenanthrene	NA	EPA 8270C	124	131 ng	70 - 130%	PASS
Pyrene	NA	EPA 8270C	79	132 ng	70 - 130%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	88	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	94	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	107	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	107	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	81	1000 ng	47 - 110%	PASS
1-Methylnaphthalene	NA	EPA 8270C	65	131 ng	50 - 120%	PASS
1-Methylphenanthrene	NA	EPA 8270C	102	130 ng	70 - 130%	PASS
2,3,5-Trimethylnaphthal	NA	EPA 8270C	81	136 ng	60 - 120%	PASS
2,6-Dimethylnaphthalen	NA	EPA 8270C	94	132 ng	60 - 120%	PASS
2-Methylnaphthalene	NA	EPA 8270C	84	128.4 ng	50 - 120%	PASS
Acenaphthene	NA	EPA 8270C	95	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	93	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	144	99.5 ng	70 - 130%	FAIL
Benz[a]anthracene	NA	EPA 8270C	143	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	165	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	119	131 ng	70 - 130%	PASS
Benzo[e]pyrene	NA	EPA 8270C	124	131 ng	70 - 130%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	126	117 ng	70 - 130%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	135	131 ng	70 - 130%	FAIL
Biphenyl	NA	EPA 8270C	75	132 ng	50 - 120%	PASS
Chrysene	NA	EPA 8270C	94	132 ng	70 - 130%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	112	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	97	132 ng	70 - 130%	PASS
Fluorene	NA	EPA 8270C	121	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	130	117 ng	70 - 130%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

26299 MS2

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1	**Date Sampled:**	08-Jul-05	14:00
Replicate #:	MS2		LARE	**Date Received:**	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	73	132 ng	50 - 120%	PASS
Perylene	NA	EPA 8270C	113	99.4 ng	70 - 130%	PASS
Phenanthrene	NA	EPA 8270C	198	131 ng	70 - 130%	FAIL
Pyrene	NA	EPA 8270C	97	132 ng	70 - 130%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PRECISION DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26294***	**Sample Description:**	7-8-LARE RAW LARE	**Date Sampled:**	08-Jul-05	13:00
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Received:**	08-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	26-Jul-05	
				Date Analyzed:	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/L	R2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	21.4	21	2	0 - 30%	PASS
Antimony (Sb)	Total	EPA 1640	0.131	0.12	9	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	0.866	0.937	8	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	0.031	0.031	0	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	0.295	0.315	7	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	1.79	1.76	2	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	56.3	59.9	6	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	0.207	0.201	3	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	20.8	21.6	4	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1631E	0.00401	0.00391	3	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	10.9	10.6	3	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	0.67	0.67	0	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	0.007	0.008	13	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	1.59	1.66	4	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	2.19	2.24	2	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	8.99	9.39	4	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26293***	**Sample Description:**	QAQC LARE	LCM-CRG Seawater	**Date Sampled:**
					Date Received:
Batch ID:	2563-12051	**Matrix:**	Seawater		**Date Processed:** 26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 28-Jul-05

CONSTITUENT	FRACTION	METHOD	LCM1 µg/L	LCM2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	0.112	0.127	13	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	1.54	1.67	8	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	0.095	0.098	3	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	0.305	0.335	9	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	1.66	1.74	5	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	0.035	0.036	3	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	0.133	0.147	10	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1631E	0.00015	0.00015	0	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	9.4	10.1	7	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	0.309	0.354	14	0 - 30%	PASS
Thallium (Tl)	Total	EPA 1640	0.011	0.011	0	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	0.006	0.006	0	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	0.265	0.434	48	0 - 30%	FAIL
Vanadium (V)	Total	EPA 1640	2.54	2.69	6	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	2.45	2.66	8	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26293***	**Sample Description:**	QAQC LARE	LCM-CRG Seawater	**Date Sampled:**
					Date Received:
Batch ID:	2563-12051	**Matrix:**	Seawater		**Date Processed:** 26-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 28-Jul-05

CONSTITUENT	FRACTION	METHOD	LCS1 % Recovery	LCS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	121	128	6	0 - 30%	PASS
Antimony (Sb)	Total	EPA 1640	70	74	6	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	103	102	1	0 - 30%	PASS
Beryllium (Be)	Total	EPA 1640	65	69	6	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	93	96	3	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	118	111	6	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	107	104	3	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	94	101	7	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	74	72	3	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	106	108	2	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	74	78	5	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1631E	83	84	1	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	82	91	10	0 - 30%	PASS
Selenium (Se)	Total	EPA 1640	74	77	4	0 - 30%	PASS
Silver (Ag)	Total	EPA 1640	98	118	19	0 - 30%	PASS
Thallium (Tl)	Total	EPA 1640	78	89	13	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	95	102	7	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	122	114	7	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	129	120	7	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	98	96	2	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26296***	**Sample Description:**	7-8-WBF1-50 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Received:**	08-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	26-Jul-05	
				Date Analyzed:	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/L	R2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 200.8	79500	79700	0	0 - 30%	PASS
Antimony (Sb)	Total	EPA 200.8	8.62	1.54	139	0 - 30%	FAIL
Barium (Ba)	Total	EPA 200.8	1020	1010	1	0 - 30%	PASS
Beryllium (Be)	Total	EPA 200.8	5.28	6.1	14	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 200.8	46.4	46.1	1	0 - 30%	PASS
Chromium (Cr)	Total	EPA 200.8	237	236	0	0 - 30%	PASS
Copper (Cu)	Total	EPA 200.8	706	686	3	0 - 30%	PASS
Iron (Fe)	Total	EPA 200.8	162000	164000	1	0 - 30%	PASS
Lead (Pb)	Total	EPA 200.8	759	745	2	0 - 30%	PASS
Manganese (Mn)	Total	EPA 200.8	2290	2300	0	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1631E	1.38	1.23	11	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 200.8	47.3	46.2	2	0 - 30%	PASS
Nickel (Ni)	Total	EPA 200.8	207	206	0	0 - 30%	PASS
Silver (Ag)	Total	EPA 200.8	2.73	3.98	37	0 - 30%	FAIL
Strontium (Sr)	Total	EPA 200.8	8490	8490	0	0 - 30%	PASS
Thallium (Tl)	Total	EPA 200.8	2.52	2.51	0	0 - 30%	PASS
Tin (Sn)	Total	EPA 200.8	13.9	14	1	0 - 30%	PASS
Titanium (Ti)	Total	EPA 200.8	1950	1990	2	0 - 30%	PASS
Vanadium (V)	Total	EPA 200.8	307	302	2	0 - 30%	PASS
Zinc (Zn)	Total	EPA 200.8	3240	3230	0	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26297***	**Sample Description:**	7-8-Slurry 1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-12051	**Matrix:**	Seawater	**Date Received:**	08-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	26-Jul-05	
				Date Analyzed:	28-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/L	R2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 200.8	114000	11600	163	0 - 30%	FAIL
Antimony (Sb)	Total	EPA 200.8	2.8	3.22	14	0 - 30%	PASS
Arsenic (As)	Total	EPA 200.8	29.3	80.1	93	0 - 30%	FAIL
Barium (Ba)	Total	EPA 200.8	1280	1280	0	0 - 30%	PASS
Beryllium (Be)	Total	EPA 200.8	8.31	8.48	2	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 200.8	60.8	63.3	4	0 - 30%	PASS
Chromium (Cr)	Total	EPA 200.8	349	360	3	0 - 30%	PASS
Cobalt (Co)	Total	EPA 200.8	29.1	30.4	4	0 - 30%	PASS
Copper (Cu)	Total	EPA 200.8	1180	1190	1	0 - 30%	PASS
Iron (Fe)	Total	EPA 200.8	251000	257000	2	0 - 30%	PASS
Lead (Pb)	Total	EPA 200.8	1310	1310	0	0 - 30%	PASS
Manganese (Mn)	Total	EPA 200.8	3580	3640	2	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1631E	2.35	2.28	3	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 200.8	42	44.3	5	0 - 30%	PASS
Nickel (Ni)	Total	EPA 200.8	357	354	1	0 - 30%	PASS
Silver (Ag)	Total	EPA 200.8	3.45	4.63	29	0 - 30%	PASS
Strontium (Sr)	Total	EPA 200.8	8950	8990	0	0 - 30%	PASS
Thallium (Tl)	Total	EPA 200.8	2.85	2.94	3	0 - 30%	PASS
Tin (Sn)	Total	EPA 200.8	17.9	11.3	45	0 - 30%	FAIL
Titanium (Ti)	Total	EPA 200.8	908	904	0	0 - 30%	PASS
Vanadium (V)	Total	EPA 200.8	482	475	1	0 - 30%	PASS
Zinc (Zn)	Total	EPA 200.8	5600	5680	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26298***	**Sample Description:**	7-8-D-1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Received:**	08-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	3740	3050	20	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	2.2	4.28	64	0 - 30%	FAIL
Barium (Ba)	NA	EPA 6020	45.3	894	181	0 - 30%	FAIL
Beryllium (Be)	NA	EPA 6020	0.1	0.08	22	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.53	0.41	26	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	15.5	19.4	22	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	3.9	6.66	52	0 - 30%	FAIL
Copper (Cu)	NA	EPA 6020	36	31.7	13	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	25300	77400	101	0 - 30%	FAIL
Lead (Pb)	NA	EPA 6020	11.4	10.8	5	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	187	460	84	0 - 30%	FAIL
Mercury (Hg)	NA	EPA 245.7	0.00397	0.00009	191	0 - 30%	FAIL
Molybdenum (Mo)	NA	EPA 6020	3.01	3.81	23	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	15.1	24.1	46	0 - 30%	FAIL
Strontium (Sr)	NA	EPA 6020	42.3	40.3	5	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	0.05	0.04	22	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	1.85	1.58	16	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	384	314	20	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	36.4	20.8	55	0 - 30%	FAIL
Zinc (Zn)	NA	EPA 6020	68	58.7	15	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26292***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
					Date Received:
Batch ID:	2563-12036	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	BS1 % Recovery	BS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	93	94	1	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	103	105	2	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	108	106	2	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	101	101	0	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	96	93	3	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	104	103	1	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	105	105	0	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	104	103	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	103	104	1	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	109	109	0	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	103	102	1	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	104	106	2	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	103	102	1	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	103	102	1	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	108	109	1	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	104	107	3	0 - 30%	PASS
Strontium (Sr)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	102	102	0	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	106	106	0	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	103	103	0	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	107	106	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26674***	**Sample Description:**	QAQC LARE	CRM (ERA540) Lot# D037540	**Date Sampled:**
					Date Received:
Batch ID:	2563-12036	**Matrix:**	Sediment		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	CRM1 % Recovery	CRM2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	125	118	6	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	115	49	80	0 - 30%	FAIL
Arsenic (As)	NA	EPA 6020	120	107	11	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	121	120	1	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	78	71	9	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	118	109	8	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	106	96	10	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	76	75	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	103	96	7	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	148	143	3	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	117	111	5	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	117	110	6	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	112	113	1	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	93	9	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	100.0483	89	12	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	114	105	8	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	72	103	35	0 - 30%	FAIL
Strontium (Sr)	NA	EPA 6020	118	110	7	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	120	114	5	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	67	62	8	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	170	170	0	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	119	108	10	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	112	104	7	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
				Date Received:	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	93	101	8	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	100	102	2	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	93	103	10	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	96	101	5	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	4.7	6.9	38	0 - 30%	FAIL
Total Detectable DDTs	NA	EPA 8270C	4.7	6.9	38	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
				Date Received:	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	90	92	2	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	93	95	2	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	101	99	2	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	102	100	2	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	74	80	8	0 - 30%	PASS
1-Methylnaphthalene	NA	EPA 8270C	7.9	10.8	31	0 - 30%	FAIL
1-Methylphenanthrene	NA	EPA 8270C	53.5	60.8	13	0 - 30%	PASS
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	32.5	27.2	18	0 - 30%	PASS
2,6-Dimethylnaphthalene	NA	EPA 8270C	30.3	41.8	32	0 - 30%	FAIL
2-Methylnaphthalene	NA	EPA 8270C	13.5	13.7	1	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	5	5.7	13	0 - 30%	PASS
Anthracene	NA	EPA 8270C	12.1	12	1	0 - 30%	PASS
Benz[a]anthracene	NA	EPA 8270C	68.5	78.7	14	0 - 30%	PASS
Benzo[a]pyrene	NA	EPA 8270C	62.5	71.9	14	0 - 30%	PASS
Benzo[b]fluoranthene	NA	EPA 8270C	55.1	61	10	0 - 30%	PASS
Benzo[e]pyrene	NA	EPA 8270C	59.7	67.8	13	0 - 30%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	50.9	56.5	10	0 - 30%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	51.1	62.6	20	0 - 30%	PASS
Biphenyl	NA	EPA 8270C	3.8	3.6	5	0 - 30%	PASS
Chrysene	NA	EPA 8270C	120	139	15	0 - 30%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	13	14.9	14	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	121	175	36	0 - 30%	FAIL
Fluorene	NA	EPA 8270C	7.2	7.4	3	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	35.3	42.5	19	0 - 30%	PASS
Naphthalene	NA	EPA 8270C	5.5	5.1	8	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Received:**	08-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Processed:**	18-Jul-05	
				Date Analyzed:	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Perylene	NA	EPA 8270C	30.6	28.1	9	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	90.7	116	24	0 - 30%	PASS
Pyrene	NA	EPA 8270C	154	200	26	0 - 30%	PASS
Total Detectable PAHs	NA	EPA 8270C	1083.7	1302.1	18	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Received:**	08-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Processed:**	18-Jul-05	
				Date Analyzed:	02-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	98	95	3	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	96	98	2	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	96	93	3	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	97	92	5	0 - 30%	PASS
2,4'-DDD	NA	EPA 8270C	100	104	4	0 - 30%	PASS
2,4'-DDE	NA	EPA 8270C	101	110	9	0 - 30%	PASS
2,4'-DDT	NA	EPA 8270C	99	96	3	0 - 30%	PASS
4,4'-DDD	NA	EPA 8270C	100	104	4	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	81	83	2	0 - 30%	PASS
4,4'-DDT	NA	EPA 8270C	92	90	2	0 - 30%	PASS
Aldrin	NA	EPA 8270C	95	88	8	0 - 30%	PASS
BHC-alpha	NA	EPA 8270C	93	102	9	0 - 30%	PASS
BHC-beta	NA	EPA 8270C	85	99	15	0 - 30%	PASS
BHC-delta	NA	EPA 8270C	87	98	12	0 - 30%	PASS
BHC-gamma	NA	EPA 8270C	101	96	5	0 - 30%	PASS
Chlordane-alpha	NA	EPA 8270C	93	103	10	0 - 30%	PASS
Chlordane-gamma	NA	EPA 8270C	105	103	2	0 - 30%	PASS
Dieldrin	NA	EPA 8270C	92	97	5	0 - 30%	PASS
Endosulfan Sulfate	NA	EPA 8270C	97	94	3	0 - 30%	PASS
Endosulfan-I	NA	EPA 8270C	103	94	9	0 - 30%	PASS
Endosulfan-II	NA	EPA 8270C	99	92	7	0 - 30%	PASS
Endrin	NA	EPA 8270C	92	98	6	0 - 30%	PASS
Endrin Ketone	NA	EPA 8270C	97	95	2	0 - 30%	PASS
Heptachlor	NA	EPA 8270C	100	96	4	0 - 30%	PASS
Heptachlor Epoxide	NA	EPA 8270C	95	99	4	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Received:**	08-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Processed:**	18-Jul-05	
				Date Analyzed:	02-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	100	92	8	0 - 30%	PASS
Mirex	NA	EPA 8270C	93	92	1	0 - 30%	PASS
trans-Nonachlor	NA	EPA 8270C	87	97	11	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Received:**	08-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Processed:**	18-Jul-05	
				Date Analyzed:	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	97	83	16	0 - 30%	PASS
PCB028	NA	EPA 8270C	89	84	6	0 - 30%	PASS
PCB031	NA	EPA 8270C	90	86	5	0 - 30%	PASS
PCB033	NA	EPA 8270C	93	83	11	0 - 30%	PASS
PCB037	NA	EPA 8270C	98	94	4	0 - 30%	PASS
PCB044	NA	EPA 8270C	95	96	1	0 - 30%	PASS
PCB049	NA	EPA 8270C	90	92	2	0 - 30%	PASS
PCB052	NA	EPA 8270C	97	97	0	0 - 30%	PASS
PCB066	NA	EPA 8270C	92	86	7	0 - 30%	PASS
PCB070	NA	EPA 8270C	94	88	7	0 - 30%	PASS
PCB074	NA	EPA 8270C	95	92	3	0 - 30%	PASS
PCB077	NA	EPA 8270C	90	100	11	0 - 30%	PASS
PCB081	NA	EPA 8270C	83	90	8	0 - 30%	PASS
PCB087	NA	EPA 8270C	94	97	3	0 - 30%	PASS
PCB095	NA	EPA 8270C	94	90	4	0 - 30%	PASS
PCB097	NA	EPA 8270C	95	100	5	0 - 30%	PASS
PCB099	NA	EPA 8270C	101	102	1	0 - 30%	PASS
PCB101	NA	EPA 8270C	104	100	4	0 - 30%	PASS
PCB105	NA	EPA 8270C	105	92	13	0 - 30%	PASS
PCB110	NA	EPA 8270C	97	103	6	0 - 30%	PASS
PCB114	NA	EPA 8270C	93	104	11	0 - 30%	PASS
PCB118	NA	EPA 8270C	101	101	0	0 - 30%	PASS
PCB119	NA	EPA 8270C	99	103	4	0 - 30%	PASS
PCB123	NA	EPA 8270C	99	96	3	0 - 30%	PASS
PCB126	NA	EPA 8270C	104	104	0	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
				Date Received:	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	105	102	3	0 - 30%	PASS
PCB138	NA	EPA 8270C	101	102	1	0 - 30%	PASS
PCB141	NA	EPA 8270C	103	97	6	0 - 30%	PASS
PCB149	NA	EPA 8270C	104	106	2	0 - 30%	PASS
PCB151	NA	EPA 8270C	102	102	0	0 - 30%	PASS
PCB153	NA	EPA 8270C	101	101	0	0 - 30%	PASS
PCB156	NA	EPA 8270C	98	99	1	0 - 30%	PASS
PCB157	NA	EPA 8270C	93	84	10	0 - 30%	PASS
PCB158	NA	EPA 8270C	101	99	2	0 - 30%	PASS
PCB168+132	NA	EPA 8270C	100	100	0	0 - 30%	PASS
PCB169	NA	EPA 8270C	105	97	8	0 - 30%	PASS
PCB170	NA	EPA 8270C	105	104	1	0 - 30%	PASS
PCB177	NA	EPA 8270C	102	103	1	0 - 30%	PASS
PCB180	NA	EPA 8270C	114	104	9	0 - 30%	PASS
PCB183	NA	EPA 8270C	112	104	7	0 - 30%	PASS
PCB187	NA	EPA 8270C	103	102	1	0 - 30%	PASS
PCB189	NA	EPA 8270C	106	100	6	0 - 30%	PASS
PCB194	NA	EPA 8270C	102	108	6	0 - 30%	PASS
PCB200	NA	EPA 8270C	103	101	2	0 - 30%	PASS
PCB201	NA	EPA 8270C	95	101	6	0 - 30%	PASS
PCB206	NA	EPA 8270C	94	97	3	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
				Date Received:	08-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	92	88	4	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	92	94	2	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	96	107	11	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	103	107	4	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	87	81	7	0 - 30%	PASS
1-Methylnaphthalene	NA	EPA 8270C	74	65	13	0 - 30%	PASS
1-Methylphenanthrene	NA	EPA 8270C	123	102	19	0 - 30%	PASS
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	50	81	47	0 - 30%	FAIL
2,6-Dimethylnaphthalene	NA	EPA 8270C	116	94	21	0 - 30%	PASS
2-Methylnaphthalene	NA	EPA 8270C	115	84	31	0 - 30%	FAIL
Acenaphthene	NA	EPA 8270C	88	95	8	0 - 30%	PASS
Acenaphthylene	NA	EPA 8270C	91	93	2	0 - 30%	PASS
Anthracene	NA	EPA 8270C	120	144	18	0 - 30%	PASS
Benz[a]anthracene	NA	EPA 8270C	84	143	52	0 - 30%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	133	165	21	0 - 30%	PASS
Benzo[b]fluoranthene	NA	EPA 8270C	97	119	20	0 - 30%	PASS
Benzo[e]pyrene	NA	EPA 8270C	118	124	5	0 - 30%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	140	126	11	0 - 30%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	94	135	36	0 - 30%	FAIL
Biphenyl	NA	EPA 8270C	86	75	14	0 - 30%	PASS
Chrysene	NA	EPA 8270C	61	94	43	0 - 30%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	96	112	15	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	0	97	200	0 - 30%	FAIL
Fluorene	NA	EPA 8270C	106	121	13	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	129	130	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563c***

CRG ID#:	***26299***	**Sample Description:**	7-8-CS-1 LARE	**Date Sampled:**	08-Jul-05	14:00
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Received:**	08-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Processed:**	18-Jul-05	
				Date Analyzed:	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	87	73	18	0 - 30%	PASS
Perylene	NA	EPA 8270C	117	113	3	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	124	198	46	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	79	97	20	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

SUB-CONTRACT LAB REPORT

Project ID: P2563c
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
7-8-D-1	0.29	6.11	20.16	15.02	6.49	13.00	15.33	6.94	3.24	1.86	1.44	1.40	1.52	1.57	1.43	1.18	0.90	0.71	0.50	0.40	0.25	0.17	0.10	0.00	0.00	0.00	0.00
7-8-CS-1	0.00	0.05	1.60	6.05	13.20	15.40	12.50	12.12	14.71	13.27	7.19	2.50	0.88	0.40	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-8-FS-1	0.00	0.00	0.00	0.03	0.42	1.00	2.55	6.55	14.34	24.87	26.65	15.28	5.16	1.46	0.59	0.38	0.24	0.00	0.00	0.00	0.08	0.31	0.09	0.00	0.00	0.00	0.00

Project ID: P2563c
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
7-8-D-1	20-Jul-05	11.82	89.88	9.21	0.92	10.12	134.80	255.97	459.48	633.71	796.56	2.89	1.96	1.11	0.65	0.31	452.55	459.48	502.18	1.13	1.11	0.98	0.66	0.03	-2.96
7-8-CS-1	20-Jul-05	0.00	96.09	3.91	0.00	3.91	46.58	71.04	171.00	402.33	584.64	4.42	3.81	2.54	1.30	0.76	226.12	171.00	299.84	2.14	2.54	1.73	1.25	-0.32	-2.46
7-8-FS-1	20-Jul-05	0.00	76.41	23.12	0.47	23.59	25.04	37.24	62.34	109.55	167.69	5.32	4.75	4.00	3.19	2.57	75.04	62.34	55.94	3.73	4.00	4.16	0.78	-0.34	-2.76

*Percentage of the sample retained on a 2 mm sieve.

CHAIN-OF-CUSTODY

P2563c 26294-26300

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
(310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

LAB PROJECT ID #

Client Name Address	Steve Cappellino Anchor Environmental
Sampled By	Cappellino
Project Manager	Same
Phone	949-322-8258
FAX	
Email	scappellino@anchorenv.com
Project Name/Number	LARE
P.O. Number	

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	Trace metals	SVOCs	Pest/PCBs	grain size (PSA)	TSS						
1	7-8-LARE RAW	7/8/05	13:00	SW	1/1	glass/HDPE	X	X	X		X						
2	7-8-WBF1-1	7/8/05	14:00	SW	1/1	↓ ↓	X	X	X		X						
3	7-8-WBF1-50	7/8/05	14:00	SW	1/1		X	X	X		X						
4	7-8-Slurry1	7/8/05	14:00	SW	1/1		X	X	X		X						
5	7-8-D-1	7/8/05	14:00	SED	1	glass	X	X	X	X							
6	7-8-CS-1	7/8/05	14:00	SED	1		X	X	X	X							
7	7-8-FS-1	7/8/05	14:00	SED	1		X	X	X	X							
8																	
9																	
10																	

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

*Total Recoverable only for All water Samples

* Standard TAT

RELINQUISHED BY

Signature:	[signature]
Print:	Steve Cappellino
Company:	Anchor
DATE:	7/8/05 TIME: 14:05

RECEIVED BY

Signature:	[signature]
Print:	Chuck Jicuna
Company:	CRG
DATE:	7-8-05 TIME: 14:20

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
PHONE (310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

TO: ARC

Client Name	CRG Marine Laboratories, Inc.
Address	2020 Del Amo Blvd. Suite 200 Torrance, CA 90501
Sampled By	
Project Manager	Misty Mercier
Phone	310 533 5190 x106
FAX	310 533 0211 (direct fax) / 310 533 5003 (main fax)
Email	mmercier@crglabs.com
Project Name/Number	P2563C

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	Grain Size										
1	7-8-D-1	7/8/05	14:00	Sediment	1	plastic bag	X										
2	7-8-CS-1	↓	↓	↓	↓	↓	X										
3	7-8-FS-1						X										
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify: 7/13/05 SB	
Report Format:	pdf	EDD	hardcopy

Comments:

page 1 of 1
1 sample total

~~Important to have results~~
by the end of the day Wed.
~~7/13/05~~ SB

please email pdf report to mmercier@crglabs.com

RELINQUISHED BY			
Signature:			
Print:			
Company:	CRG Marine Laboratories, Inc.		
DATE:		TIME:	

RECEIVED BY			
Signature:			
Print:			
Company:			
DATE:		TIME:	

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

Misty B. Mercier

From: Steve Cappellino [scappellino@anchorenv.com]
Sent: Monday, July 11, 2005 8:04 AM
To: mmercier@crglabs.com
Subject: RE: LARE samples

sorry - too much sun that day - just PAHs.

-----Original Message-----
From: Misty B. Mercier [mailto:mmercier@crglabs.com]
Sent: Monday, July 11, 2005 8:03 AM
To: Steve Cappellino
Subject: LARE samples

Hi Steve,

just to confirm the coc that accompanied ~~our~~ your samples last Fri, to us SVOC = PAHs + BaseNeutral (including Phthalates) and Acid Extractable compounds or do you want just PAHs.

thanks,
misty

P2563C

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· `·. . , . .· `·.. ><((((º>`·. .· `·... ><((((º>

Misty B. Mercier
Project Manager
CRG Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200
Torrance, CA 90501
(310) 533-5190 ext.106
(310) 420-4290 cell
(310) 533-5003 main fax
(310) 533-0211 direct fax

Raw Data Packet 5

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-9-Slurry, 7-9-WBF 1-1, 7-9-WBF 1-50, QAQC, collected on July 9, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

July 12, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563d
Anchor Project: LARE

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your LARE project. According to the chain-of-custody, 3 seawater samples were received intact and cool at CRG on July 11, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 1640
- Chlorinated Pesticides By GCMS Using EPA Method 625
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 625
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 625
- Total Suspended Solids Using SM 2540 D

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-11091	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	1670	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	1.12	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.09	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	0.047	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.236	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	4.23	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	2.42	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	8.82	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	2650	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	8.29	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	214	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	42.6	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	7.42	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.126	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	0.015	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.225	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	136	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	8.11	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	35.4	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-11091	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	1720	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	1.14	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.04	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	0.047	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.214	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	4.27	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	2.63	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	9.32	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	2660	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	8.49	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	211	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	43.3	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	7.3	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.136	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	0.015	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.238	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	146	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	8.72	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	35	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-11091	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	681	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	2.77	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	0.696	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	0.016	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.076	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	1.54	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	1.81	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	3.17	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	1130	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	3.04	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	166	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	44	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	5.46	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.059	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	E0.005	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.091	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	51.8	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	3.63	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	13.7	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-11091	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	1150	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	1.99	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	0.922	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	0.029	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.142	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	2.75	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	2.14	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	5.8	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	1830	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	5.7	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	197	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	44.1	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	6.29	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.108	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	E0.01	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	0.156	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	92.1	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	5.56	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	24	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26279***	**Sample Description:**	QAQC LCM-CRG Seawater	**Date Sampled:**	
Replicate #:	LCM1		LARE	**Date Received:**	
Batch ID:	2563-11091	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	ND	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	0.134	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.6	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.084	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.37	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	0.044	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	0.133	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.104	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	0.643	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	10.4	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.477	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.032	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	E0.007	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	0.517	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	2.53	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	2.89	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26279***	**Sample Description:**	QAQC LARE	LCM-CRG Seawater	**Date Sampled:**
Replicate #:	LCM2				**Date Received:**
Batch ID:	2563-11091	**Matrix:**	Seawater		**Date Processed:** 11-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	ND	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	0.123	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	1.64	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	0.089	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	0.43	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	0.049	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	0.157	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	0.283	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	0.439	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	11.4	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	0.545	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	0.03	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	E0.007	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	1.11	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	2.91	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	3.29	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CHLORINATED PESTICIDE RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B1		LARE		**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	95	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	95	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	92	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	90	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	99	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	95	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	93	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	97	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	97	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	99	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	93	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	96	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	Total	EPA 625	94	% Recovery			1	46 - 119%
(PCB112)	Total	EPA 625	98	% Recovery			1	52 - 123%
(PCB198)	Total	EPA 625	94	% Recovery			1	59 - 123%
(TCMX)	Total	EPA 625	94	% Recovery			1	40 - 110%
2,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
2,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDD	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDE	Total	EPA 625	ND	ng/L	1	5	1	NA
4,4'-DDT	Total	EPA 625	ND	ng/L	1	5	1	NA
Aldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-beta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-delta	Total	EPA 625	ND	ng/L	1	5	1	NA
BHC-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-alpha	Total	EPA 625	ND	ng/L	1	5	1	NA
Chlordane-gamma	Total	EPA 625	ND	ng/L	1	5	1	NA
Dieldrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan Sulfate	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-I	Total	EPA 625	ND	ng/L	1	5	1	NA
Endosulfan-II	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Aldehyde	Total	EPA 625	ND	ng/L	1	5	1	NA
Endrin Ketone	Total	EPA 625	ND	ng/L	1	5	1	NA
Heptachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	Total	EPA 625	ND	ng/L	1	5	1	NA
Methoxychlor	Total	EPA 625	ND	ng/L	1	5	1	NA
Mirex	Total	EPA 625	ND	ng/L	1	5	1	NA
Oxychlordane	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable DDTs	Total	EPA 625	0	ng/L			1	NA
Toxaphene	Total	EPA 625	ND	ng/L	10	50	1	NA
trans-Nonachlor	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

AROCLOR-BASED PCB RESULTS

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1221	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1232	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1242	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1248	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1254	Total	EPA 625	ND	ng/L	10	20	1	NA
Aroclor 1260	Total	EPA 625	ND	ng/L	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CONGENER-BASED PCB RESULTS

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B1		LARE		**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB028	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB031	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB033	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB037	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB044	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB049	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB052	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB066	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB070	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB074	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB077	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB081	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB087	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB095	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB097	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB099	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB101	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB105	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB110	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB114	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB118	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB119	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB123	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB126	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB138	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB141	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB149	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB151	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB153	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB156	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB157	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB158	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB168+132	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB169	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB170	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB177	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB180	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB183	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB187	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB189	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB194	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB200	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB201	Total	EPA 625	ND	ng/L	1	5	1	NA
PCB206	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PCBs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	88	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	92	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	92	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	91	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	79	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenzothiophene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14036	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	0	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	90	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	97	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	96	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	94	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	82	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	E1.2	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	18.9	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	21.2	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	25.1	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	7.5	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	10.2	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	E4	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	21.4	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	52.5	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	46.9	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	49.2	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	46.7	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	40.1	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	44.3	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	E1.9	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	92.6	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	6.6	ng/L	1	5	1	NA
Dibenzothiophene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	132	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	12.4	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	36.7	ng/L	1	5	1	NA
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Perylene	Total	EPA 625	17.4	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	59.7	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	137	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	885.5	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	87	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	97	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	95	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	92	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	76	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	8.4	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	E3.7	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	ND	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	40.1	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	6.6	ng/L	1	5	1	NA
Dibenzothiophene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	18.6	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26281***	**Sample Description:**	7-9-WBF 1-1	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	36.7	ng/L	1	5	1	NA
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Perylene	Total	EPA 625	ND	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	5.5	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	18.9	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	138.5	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	Total	EPA 625	90	% Recovery			1	52 - 125%
(d10-Phenanthrene)	Total	EPA 625	99	% Recovery			1	57 - 128%
(d12-Chrysene)	Total	EPA 625	96	% Recovery			1	61 - 126%
(d12-Perylene)	Total	EPA 625	96	% Recovery			1	53 - 122%
(d8-Naphthalene)	Total	EPA 625	78	% Recovery			1	47 - 110%
1-Methylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
1-Methylphenanthrene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,3,5-Trimethylnaphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
2,6-Dimethylnaphthalene	Total	EPA 625	10.7	ng/L	1	5	1	NA
2-Methylnaphthalene	Total	EPA 625	E3	ng/L	1	5	1	NA
Acenaphthene	Total	EPA 625	ND	ng/L	1	5	1	NA
Acenaphthylene	Total	EPA 625	E4.2	ng/L	1	5	1	NA
Anthracene	Total	EPA 625	6.3	ng/L	1	5	1	NA
Benz[a]anthracene	Total	EPA 625	7.2	ng/L	1	5	1	NA
Benzo[a]pyrene	Total	EPA 625	11.7	ng/L	1	5	1	NA
Benzo[b]fluoranthene	Total	EPA 625	11.3	ng/L	1	5	1	NA
Benzo[e]pyrene	Total	EPA 625	12.4	ng/L	1	5	1	NA
Benzo[g,h,i]perylene	Total	EPA 625	12.1	ng/L	1	5	1	NA
Benzo[k]fluoranthene	Total	EPA 625	11.2	ng/L	1	5	1	NA
Biphenyl	Total	EPA 625	ND	ng/L	1	5	1	NA
Chrysene	Total	EPA 625	21.6	ng/L	1	5	1	NA
Dibenz[a,h]anthracene	Total	EPA 625	ND	ng/L	1	5	1	NA
Dibenzothiophene	Total	EPA 625	ND	ng/L	1	5	1	NA
Fluoranthene	Total	EPA 625	46.4	ng/L	1	5	1	NA
Fluorene	Total	EPA 625	ND	ng/L	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26282***	**Sample Description:**	7-9-WBF 1-50	**Date Sampled:**	09-Jul-05	12:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14036	**Matrix:**	Seawater	**Date Processed:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Indeno[1,2,3-c,d]pyrene	Total	EPA 625	7.6	ng/L	1	5	1	NA
Naphthalene	Total	EPA 625	ND	ng/L	1	5	1	NA
Perylene	Total	EPA 625	6	ng/L	1	5	1	NA
Phenanthrene	Total	EPA 625	16.5	ng/L	1	5	1	NA
Pyrene	Total	EPA 625	48.4	ng/L	1	5	1	NA
Total Detectable PAHs	Total	EPA 625	236.6	ng/L			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

GENERAL CHEMISTRY
RESULTS

QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26278***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-11091	**Matrix:**	DI Water		**Date Processed:** 11-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	Total	EPA 1640	ND	µg/L	0.01	0.125	1	NA
Antimony (Sb)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Arsenic (As)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Beryllium (Be)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cadmium (Cd)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Chromium (Cr)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Cobalt (Co)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Copper (Cu)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Iron (Fe)	Total	EPA 1640	ND	µg/L	0.01	0.025	1	NA
Lead (Pb)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Manganese (Mn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Mercury (Hg)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Molybdenum (Mo)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Nickel (Ni)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Selenium (Se)	Total	EPA 1640	ND	µg/L	0.01	0.015	1	NA
Silver (Ag)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Thallium (Tl)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Tin (Sn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Titanium (Ti)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Vanadium (V)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA
Zinc (Zn)	Total	EPA 1640	ND	µg/L	0.005	0.01	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

ACCURACY DATA

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26279***	**Sample Description:**	QAQC	LCM-CRG Seawater	**Date Sampled:**		
Replicate #:	LCS1		LARE		**Date Received:**		
Batch ID:	2563-11091	**Matrix:**	Seawater		**Date Processed:**	11-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	108	20 µg/L	52 - 149%	PASS
Antimony (Sb)	Total	EPA 1640	80	25 µg/L	44 - 107%	PASS
Arsenic (As)	Total	EPA 1640	92	20 µg/L	71 - 114%	PASS
Beryllium (Be)	Total	EPA 1640	82	20 µg/L	62 - 113%	PASS
Cadmium (Cd)	Total	EPA 1640	84	25 µg/L	69 - 120%	PASS
Chromium (Cr)	Total	EPA 1640	113	20 µg/L	85 - 133%	PASS
Cobalt (Co)	Total	EPA 1640	105	20 µg/L	75 - 124%	PASS
Copper (Cu)	Total	EPA 1640	113	25 µg/L	72 - 128%	PASS
Iron (Fe)	Total	EPA 1640	74	25 µg/L	35 - 97%	PASS
Lead (Pb)	Total	EPA 1640	100	25 µg/L	56 - 116%	PASS
Manganese (Mn)	Total	EPA 1640	81	20 µg/L	64 - 120%	PASS
Mercury (Hg)	Total	EPA 1640	81	1 µg/L	68 - 117%	PASS
Molybdenum (Mo)	Total	EPA 1640	110	25 µg/L	59 - 125%	PASS
Nickel (Ni)	Total	EPA 1640	113	25 µg/L	68 - 118%	PASS
Selenium (Se)	Total	EPA 1640	91	25 µg/L	55 - 110%	PASS
Silver (Ag)	Total	EPA 1640	98	20 µg/L	66 - 125%	PASS
Thallium (Tl)	Total	EPA 1640	87	20 µg/L	66 - 110%	PASS
Tin (Sn)	Total	EPA 1640	88	25 µg/L	68 - 110%	PASS
Titanium (Ti)	Total	EPA 1640	123	20 µg/L	85 - 133%	PASS
Vanadium (V)	Total	EPA 1640	117	20 µg/L	85 - 133%	PASS
Zinc (Zn)	Total	EPA 1640	72	20 µg/L	62 - 108%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26279***	**Sample Description:**	QAQC LARE	LCM-CRG Seawater	**Date Sampled:**
Replicate #:	LCS2				**Date Received:**
Batch ID:	2563-11091	**Matrix:**	Seawater		**Date Processed:** 11-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	112	20 µg/L	52 - 149%	PASS
Antimony (Sb)	Total	EPA 1640	91	25 µg/L	44 - 107%	PASS
Arsenic (As)	Total	EPA 1640	87	20 µg/L	71 - 114%	PASS
Beryllium (Be)	Total	EPA 1640	81	20 µg/L	62 - 113%	PASS
Cadmium (Cd)	Total	EPA 1640	84	25 µg/L	69 - 120%	PASS
Chromium (Cr)	Total	EPA 1640	112	20 µg/L	85 - 133%	PASS
Cobalt (Co)	Total	EPA 1640	104	20 µg/L	75 - 124%	PASS
Copper (Cu)	Total	EPA 1640	116	25 µg/L	72 - 128%	PASS
Iron (Fe)	Total	EPA 1640	75	25 µg/L	35 - 97%	PASS
Lead (Pb)	Total	EPA 1640	102	25 µg/L	56 - 116%	PASS
Manganese (Mn)	Total	EPA 1640	82	20 µg/L	64 - 120%	PASS
Mercury (Hg)	Total	EPA 1640	88	1 µg/L	68 - 117%	PASS
Molybdenum (Mo)	Total	EPA 1640	114	25 µg/L	59 - 125%	PASS
Nickel (Ni)	Total	EPA 1640	114	25 µg/L	68 - 118%	PASS
Selenium (Se)	Total	EPA 1640	93	25 µg/L	55 - 110%	PASS
Silver (Ag)	Total	EPA 1640	78	20 µg/L	66 - 125%	PASS
Thallium (Tl)	Total	EPA 1640	86	20 µg/L	66 - 110%	PASS
Tin (Sn)	Total	EPA 1640	93	25 µg/L	68 - 110%	PASS
Titanium (Ti)	Total	EPA 1640	121	20 µg/L	85 - 133%	PASS
Vanadium (V)	Total	EPA 1640	118	20 µg/L	85 - 133%	PASS
Zinc (Zn)	Total	EPA 1640	71	20 µg/L	62 - 108%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

PRECISION DATA

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26280***	**Sample Description:**	7-9-Slurry 1 LARE	**Date Sampled:**	09-Jul-05	12:00
Batch ID:	2563-11091	**Matrix:**	Seawater	**Date Received:**	11-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	11-Jul-05	
				Date Analyzed:	12-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/L	R2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	1670	1720	3	0 - 30%	PASS
Antimony (Sb)	Total	EPA 1640	1.12	1.14	2	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	1.09	1.04	5	0 - 30%	PASS
Beryllium (Be)	Total	EPA 1640	0.047	0.047	0	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	0.236	0.214	10	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	4.23	4.27	1	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	2.42	2.63	8	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	8.82	9.32	6	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	2650	2660	0	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	8.29	8.49	2	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	214	211	1	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	42.6	43.3	2	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	7.42	7.3	2	0 - 30%	PASS
Selenium (Se)	Total	EPA 1640	0.126	0.136	8	0 - 30%	PASS
Thallium (Tl)	Total	EPA 1640	0.015	0.015	0	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	0.225	0.238	6	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	136	146	7	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	8.11	8.72	7	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	35.4	35	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26279***	**Sample Description:**	QAQC LARE	LCM-CRG Seawater	**Date Sampled:**
					Date Received:
Batch ID:	2563-11091	**Matrix:**	Seawater		**Date Processed:** 11-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	LCM1 µg/L	LCM2 µg/L	% RPD	ACCEPTANCE RANGE	COMMENT
Antimony (Sb)	Total	EPA 1640	0.134	0.123	9	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	1.6	1.64	2	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	0.084	0.089	6	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	0.37	0.43	15	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	0.044	0.049	11	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	0.133	0.157	17	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	0.104	0.283	93	0 - 30%	FAIL
Manganese (Mn)	Total	EPA 1640	0.643	0.439	38	0 - 30%	FAIL
Molybdenum (Mo)	Total	EPA 1640	10.4	11.4	9	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	0.477	0.545	13	0 - 30%	PASS
Selenium (Se)	Total	EPA 1640	0.032	0.03	6	0 - 30%	PASS
Thallium (Tl)	Total	EPA 1640	0.007	0.007	0	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	0.517	1.11	73	0 - 30%	FAIL
Vanadium (V)	Total	EPA 1640	2.53	2.91	14	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	2.89	3.29	13	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563d***

CRG ID#:	***26279***	**Sample Description:**	QAQC LARE	LCM-CRG Seawater	**Date Sampled:**
					Date Received:
Batch ID:	2563-11091	**Matrix:**	Seawater		**Date Processed:** 11-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 12-Jul-05

CONSTITUENT	FRACTION	METHOD	LCS1 % Recovery	LCS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	Total	EPA 1640	108	112	4	0 - 30%	PASS
Antimony (Sb)	Total	EPA 1640	80	91	13	0 - 30%	PASS
Arsenic (As)	Total	EPA 1640	92	87	6	0 - 30%	PASS
Beryllium (Be)	Total	EPA 1640	82	81	1	0 - 30%	PASS
Cadmium (Cd)	Total	EPA 1640	84	84	0	0 - 30%	PASS
Chromium (Cr)	Total	EPA 1640	113	112	1	0 - 30%	PASS
Cobalt (Co)	Total	EPA 1640	105	104	1	0 - 30%	PASS
Copper (Cu)	Total	EPA 1640	113	116	3	0 - 30%	PASS
Iron (Fe)	Total	EPA 1640	74	75	1	0 - 30%	PASS
Lead (Pb)	Total	EPA 1640	100	102	2	0 - 30%	PASS
Manganese (Mn)	Total	EPA 1640	81	82	1	0 - 30%	PASS
Mercury (Hg)	Total	EPA 1640	81	88	8	0 - 30%	PASS
Molybdenum (Mo)	Total	EPA 1640	110	114	4	0 - 30%	PASS
Nickel (Ni)	Total	EPA 1640	113	114	1	0 - 30%	PASS
Selenium (Se)	Total	EPA 1640	91	93	2	0 - 30%	PASS
Silver (Ag)	Total	EPA 1640	98	78	23	0 - 30%	PASS
Thallium (Tl)	Total	EPA 1640	87	86	1	0 - 30%	PASS
Tin (Sn)	Total	EPA 1640	88	93	6	0 - 30%	PASS
Titanium (Ti)	Total	EPA 1640	123	121	2	0 - 30%	PASS
Vanadium (V)	Total	EPA 1640	117	118	1	0 - 30%	PASS
Zinc (Zn)	Total	EPA 1640	72	71	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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SUB-CONTRACT LAB REPORT

CHAIN-OF-CUSTODY

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
PHONE (310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

Client Name	Steve Cappellino
Address	Anchor Environmental
Sampled By	Steve Cappellino
Project Manager	Same
Phone	949-833-7150 x
FAX	949-833-~~7150~~ 7151
Email	scappellino@anchorenviron
Project Name/Number	CARE
P.O. Number	

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	TSS	TRACE METALS	PEST/PCBS	PAH's	~~Particle Size~~	Grain Size (PSA)					
1	7-9-Slurry 1	7/9/05	12:00	SW	1/1	GLASS/HDPE	X	X	X	X							
2	7-9-WBF1-1	7/9/05	12:00	SW	1/1	↓	X	X	X	X							
3	7-9-WBF1-50	7/9/05	12:00	SW	1/1	↓	X	X	X	X							
4	7-9-Sludge	7/9/05	15:00	SED	1	GLASS		X	X	X		X					
5	7-9-FS1	7/9/05	15:00	SED	1	↓		X	X	X		X					
6	7-9-CS-1	7/9/05	15:00	SED	1	↓		X	X	X		X					
7	7-8-FS-2	7/8/05	15:00	SED	1	↓		X	X	X		X					
8	7-8-CS-2	7/8/05	15:00	SED	1	↓		X	X	X		X					
9																	
10																	

P25639 Rush TAT

P25632

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

Rush TAT on 7/9 water samples

CRG Project ID: _____ (lab use only)

CRG Sample ID: _____ (lab use only)

RELINQUISHED BY

Signature:	[signature]
Print:	Steve Cappellino
Company:	Anchor Environmental
DATE:	7/11/05 TIME: 0900

RECEIVED BY

Signature:	[signature]
Print:	Chuck Vicuna
Company:	CRG
DATE:	7-11-05 TIME: 0922

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

CRG
Marine Laboratories, Inc.

SAMPLE RECEIPT FORM

CRG Project ID
P25630

CLIENT NAME: Anchor

DATE RECEIVED: 7-11-05

COURIER INFORMATION		
☒ CRG	☐ FEDEX	TRACKING NUMBER
☐ OTHER*	☐ UPS	

TEMPERATURE	
10 °C	☐ BLUE ICE
	☒ WET ICE
	☐ NO ICE

Chain-of-Custody
☑ INCLUDED
☑ SIGNED
☐ NOT INCLUDED

SAMPLE MATRIX
☑ LIQUID
☑ SOLID
☐ OTHER*

CONDITION OF SAMPLES UPON ARRIVAL

	YES	NO*	NA
All sample containers intact and good condition	☑	☐	☐
All samples listed on COC are present	☑	☐	☐
Sample ID on containers consistent with COC	☑	☐	☐
Correct containers used for analyses requested	☑	☐	☐
All samples received within method holding time	☑	☐	☐

*NOTES

COMPLETED BY: C.V.

2020 Del Amo Boulevard Suite 200, Torrance, CA 90501 · (310) 533-5190 · FAX (310) 533-5003

Raw Data Packet 6

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-9-FS-1, 7-9-CS-1, 7-9-FS-2, 7-9-CS-2, collected on July 9, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

August 1, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563e
Anchor Project: LARE Sediment Separation

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your LARE Sediment Separation project. According to the chain-of-custody, 5 samples were received intact and cool at CRG on July 11, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 6020
- Chlorinated Pesticides By GCMS Using EPA Method 8270
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 8270
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 8270

Grain Size analysis was subcontracted to another laboratory, results are included.

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-12039	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	13-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	6230	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.45	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.33	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	89.8	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.12	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.42	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	15	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.61	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	17.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	13700	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	18.7	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	205	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.074	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.86	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	10.6	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.3	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.07	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	56.9	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.11	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.6	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1200	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	29.5	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	77.2	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-12039	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	13-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	3610	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.36	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	0.93	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	45.8	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.08	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.24	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	7.78	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	2.64	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	8.55	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	9510	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	11.2	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	116	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.039	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.48	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	5.41	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.19	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.09	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	32.7	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	E 0.05	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	0.89	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	649	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	20.7	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	46	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26302***	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-12039	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	13-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	6500	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.47	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.62	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	92.1	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.14	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.38	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	16.4	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	5.17	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	20.2	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	14600	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	20.8	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	218	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.093	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.97	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	12.2	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.39	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.06	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	63.9	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.11	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.98	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1200	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	31.1	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	97	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-12039	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	13-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	4710	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.37	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.01	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	53.8	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.1	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.21	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	10.2	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	3.23	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	9.03	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	12100	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	9.32	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	142	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.159	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.44	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	6.32	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.21	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.08	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	39.9	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.06	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	873	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	25.5	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	54.2	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CHLORINATED PESTICIDE RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	97	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	101	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	92	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	6.7	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E3.8	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	5.1	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	8.4	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E2.2	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	103	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	102	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	93	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	102	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E3.2	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	3.2	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26302***	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	87	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	94	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	98	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	85	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E4.6	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	13.3	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E4.1	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26302***	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	17.9	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E2.7	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	87	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	81	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	85	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	87	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E3	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	3	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	79	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	76	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	75	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	91	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E2.3	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	2.3	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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AROCLOR-BASED PCB RESULTS

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	25.3	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	E 17	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26302***	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	21.4	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CONGENER-BASED PCB RESULTS

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	15-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	E1.1	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E1.2	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#: ***26285*** **Sample Description:** 7-9-FS-1 **Date Sampled:** 09-Jul-05 15:00
Replicate #: R1 **Date Received:** 11-Jul-05
Batch ID: 2563-14043 **Matrix:** Sediment **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E 1.3	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	11.6	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#: *26301* **Sample Description:** 7-9-CS-1 **Date Sampled:** 09-Jul-05 15:00
Replicate #: R1 **Date Received:** 11-Jul-05
Batch ID: 2563-14043 **Matrix:** Sediment **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	15-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26302*	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	15-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	E 1.9	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	E 2.1	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E 1.9	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E 2.6	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#: ***26302*** **Sample Description:** 7-9-FS-2 **Date Sampled:** 09-Jul-05 15:00
Replicate #: R1 **Date Received:** 11-Jul-05
Batch ID: 2563-14043 **Matrix:** Sediment **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E2.4	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	E1.3	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	12.2	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#: *26303* **Sample Description:** 7-9-CS-2 **Date Sampled:** 09-Jul-05 15:00
Replicate #: R1 **Date Received:** 11-Jul-05
Batch ID: 2563-14043 **Matrix:** Sediment **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	15-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#: ***26303*** **Sample Description:** 7-9-CS-2 **Date Sampled:** 09-Jul-05 15:00
Replicate #: R2 **Date Received:** 11-Jul-05
Batch ID: 2563-14043 **Matrix:** Sediment **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	15-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	100	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	110	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	107	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	103	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	75	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	11.8	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	44.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	17.3	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	27.8	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	9.8	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	17.4	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	43.9	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	222	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	218	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	220	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	190	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	191	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	224	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	333	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	43.5	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	756	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	22.1	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	189	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26285***	**Sample Description:**	7-9-FS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	E2.3	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	77.6	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	404	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	645	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	3912.4	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	109	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	110	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	102	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	109	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	86	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E4.7	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	14.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	7.7	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	12.3	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E2.7	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	8.7	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	35.8	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	45.1	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	43.4	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	40.8	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	47.4	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	41.7	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	59.3	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	9.5	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	109	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	6.1	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	37.6	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26301***	**Sample Description:**	7-9-CS-1	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	20.5	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	49.3	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	105	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	701.5	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26302***	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	93	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	109	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	109	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	107	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	70	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	22.3	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	71.4	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	32.1	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	48.8	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	25.3	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	23.9	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	42.8	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	206	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	214	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	221	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	209	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	207	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	215	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	339	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	41.6	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	594	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	29.8	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	177	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26302***	**Sample Description:**	7-9-FS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	9.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	81.4	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	314	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	570	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	3698.6	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	90	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	88	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	98	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	90	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	83	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E4.6	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	12.6	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	7.5	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	10.5	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E2.6	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	6.6	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	30.7	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	30.1	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	33.8	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	31.6	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	33.2	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	31.9	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	51.1	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	6.5	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	87.4	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	5.1	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	27.1	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	15.7	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	33.5	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	84.4	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	546.5	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	98	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	103	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	103	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	90	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	80	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E4.6	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	11.5	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	7	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	10.8	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E3.4	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	10	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	36.7	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	34	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	34.6	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	32.7	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	29.8	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	34.7	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	54.2	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	7.2	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	107	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	6.3	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	23.8	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	R2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	15.7	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	45.8	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	97.1	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	606.9	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-12039	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 13-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	ND	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14043	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	105	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	103	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	103	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	100	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14043	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	0	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14043	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#: *26283* **Sample Description:** QAQC Procedural Blank **Date Sampled:**
Replicate #: B1 LARE **Date Received:**
Batch ID: 2563-14043 **Matrix:** DI Water **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#: *26283* **Sample Description:** QAQC Procedural Blank **Date Sampled:**
Replicate #: B1 LARE **Date Received:**
Batch ID: 2563-14043 **Matrix:** DI Water **Date Processed:** 15-Jul-05
Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** D. Gonsman **Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14043	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	103	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	109	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	104	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	100	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	91	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14043	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman		**Date Analyzed:** 22-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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ACCURACY DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	BS1				**Date Received:**
Batch ID:	2563-12039	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 13-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	93	2 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	103	2 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	108	2 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	101	2 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	96	2 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	104	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	105	2 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	109	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	107	0.1 µgL	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	108	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	102	2 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	107	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26283***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	BS2				**Date Received:**
Batch ID:	2563-12039	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 13-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	94	2 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	105	2 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	106	2 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	101	2 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	93	2 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	103	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	105	2 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	109	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	114	0.1 µgL	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	109	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	107	2 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	103	2 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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26283 BS2

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26649***	**Sample Description:**	QAQC	CRM (ERA540) Lot# D037540	**Date Sampled:**		
Replicate #:	CRM1		LARE		**Date Received:**		
Batch ID:	2563-12039	**Matrix:**	Sediment		**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	13-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	125	7500 µg/dry g	38 - 162%	PASS
Antimony (Sb)	NA	EPA 6020	115	178 µg/dry g	49 - 151%	PASS
Arsenic (As)	NA	EPA 6020	120	136 µg/dry g	74 - 126%	PASS
Barium (Ba)	NA	EPA 6020	125	145 µg/dry g	79 - 121%	PASS
Beryllium (Be)	NA	EPA 6020	78	67.8 µg/dry g	83 - 117%	PASS
Cadmium (Cd)	NA	EPA 6020	118	241 µg/dry g	80 - 120%	PASS
Chromium (Cr)	NA	EPA 6020	106	102 µg/dry g	77 - 123%	PASS
Cobalt (Co)	NA	EPA 6020	76	57.2 µg/dry g	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	64.5 µg/dry g	81 - 119%	PASS
Iron (Fe)	NA	EPA 6020	148	13700 µg/dry g	46 - 154%	PASS
Lead (Pb)	NA	EPA 6020	117	73.5 µg/dry g	81 - 119%	PASS
Manganese (Mn)	NA	EPA 6020	117	261 µg/dry g	73 - 127%	PASS
Mercury (Hg)	NA	EPA 245.7	114	8.31 µg/dry g	68 - 132%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	34.5 µg/dry g	80 - 120%	PASS
Nickel (Ni)	NA	EPA 6020	100	82.8 µg/dry g	81 - 119%	PASS
Selenium (Se)	NA	EPA 6020	114	87.7 µg/dry g	67 - 133%	PASS
Silver (Ag)	NA	EPA 6020	72	127 µg/dry g	52 - 148%	PASS
Strontium (Sr)	NA	EPA 6020	117	53.4 µg/dry g	73 - 127%	PASS
Thallium (Tl)	NA	EPA 6020	120	113 µg/dry g	73 - 127%	PASS
Tin (Sn)	NA	EPA 6020	67	110 µg/dry g	58 - 142%	PASS
Titanium (Ti)	NA	EPA 6020	170	390 µg/dry g	7 - 194%	PASS
Vanadium (V)	NA	EPA 6020	118	113 µg/dry g	69 - 131%	PASS
Zinc (Zn)	NA	EPA 6020	112	137 µg/dry g	80 - 120%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26649***	**Sample Description:**	QAQC	CRM (ERA540) Lot# D037540	**Date Sampled:**		
Replicate #:	CRM2		LARE		**Date Received:**		
Batch ID:	2563-12039	**Matrix:**	Sediment		**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	13-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	118	7500 µg/dry g	38 - 162%	PASS
Antimony (Sb)	NA	EPA 6020	111	178 µg/dry g	49 - 151%	PASS
Arsenic (As)	NA	EPA 6020	107	136 µg/dry g	74 - 126%	PASS
Barium (Ba)	NA	EPA 6020	120	145 µg/dry g	79 - 121%	PASS
Beryllium (Be)	NA	EPA 6020	71	67.8 µg/dry g	83 - 117%	PASS
Cadmium (Cd)	NA	EPA 6020	109	241 µg/dry g	80 - 120%	PASS
Chromium (Cr)	NA	EPA 6020	96	102 µg/dry g	77 - 123%	PASS
Cobalt (Co)	NA	EPA 6020	75	57.2 µg/dry g	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	95	64.5 µg/dry g	81 - 119%	PASS
Iron (Fe)	NA	EPA 6020	143	13700 µg/dry g	46 - 154%	PASS
Lead (Pb)	NA	EPA 6020	111	73.5 µg/dry g	81 - 119%	PASS
Manganese (Mn)	NA	EPA 6020	110	261 µg/dry g	73 - 127%	PASS
Mercury (Hg)	NA	EPA 245.7	118	8.31 µg/dry g	68 - 132%	PASS
Molybdenum (Mo)	NA	EPA 6020	93	34.5 µg/dry g	80 - 120%	PASS
Nickel (Ni)	NA	EPA 6020	89	82.8 µg/dry g	81 - 119%	PASS
Selenium (Se)	NA	EPA 6020	105	87.7 µg/dry g	67 - 133%	PASS
Silver (Ag)	NA	EPA 6020	103	127 µg/dry g	52 - 148%	PASS
Strontium (Sr)	NA	EPA 6020	110	53.4 µg/dry g	73 - 127%	PASS
Thallium (Tl)	NA	EPA 6020	114	113 µg/dry g	73 - 127%	PASS
Tin (Sn)	NA	EPA 6020	62	110 µg/dry g	58 - 142%	PASS
Titanium (Ti)	NA	EPA 6020	169	390 µg/dry g	7 - 194%	PASS
Vanadium (V)	NA	EPA 6020	108	113 µg/dry g	69 - 131%	PASS
Zinc (Zn)	NA	EPA 6020	104	137 µg/dry g	80 - 120%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	89	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	94	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	91	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	88	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	73	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	88	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	67	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	77	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	83	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	77	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	98	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	77	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	91	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	85	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	91	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	80	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	77	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	91	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	94	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	69	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	80	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	74	300 ng	32 - 141%	PASS
Endrin Ketone	NA	EPA 8270C	70	300 ng	50 - 130%	PASS
Heptachlor	NA	EPA 8270C	84	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	81	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	70	300 ng	MDL - 157%	PASS
Mirex	NA	EPA 8270C	79	300 ng	56 - 123%	PASS
trans-Nonachlor	NA	EPA 8270C	74	300 ng	47 - 143%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	90	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	96	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	90	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	83	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	76	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	90	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	72	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	77	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	87	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	83	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	86	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	79	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	93	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	97	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	94	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	85	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	83	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	77	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	82	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	88	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	88	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	80	300 ng	32 - 141%	PASS
Endrin Ketone	NA	EPA 8270C	84	300 ng	50 - 130%	PASS
Heptachlor	NA	EPA 8270C	83	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	75	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	75	300 ng	MDL - 157%	PASS
Mirex	NA	EPA 8270C	72	300 ng	56 - 123%	PASS
trans-Nonachlor	NA	EPA 8270C	78	300 ng	47 - 143%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	91	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	110	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	80	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	87	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	91	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	83	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	94	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	81	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	98	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	91	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	83	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	83	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	91	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	111	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	94	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	92	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	89	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	80	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	85	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	96	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	91	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	95	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	106	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	103	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	101	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	78	1000 ng	47 - 110%	PASS
1-Methylnaphthalene	NA	EPA 8270C	93	131 ng	50 - 120%	PASS
1-Methylphenanthrene	NA	EPA 8270C	140	130 ng	70 - 130%	FAIL
2,3,5-Trimethylnaphthal	NA	EPA 8270C	92	136 ng	60 - 120%	PASS
2,6-Dimethylnaphthalen	NA	EPA 8270C	90	132 ng	60 - 120%	PASS
2-Methylnaphthalene	NA	EPA 8270C	92	128.4 ng	50 - 120%	PASS
Acenaphthene	NA	EPA 8270C	139	126 ng	70 - 130%	FAIL
Acenaphthylene	NA	EPA 8270C	102	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	282	99.5 ng	70 - 130%	FAIL
Benz[a]anthracene	NA	EPA 8270C	514	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	419	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	421	131 ng	70 - 130%	FAIL
Benzo[e]pyrene	NA	EPA 8270C	297	131 ng	70 - 130%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	287	117 ng	70 - 130%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	362	131 ng	70 - 130%	FAIL
Biphenyl	NA	EPA 8270C	87	132 ng	50 - 120%	PASS
Chrysene	NA	EPA 8270C	480	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	143	98.6 ng	70 - 130%	FAIL
Fluoranthene	NA	EPA 8270C	1562	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	171	117 ng	70 - 130%	FAIL
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	366	117 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS1		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	87	132 ng	50 - 120%	PASS
Perylene	NA	EPA 8270C	180	99.4 ng	70 - 130%	FAIL
Phenanthrene	NA	EPA 8270C	1164	131 ng	70 - 130%	FAIL
Pyrene	NA	EPA 8270C	1248	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	105	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	112	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	110	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	110	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	85	1000 ng	47 - 110%	PASS
1-Methylnaphthalene	NA	EPA 8270C	105	131 ng	50 - 120%	PASS
1-Methylphenanthrene	NA	EPA 8270C	124	130 ng	70 - 130%	PASS
2,3,5-Trimethylnaphthal	NA	EPA 8270C	115	136 ng	60 - 120%	PASS
2,6-Dimethylnaphthalen	NA	EPA 8270C	111	132 ng	60 - 120%	PASS
2-Methylnaphthalene	NA	EPA 8270C	105	128.4 ng	50 - 120%	PASS
Acenaphthene	NA	EPA 8270C	120	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	102	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	162	99.5 ng	70 - 130%	FAIL
Benz[a]anthracene	NA	EPA 8270C	461	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	487	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	367	131 ng	70 - 130%	FAIL
Benzo[e]pyrene	NA	EPA 8270C	348	131 ng	70 - 130%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	406	117 ng	70 - 130%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	337	131 ng	70 - 130%	FAIL
Biphenyl	NA	EPA 8270C	97	132 ng	50 - 120%	PASS
Chrysene	NA	EPA 8270C	443	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	130	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	1085	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	127	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	444	117 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2	**Date Sampled:**	09-Jul-05	15:00
Replicate #:	MS2		LARE	**Date Received:**	11-Jul-05	
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Analyzed:**	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	101	132 ng	50 - 120%	PASS
Perylene	NA	EPA 8270C	196	99.4 ng	70 - 130%	FAIL
Phenanthrene	NA	EPA 8270C	403	131 ng	70 - 130%	FAIL
Pyrene	NA	EPA 8270C	986	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

PRECISION DATA

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Trace Metals

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26283*	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
					Date Received:
Batch ID:	2563-12039	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 13-Jul-05

CONSTITUENT	FRACTION	METHOD	BS1 % Recovery	BS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	93	94	1	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	103	105	2	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	108	106	2	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	101	101	0	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	96	93	3	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	104	103	1	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	105	105	0	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	104	103	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	103	104	1	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	109	109	0	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	103	102	1	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	104	106	2	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	107	114	6	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	103	102	1	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	108	109	1	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	104	107	3	0 - 30%	PASS
Strontium (Sr)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	102	102	0	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	106	106	0	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	103	103	0	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	107	106	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26649***	**Sample Description:**	QAQC LARE	CRM (ERA540) Lot# D037540	**Date Sampled:**
					Date Received:
Batch ID:	2563-12039	**Matrix:**	Sediment		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 13-Jul-05

CONSTITUENT	FRACTION	METHOD	CRM1 % Recovery	CRM2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	125	118	6	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	115	111	4	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	120	107	11	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	125	120	4	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	78	71	9	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	118	109	8	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	106	96	10	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	76	75	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	103	95	8	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	148	143	3	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	117	111	5	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	117	110	6	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	114	118	3	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	93	9	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	100	89	12	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	114	105	8	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	72	103	35	0 - 30%	FAIL
Strontium (Sr)	NA	EPA 6020	117	110	6	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	120	114	5	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	67	62	8	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	170	169	1	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	118	108	9	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	112	104	7	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	87	79	10	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	81	76	6	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	85	75	13	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	87	91	4	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	3	2.3	26	0 - 30%	PASS
Total Detectable DDTs	NA	EPA 8270C	3	2.3	26	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	90	98	9	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	88	103	16	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	98	103	5	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	90	90	0	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	83	80	4	0 - 30%	PASS
1-Methylnaphthalene	NA	EPA 8270C	4.6	4.6	0	0 - 30%	PASS
1-Methylphenanthrene	NA	EPA 8270C	12.6	11.5	9	0 - 30%	PASS
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	7.5	7	7	0 - 30%	PASS
2,6-Dimethylnaphthalene	NA	EPA 8270C	10.5	10.8	3	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	2.6	3.4	27	0 - 30%	PASS
Anthracene	NA	EPA 8270C	6.6	10	41	0 - 30%	FAIL
Benz[a]anthracene	NA	EPA 8270C	30.7	36.7	18	0 - 30%	PASS
Benzo[a]pyrene	NA	EPA 8270C	30.1	34	12	0 - 30%	PASS
Benzo[b]fluoranthene	NA	EPA 8270C	33.8	34.6	2	0 - 30%	PASS
Benzo[e]pyrene	NA	EPA 8270C	31.6	32.7	3	0 - 30%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	33.2	29.8	11	0 - 30%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	31.9	34.7	8	0 - 30%	PASS
Chrysene	NA	EPA 8270C	51.1	54.2	6	0 - 30%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	6.5	7.2	10	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	87.4	107	20	0 - 30%	PASS
Fluorene	NA	EPA 8270C	5.1	6.3	21	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	27.1	23.8	13	0 - 30%	PASS
Perylene	NA	EPA 8270C	15.7	15.7	0	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	33.5	45.8	31	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	84.4	97.1	14	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Total Detectable PAHs	NA	EPA 8270C	546.5	606.9	10	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	89	90	1	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	94	96	2	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	91	90	1	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	88	83	6	0 - 30%	PASS
2,4'-DDD	NA	EPA 8270C	73	76	4	0 - 30%	PASS
2,4'-DDE	NA	EPA 8270C	88	90	2	0 - 30%	PASS
2,4'-DDT	NA	EPA 8270C	67	72	7	0 - 30%	PASS
4,4'-DDD	NA	EPA 8270C	77	77	0	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	83	87	5	0 - 30%	PASS
4,4'-DDT	NA	EPA 8270C	77	83	8	0 - 30%	PASS
Aldrin	NA	EPA 8270C	98	86	13	0 - 30%	PASS
BHC-alpha	NA	EPA 8270C	77	79	3	0 - 30%	PASS
BHC-beta	NA	EPA 8270C	91	93	2	0 - 30%	PASS
BHC-delta	NA	EPA 8270C	85	97	13	0 - 30%	PASS
BHC-gamma	NA	EPA 8270C	91	94	3	0 - 30%	PASS
Chlordane-alpha	NA	EPA 8270C	80	85	6	0 - 30%	PASS
Chlordane-gamma	NA	EPA 8270C	77	83	8	0 - 30%	PASS
Dieldrin	NA	EPA 8270C	91	77	17	0 - 30%	PASS
Endosulfan Sulfate	NA	EPA 8270C	94	82	14	0 - 30%	PASS
Endosulfan-I	NA	EPA 8270C	69	88	24	0 - 30%	PASS
Endosulfan-II	NA	EPA 8270C	80	88	10	0 - 30%	PASS
Endrin	NA	EPA 8270C	74	80	8	0 - 30%	PASS
Endrin Ketone	NA	EPA 8270C	70	84	18	0 - 30%	PASS
Heptachlor	NA	EPA 8270C	84	83	1	0 - 30%	PASS
Heptachlor Epoxide	NA	EPA 8270C	81	75	8	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	70	75	7	0 - 30%	PASS
Mirex	NA	EPA 8270C	79	72	9	0 - 30%	PASS
trans-Nonachlor	NA	EPA 8270C	74	78	5	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	99	100	1	0 - 30%	PASS
PCB028	NA	EPA 8270C	107	103	4	0 - 30%	PASS
PCB031	NA	EPA 8270C	88	82	7	0 - 30%	PASS
PCB033	NA	EPA 8270C	104	100	4	0 - 30%	PASS
PCB037	NA	EPA 8270C	98	90	9	0 - 30%	PASS
PCB044	NA	EPA 8270C	89	89	0	0 - 30%	PASS
PCB049	NA	EPA 8270C	98	102	4	0 - 30%	PASS
PCB052	NA	EPA 8270C	105	102	3	0 - 30%	PASS
PCB066	NA	EPA 8270C	87	91	4	0 - 30%	PASS
PCB070	NA	EPA 8270C	104	99	5	0 - 30%	PASS
PCB074	NA	EPA 8270C	86	83	4	0 - 30%	PASS
PCB077	NA	EPA 8270C	88	83	6	0 - 30%	PASS
PCB081	NA	EPA 8270C	91	91	0	0 - 30%	PASS
PCB087	NA	EPA 8270C	102	103	1	0 - 30%	PASS
PCB095	NA	EPA 8270C	110	111	1	0 - 30%	PASS
PCB097	NA	EPA 8270C	89	92	3	0 - 30%	PASS
PCB099	NA	EPA 8270C	96	97	1	0 - 30%	PASS
PCB101	NA	EPA 8270C	103	96	7	0 - 30%	PASS
PCB105	NA	EPA 8270C	80	88	10	0 - 30%	PASS
PCB110	NA	EPA 8270C	89	94	5	0 - 30%	PASS
PCB114	NA	EPA 8270C	82	94	14	0 - 30%	PASS
PCB118	NA	EPA 8270C	86	88	2	0 - 30%	PASS
PCB119	NA	EPA 8270C	105	93	12	0 - 30%	PASS
PCB123	NA	EPA 8270C	90	87	3	0 - 30%	PASS
PCB126	NA	EPA 8270C	87	94	8	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	91	92	1	0 - 30%	PASS
PCB138	NA	EPA 8270C	105	88	18	0 - 30%	PASS
PCB141	NA	EPA 8270C	104	99	5	0 - 30%	PASS
PCB149	NA	EPA 8270C	101	97	4	0 - 30%	PASS
PCB151	NA	EPA 8270C	100	99	1	0 - 30%	PASS
PCB153	NA	EPA 8270C	104	97	7	0 - 30%	PASS
PCB156	NA	EPA 8270C	92	89	3	0 - 30%	PASS
PCB157	NA	EPA 8270C	90	80	12	0 - 30%	PASS
PCB158	NA	EPA 8270C	83	85	2	0 - 30%	PASS
PCB168+132	NA	EPA 8270C	94	96	2	0 - 30%	PASS
PCB169	NA	EPA 8270C	96	82	16	0 - 30%	PASS
PCB170	NA	EPA 8270C	81	86	6	0 - 30%	PASS
PCB177	NA	EPA 8270C	90	88	2	0 - 30%	PASS
PCB180	NA	EPA 8270C	97	92	5	0 - 30%	PASS
PCB183	NA	EPA 8270C	101	104	3	0 - 30%	PASS
PCB187	NA	EPA 8270C	103	98	5	0 - 30%	PASS
PCB189	NA	EPA 8270C	90	84	7	0 - 30%	PASS
PCB194	NA	EPA 8270C	101	100	1	0 - 30%	PASS
PCB200	NA	EPA 8270C	93	92	1	0 - 30%	PASS
PCB201	NA	EPA 8270C	101	86	16	0 - 30%	PASS
PCB206	NA	EPA 8270C	98	91	7	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563e*

CRG ID#:	*26303*	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	95	105	10	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	106	112	6	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	103	110	7	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	101	110	9	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	78	85	9	0 - 30%	PASS
1-Methylnaphthalene	NA	EPA 8270C	93	105	12	0 - 30%	PASS
1-Methylphenanthrene	NA	EPA 8270C	140	124	12	0 - 30%	PASS
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	92	115	22	0 - 30%	PASS
2,6-Dimethylnaphthalene	NA	EPA 8270C	90	111	21	0 - 30%	PASS
2-Methylnaphthalene	NA	EPA 8270C	92	105	13	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	139	120	15	0 - 30%	PASS
Acenaphthylene	NA	EPA 8270C	102	102	0	0 - 30%	PASS
Anthracene	NA	EPA 8270C	282	162	54	0 - 30%	FAIL
Benz[a]anthracene	NA	EPA 8270C	514	461	11	0 - 30%	PASS
Benzo[a]pyrene	NA	EPA 8270C	419	487	15	0 - 30%	PASS
Benzo[b]fluoranthene	NA	EPA 8270C	421	367	14	0 - 30%	PASS
Benzo[e]pyrene	NA	EPA 8270C	297	348	16	0 - 30%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	287	406	34	0 - 30%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	362	337	7	0 - 30%	PASS
Biphenyl	NA	EPA 8270C	87	97	11	0 - 30%	PASS
Chrysene	NA	EPA 8270C	480	443	8	0 - 30%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	143	130	10	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	1562	1085	36	0 - 30%	FAIL
Fluorene	NA	EPA 8270C	171	127	30	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	366	444	19	0 - 30%	PASS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563e***

CRG ID#:	***26303***	**Sample Description:**	7-9-CS-2 LARE	**Date Sampled:**	09-Jul-05	15:00
Batch ID:	2563-14043	**Matrix:**	Sediment	**Date Received:**	11-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	D. Gonsman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	22-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	87	101	15	0 - 30%	PASS
Perylene	NA	EPA 8270C	180	196	9	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	1164	403	97	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	1248	986	23	0 - 30%	PASS

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California ELAP Certificate # 2261

SUB-CONTRACT LAB REPORT

Project ID: P2563e
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
7-9-Sludge	0.00	0.00	0.00	0.00	0.00	0.04	0.50	1.65	3.77	6.50	8.41	9.69	10.57	10.84	10.31	9.80	8.17	6.32	4.16	3.28	2.02	1.21	1.07	0.93	0.59	0.16	0.00
7-9-FS-1	0.00	0.00	0.00	0.05	0.68	1.91	4.30	8.10	13.76	20.52	21.92	14.47	6.33	2.46	1.26	0.94	0.75	0.59	0.43	0.41	0.37	0.36	0.31	0.08	0.00	0.00	0.00
7-9-CS-1	0.00	0.06	1.98	7.82	18.57	21.89	15.10	9.88	7.99	5.94	3.84	2.17	1.29	0.87	0.70	0.65	0.55	0.42	0.27	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-9-FS-2	0.00	0.00	0.00	0.04	0.61	1.72	4.26	8.74	14.68	20.63	21.33	14.56	6.61	2.45	1.12	0.76	0.57	0.44	0.32	0.32	0.31	0.33	0.20	0.00	0.00	0.00	0.00
7-9-CS-2	0.00	0.07	2.28	7.63	16.53	21.27	17.41	12.71	9.89	6.02	2.89	1.23	0.65	0.45	0.37	0.35	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Project ID: P2563e
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
7-9-Sludge	20-Jul-05	0.00	20.88	69.86	9.26	79.12	1.65	4.49	16.63	54.04	96.55	9.26	7.81	5.91	4.21	3.37	28.62	16.63	18.65	5.13	5.91	5.75	1.80	-0.44	-2.64
7-9-FS-1	20-Jul-05	0.00	71.24	27.23	1.53	28.76	13.64	32.61	61.84	122.03	206.68	6.20	4.94	4.01	3.03	2.27	79.04	61.84	55.13	3.66	4.01	4.18	0.95	-0.37	-3.06
7-9-CS-1	20-Jul-05	0.00	93.06	6.91	0.03	6.94	32.54	84.96	251.00	446.01	621.66	4.94	3.55	1.99	1.15	0.67	270.02	251.00	305.80	1.88	1.99	1.70	1.20	-0.09	-2.78
7-9-FS-2	20-Jul-05	0.00	72.01	26.83	1.16	27.99	17.05	33.26	63.22	123.14	201.72	5.88	4.91	3.98	3.02	2.30	79.75	63.22	55.22	3.64	3.98	4.18	0.95	-0.36	-2.89
7-9-CS-2	20-Jul-05	0.00	96.71	3.29	0.00	3.29	54.27	100.99	239.30	440.90	628.46	4.20	3.30	2.05	1.17	0.66	271.08	239.30	295.37	1.87	2.05	1.75	1.07	-0.17	-2.66

*Percentage of the sample retained on a 2 mm sieve.

CHAIN-OF-CUSTODY

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
PHONE (310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

Client Name	Steve Cappellino
Address	Anchor Environmental
Sampled By	Steve Cappellino
Project Manager	Same
Phone	949-833-7150 x
FAX	949-833-~~7150~~ 7151
Email	scappellino@anchorenviron
Project Name/Number	CARE
P.O. Number	

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	TSS	TRACE METALS	PEST/PCBS	PAH's	~~Particle Size~~	Grain Size (PSA)					
1	7-9-Slurry 1	7/9/05	12:00	SW	1/1	GLASS/HDPE	X	X	X	X							
2	7-9-WBF1-1	7/9/05	12:00	SW	1/1	↓	X	X	X	X							
3	7-9-WBF1-50	7/9/05	12:00	SW	1/1	↓	X	X	X	X							
4	7-9-Sludge	7/9/05	15:00	SED	1	GLASS		X	X	X		X					
5	7-9-FS1	7/9/05	15:00	SED	1	↓		X	X	X		X					
6	7-9-CS-1	7/9/05	15:00	SED	1	↓		X	X	X		X					
7	7-8-FS-2	7/8/05	15:00	SED	1	↓		X	X	X		X					
8	7-8-CS-2	7/8/05	15:00	SED	1	↓		X	X	X		X					
9																	
10																	

P25639 Rush TAT

P25632

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

Rush TAT on 7/9 water samples

CRG Project ID: _____ (lab use only)

CRG Sample ID: _____ (lab use only)

RELINQUISHED BY

Signature:	[signature]
Print:	Steve Cappellino
Company:	Anchor Environmental
DATE:	7/11/05 TIME: 0900

RECEIVED BY

Signature:	[signature]
Print:	Chuck Vicuna
Company:	CRG
DATE:	7-11-05 TIME: 0922

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

CRG
Marine Laboratories, Inc.

SAMPLE RECEIPT FORM

CRG Project ID
P2563e

CLIENT NAME: Anchor

DATE RECEIVED: 7-11-05

COURIER INFORMATION		
☒ CRG	☐ FEDEX	TRACKING NUMBER
☐ OTHER*	☐ UPS	

TEMPERATURE
10 °C
☐ BLUE ICE
☒ WET ICE
☐ NO ICE

Chain-of-Custody
☑ INCLUDED
☑ SIGNED
☐ NOT INCLUDED

SAMPLE MATRIX
☑ LIQUID
☑ SOLID
☐ OTHER*

CONDITION OF SAMPLES UPON ARRIVAL	YES	NO*	NA
All sample containers intact and good condition	☑	☐	☐
All samples listed on COC are present	☑	☐	☐
Sample ID on containers consistent with COC	☑	☐	☐
Correct containers used for analyses requested	☑	☐	☐
All samples received within method holding time	☑	☐	☐

*NOTES

COMPLETED BY: C.V.

2020 Del Amo Boulevard Suite 200, Torrance, CA 90501 · (310) 533-5190 · FAX (310) 533-5003

Raw Data Packet 7

Total Organic Carbon data for Sample IDs 7-11-FS-1, 7-11-CS-1, 7-11-FSW-1, 7-11-CSW-1, 7-12-FS-1, 7-12-CS-1, 7-12-FSW-1, 7-12-CSW-1, collected on July 11, 2005

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-11-FS-1
AMS Sample ID: 22533

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.18	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-11-CS-1
AMS Sample ID: 22534

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.22	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-11-FSW-1
AMS Sample ID: 22535

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.47	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-11-CSW-1
AMS Sample ID: 22536

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.20	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-12-FS-1
AMS Sample ID: 22537

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.45	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-12-CS-1
AMS Sample ID: 22538

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.24	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-12-FSW-1
AMS Sample ID: 22539

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.42	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f
Client Sample ID: 7-12-CSW-1
AMS Sample ID: 22540

AMS Project Number: 2005-598-15
Date Sampled: 7/11/2005
Date Received: 7/21/2005

Parameter	Result	Unit	Flag	MDL	Method	Matrix	Date Analyzed
Total Organic Carbon	0.08	%		0.01	EPA 9060	Sediment	7/27/2005

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Applied Marine Sciences, Inc.

502 N. Hwy 3, Suite B, League City, TX 77573, (281) 554-7272 Fax (281) 554-6356

Client: CRG Marine Laboratories, Inc.
Project Number: P2563f

AMS Project No.: 2005-598-15
Date Analyzed: 7/27/2005
Matrix: Sediment
Method: EPA 9060
Batch ID: 072705-02

Continuing Calibration Verification (SRM) Data

AMS Sample ID	SRM Result (%)	SRM Theoretical (%)	Relative % Difference (%)	QC Limits (% RPD)
CC02	4.77	4.80	0.63	<5

TOC Method Blank

AMS Sample ID	Sample Weight (g)	Sample Result (µg C)	TOC (%)	MDL (%)
CB02	0.5658	7.47	ND	0.01

Sample Duplicate Analysis

AMS Sample ID	Sample Result (%)	Replicate Result (%)	Relative % Difference (%)	QC Limits (% RPD)
22540	0.08	0.08	1.67	<25

Samples in Batch (AMS ID): 22533 22536 22539
22534 22537 22540
22535 22538

Quality Assurance: These analyses were performed in accordance with EPA guidelines for quality assurance.

KS Davis, P.G.
AMS, Inc. Project Manager

Raw Data Packet 8

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congerners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-11-FS-1, 7-11-CS-1, 7-11-FSW-1, 7-11-CSW-1, 7-12-FS-1, 7-12-CS-1, 7-12-FSW-1, 7-12-CSW-1, collected on July 11, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

August 3, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563f
Anchor Project: LARE

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your LARE project. According to the chain-of-custody, 8 sediments and 2 seawater samples were received intact and cool at CRG on July 12, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 6020
- Chlorinated Pesticides By GCMS Using EPA Method 8270
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 8270
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 8270
- Total Solids Using SM 2540 D

Grain Size and TOC were subcontracted to other laboratories, results will follow.

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	14300	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.54	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.42	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	149	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.41	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.54	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	27.2	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	8.6	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	26.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	20600	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	32.5	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	324	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0498	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.35	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	19.5	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.94	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	81	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.19	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	2.63	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	2040	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	50.8	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	116	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	14000	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.51	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.33	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	150	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.39	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.55	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	26.4	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	8.53	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	26.5	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	20200	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	29.8	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	318	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0758	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.33	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	19.6	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.81	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	80.5	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.19	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	2.69	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1880	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	49.1	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	113	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	7820	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.33	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.54	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	74.8	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.23	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.35	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	12.9	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.54	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	14.7	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	12200	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	59.9	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	169	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.058	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.65	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	9.53	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.25	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	43.6	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.1	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.26	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	957	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	30.6	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	60.7	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	10300	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.78	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.77	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	110	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.29	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.33	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	19.7	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	6.21	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	23.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	16200	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	30.1	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	248	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0305	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.92	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	13.8	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.37	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	58.6	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.13	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	3.1	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1550	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	39.9	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	87.5	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	5600	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.31	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	0.99	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	49.6	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.18	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.21	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	10.4	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	3.4	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	7.73	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	10300	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	10.3	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	138	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0208	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.38	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	6.59	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	32.3	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.06	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	0.66	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	734	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	25.6	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	43.5	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	14000	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.41	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.18	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	145	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.39	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.55	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	25.8	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	8.43	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	24.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	20300	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	27.8	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	318	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0783	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.17	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	18.5	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.7	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.34	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	78.3	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.19	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	2.37	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1840	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	49.4	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	105	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	8500	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.37	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.78	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	84	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.26	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.35	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	14.1	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.81	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	14.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	13000	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	16.7	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	186	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0303	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.74	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	13.7	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.72	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.51	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	45.5	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.1	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.19	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1070	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	33.2	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	71.3	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	11700	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.4	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.12	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	129	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.34	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.52	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	22.9	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	7.41	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	25.1	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	17900	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	29.6	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	277	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0505	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.26	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	17.1	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	0.54	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.67	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	55.6	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.17	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	2.1	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1670	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	44	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	102	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	8300	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	0.34	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.44	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	79.2	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.25	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.39	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	15.6	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.79	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	13.9	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	13400	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	20.6	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	186	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.0285	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.68	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	10.4	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	0.86	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	48.9	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.1	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.14	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1050	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	33.9	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	65.3	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CHLORINATED PESTICIDE RESULTS

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	92	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	97	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	98	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	80	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E 1.4	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	6.1	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 2.7	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 3	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	7.5	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 1.9	ng/dry g	1	5	1	NA

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	90	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	100	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	81	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E 1.1	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E 2.9	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 1.1	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 2.5	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CRG Marine Laboratories, Inc.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	4	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 1.1	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	94	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	99	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	87	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E 4.5	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 2.7	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 2.2	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	4.5	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 1.7	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	89	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	88	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	98	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	88	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	0	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	89	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	99	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	82	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E 1.9	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	6.2	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 1.4	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 3.4	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	8.1	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 2.4	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	90	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	98	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	83	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	E 2.9	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	8	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 3	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 3.4	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	10.9	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 2.3	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	90	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	91	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	95	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	84	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E 2	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 1.5	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 1.4	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CRG Marine Laboratories, Inc.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	2	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 1.1	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	84	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	86	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	96	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	79	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	6.9	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 2	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 2.3	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	6.9	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E 2.2	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	90	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	92	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	96	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	87	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E 2.9	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E 2.3	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E 2.3	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	2.9	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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AROCLOR-BASED PCB RESULTS

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CONGENER-BASED PCB RESULTS

CRG Marine Laboratories, Inc.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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CRG Marine Laboratories, Inc.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	95	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	118	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	126	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	118	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	69	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E4.8	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	15.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E3.4	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	8.1	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	8.7	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	5.3	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	14.7	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	78.4	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	88.8	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	96.8	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	86.2	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	95.7	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	93	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E3.2	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	134	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	18.3	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	246	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	9.2	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	82.6	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	6.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	42.2	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	106	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	230	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	1477.9	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	100	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	121	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	128	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	127	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	67	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E2.7	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	8.8	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	E4	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	E4.3	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E2.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	8.5	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	37.9	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	41	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	42.4	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	41	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	48.5	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	41.5	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	63.9	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	106	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	5.2	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	35.1	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26306***	**Sample Description:**	7-11-CS-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	E3.4	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	21.8	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	46.8	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	102	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	679.3	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	106	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	126	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	129	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	128	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	79	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E2.6	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	8.3	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	5.7	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E3.3	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	7.9	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	41.3	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	50.6	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	54.4	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	48	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	58.8	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	52.7	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	70.9	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	11	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	121	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	6.2	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	46.7	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26307***	**Sample Description:**	7-11-FSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	E4	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	27.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	52.9	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	116	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	798.1	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	100	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	120	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	122	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	121	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	65	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	E2.3	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	7.8	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	47.8	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	56.1	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	59.1	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	47.6	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	52.4	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	59.1	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	73.2	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	10.4	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	164	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	5.3	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	52	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26308***	**Sample Description:**	7-11-CSW-1	**Date Sampled:**	11-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	E1.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	19.9	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	65.8	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	127	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	861.2	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	95	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	120	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	123	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	125	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	73	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E4.9	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	23.4	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	8.7	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	8.4	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	11.1	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E1.5	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	25.5	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	151	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	165	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	156	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	134	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	158	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	162	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E3.3	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	220	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	31.8	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	421	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	13.4	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	145	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	7.9	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	61.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	193	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	376	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	2486.4	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	101	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	120	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	126	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	126	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	71	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E2.9	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	11.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	E4.5	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	6.8	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E3.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E1.1	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	10.4	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	51.8	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	60.6	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	62.9	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	58	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	63.7	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	62.1	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	83	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	12	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	153	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	6.8	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	51.1	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26320***	**Sample Description:**	7-12-CS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	6.7	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	26.8	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	73.7	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	139	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	956.61	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	96	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	120	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	126	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	125	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	68	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E3.4	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	16.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E3.7	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	7.7	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	7.6	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	5.1	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E1.2	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	15.4	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	85.9	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	95.7	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	99.4	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	91	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	101	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	93.8	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E2.9	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	141	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	20	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	248	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	9.2	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	86.9	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26321***	**Sample Description:**	7-12-FSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	5.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	42.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	102	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	234	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	1519.5	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	99	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	117	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	123	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	122	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	71	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	7.3	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E1.7	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	E3.8	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E1.8	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	5.6	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	24.5	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	28.4	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	31	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	31.4	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	37.6	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	27.5	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E1.6	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	45.5	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	6	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	76	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	E4.6	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	24.5	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26322***	**Sample Description:**	7-12-CSW-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	E3.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	17.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	31.3	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	74.7	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	490.8	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	98	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	121	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	127	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	126	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	73	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E3.7	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	18.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E3.5	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	8.2	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	7	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E4.5	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	17.5	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	100	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	114	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	117	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	107	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	129	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	121	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E2.4	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	162	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	23.4	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	284	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	9.7	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	109	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	6.2	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	49.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	109	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	264	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	1771.5	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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GENERAL CHEMISTRY
RESULTS

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26323***
Replicate #: R1
Batch ID: 2563-12101

Sample Description: 7-12-Solids LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 12-Jul-05 13:00
Date Received: 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	Total	EPA 160.3	12.8	Percent	0.1	0.1	1	18-Jul-05	18-Jul-05
Total Solids	Total	SM 2540 D	150000	mg/L	0.5	0.5	1	05-Aug-02	05-Aug-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES = Not Enough Sample

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26324***
Replicate #: R1
Batch ID: 2563-12101

Sample Description: 7-12-Solids2 LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 12-Jul-05 13:00
Date Received: 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	Total	EPA 160.3	9.9	Percent	0.1	0.1	1	18-Jul-05	18-Jul-05
Total Solids	Total	SM 2540 D	172000	mg/L	0.5	0.5	1	05-Aug-02	05-Aug-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES = Not Enough Sample

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26324***
Replicate #: R2
Batch ID: 2563-12101

Sample Description: 7-12-Solids2 LARE
Matrix: Seawater
Analyst: C. Raubach

Date Sampled: 12-Jul-05 13:00
Date Received: 12-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	Total	EPA 160.3	12.4	Percent	0.1	0.1	1	18-Jul-05	18-Jul-05
Total Solids	Total	SM 2540 D	171000	mg/L	0.5	0.5	1	05-Aug-02	05-Aug-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES = Not Enough Sample

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QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26304*** **Sample Description:** QAQC Procedural Blank
Replicate #: B1 LARE
Batch ID: 2563-12041 **Matrix:** DI Water
Instrument: ICPMS #1 HP 4500 **Analyst:** P. Hershelman

Date Sampled:
Date Received:
Date Processed: 18-Jul-05
Date Analyzed: 27-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	ND	µg/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC	Procedural Blank	**Date Sampled:**
Replicate #:	B1		LARE		**Date Received:**
Batch ID:	2563-14050	**Matrix:**	DI Water		**Date Processed:** 21-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero		**Date Analyzed:** 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	107	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	105	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	103	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	99	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14050	**Matrix:**	DI Water		**Date Processed:** 21-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero		**Date Analyzed:** 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	0	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14050	**Matrix:**	DI Water		**Date Processed:** 21-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero		**Date Analyzed:** 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26304*** **Sample Description:** QAQC LARE — Procedural Blank

Replicate #: B1

Batch ID: 2563-14050 **Matrix:** DI Water

Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** S. Botero

Date Sampled:

Date Received:

Date Processed: 21-Jul-05

Date Analyzed: 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26304*** **Sample Description:** QAQC LARE Procedural Blank **Date Sampled:**

Replicate #: B1 **Date Received:**

Batch ID: 2563-14050 **Matrix:** DI Water **Date Processed:** 21-Jul-05

Instrument: GC/MS #2 Shimadzu QP2010 **Analyst:** S. Botero **Date Analyzed:** 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14050	**Matrix:**	DI Water		**Date Processed:** 21-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero		**Date Analyzed:** 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	107	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	118	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	127	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	117	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	93	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14050	**Matrix:**	DI Water		**Date Processed:** 21-Jul-05
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero		**Date Analyzed:** 26-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#: ***26304***
Replicate #: B1
Batch ID: 2563-12101

Sample Description: QAQC LARE Procedural Blank
Matrix: DI Water
Analyst: C. Raubach

Date Sampled:
Date Received:

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	DATE PROCESSED	DATE ANALYZED
Percent Solids	Total	EPA 160.3	ND	Percent	0.1	0.1	1	18-Jul-05	18-Jul-05
Total Solids	Total	SM 2540 D	ND	mg/L	0.5	0.5	1	05-Aug-02	05-Aug-05

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable; NPW= No Pore Water; NES = Not Enough Sample

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ACCURACY DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC	Procedural Blank		**Date Sampled:**	
Replicate #:	BS1		LARE			**Date Received:**	
Batch ID:	2563-1024	**Matrix:**	DI Water			**Date Processed:**	27-Jul-05
Instrument:	Hydra AF Gold+	**Analyst:**	R. Moeller			**Date Analyzed:**	27-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Mercury (Hg)	NA	EPA 245.7	103	2 µg/L	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC	Procedural Blank		**Date Sampled:**	
Replicate #:	BS2		LARE			**Date Received:**	
Batch ID:	2563-1024	**Matrix:**	DI Water			**Date Processed:**	27-Jul-05
Instrument:	Hydra AF Gold+	**Analyst:**	R. Moeller			**Date Analyzed:**	27-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Mercury (Hg)	NA	EPA 245.7	100	2 µg/L	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26795***	**Sample Description:**	QAQC	CRM (RTC016-050) Lot# BE016	**Date Sampled:**		
Replicate #:	CRM1		LARE		**Date Received:**		
Batch ID:	2563-12041	**Matrix:**	Sediment		**Date Processed:**	18-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:**	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	96	27330 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	100	0.3615 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	101	7.958 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	94	175.1 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	98	0.968 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	102	0.317 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	98	41.42 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	100	7.2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	100	16.07 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	101	19305 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	100	16.38 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	100	196.37 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	94	0.158 µg/L	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	105	1.112 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	101	20.255 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	105	0.824 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	88	1.056 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	99	77.77 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	96	0.368 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	95	1.398 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	98	355.3 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	98	71.73 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	100	73.11 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	95	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	103	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	100	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	89	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	98	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	98	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	87	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	100	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	105	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	77	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	94	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	92	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	93	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	99	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	95	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	102	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	97	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	90	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	84	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	77	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	86	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	69	300 ng	32 - 141%	PASS
Endrin Ketone	NA	EPA 8270C	83	300 ng	50 - 130%	PASS
Heptachlor	NA	EPA 8270C	76	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	96	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	85	300 ng	MDL - 157%	PASS
Mirex	NA	EPA 8270C	93	300 ng	56 - 123%	PASS
trans-Nonachlor	NA	EPA 8270C	104	300 ng	47 - 143%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	90	1000 ng	46 - 119%	PASS
(PCB112)	NA	EPA 8270C	102	1000 ng	52 - 123%	PASS
(PCB198)	NA	EPA 8270C	102	1000 ng	59 - 123%	PASS
(TCMX)	NA	EPA 8270C	83	1000 ng	40 - 110%	PASS
2,4'-DDD	NA	EPA 8270C	100	300 ng	56 - 129%	PASS
2,4'-DDE	NA	EPA 8270C	96	400 ng	60 - 129%	PASS
2,4'-DDT	NA	EPA 8270C	89	400 ng	39 - 130%	PASS
4,4'-DDD	NA	EPA 8270C	100	300 ng	46 - 138%	PASS
4,4'-DDE	NA	EPA 8270C	100	300 ng	69 - 116%	PASS
4,4'-DDT	NA	EPA 8270C	83	300 ng	34 - 136%	PASS
Aldrin	NA	EPA 8270C	99	300 ng	45 - 128%	PASS
BHC-alpha	NA	EPA 8270C	94	300 ng	60 - 123%	PASS
BHC-beta	NA	EPA 8270C	99	300 ng	45 - 140%	PASS
BHC-delta	NA	EPA 8270C	96	300 ng	29 - 113%	PASS
BHC-gamma	NA	EPA 8270C	94	300 ng	59 - 110%	PASS
Chlordane-alpha	NA	EPA 8270C	102	300 ng	64 - 117%	PASS
Chlordane-gamma	NA	EPA 8270C	94	300 ng	46 - 125%	PASS
Dieldrin	NA	EPA 8270C	79	300 ng	46 - 125%	PASS
Endosulfan Sulfate	NA	EPA 8270C	97	300 ng	25 - 107%	PASS
Endosulfan-I	NA	EPA 8270C	88	300 ng	54 - 141%	PASS
Endosulfan-II	NA	EPA 8270C	92	300 ng	MDL - 135%	PASS
Endrin	NA	EPA 8270C	88	300 ng	32 - 141%	PASS
Endrin Ketone	NA	EPA 8270C	79	300 ng	50 - 130%	PASS
Heptachlor	NA	EPA 8270C	77	300 ng	43 - 122%	PASS
Heptachlor Epoxide	NA	EPA 8270C	93	300 ng	56 - 122%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	85	300 ng	MDL - 157%	PASS
Mirex	NA	EPA 8270C	94	300 ng	56 - 123%	PASS
trans-Nonachlor	NA	EPA 8270C	97	300 ng	47 - 143%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	113	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	108	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	72	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	78	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	92	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	84	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	108	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	115	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	65	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	78	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	91	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	72	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	94	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	67	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	76	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	77	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	97	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	108	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	113	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	74	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	104	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	86	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	86	160 ng	65 - 135%	PASS
PCB028	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB031	NA	EPA 8270C	79	160 ng	65 - 135%	PASS
PCB033	NA	EPA 8270C	101	160 ng	65 - 135%	PASS
PCB037	NA	EPA 8270C	95	160 ng	65 - 135%	PASS
PCB044	NA	EPA 8270C	74	160 ng	65 - 135%	PASS
PCB049	NA	EPA 8270C	111	160 ng	65 - 135%	PASS
PCB052	NA	EPA 8270C	108	160 ng	65 - 135%	PASS
PCB066	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB070	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB074	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB077	NA	EPA 8270C	81	160 ng	65 - 135%	PASS
PCB081	NA	EPA 8270C	75	160 ng	65 - 135%	PASS
PCB087	NA	EPA 8270C	109	160 ng	65 - 135%	PASS
PCB095	NA	EPA 8270C	112	160 ng	65 - 135%	PASS
PCB097	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB099	NA	EPA 8270C	99	160 ng	65 - 135%	PASS
PCB101	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB105	NA	EPA 8270C	79	160 ng	65 - 135%	PASS
PCB110	NA	EPA 8270C	98	160 ng	65 - 135%	PASS
PCB114	NA	EPA 8270C	87	160 ng	65 - 135%	PASS
PCB118	NA	EPA 8270C	88	160 ng	65 - 135%	PASS
PCB119	NA	EPA 8270C	96	160 ng	65 - 135%	PASS
PCB123	NA	EPA 8270C	93	160 ng	65 - 135%	PASS
PCB126	NA	EPA 8270C	87	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	83	320 ng	65 - 135%	PASS
PCB138	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB141	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB149	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB151	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB153	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB156	NA	EPA 8270C	77	160 ng	65 - 135%	PASS
PCB157	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB158	NA	EPA 8270C	90	160 ng	65 - 135%	PASS
PCB168+132	NA	EPA 8270C	95	320 ng	65 - 135%	PASS
PCB169	NA	EPA 8270C	82	160 ng	65 - 135%	PASS
PCB170	NA	EPA 8270C	105	160 ng	65 - 135%	PASS
PCB177	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB180	NA	EPA 8270C	107	160 ng	65 - 135%	PASS
PCB183	NA	EPA 8270C	102	160 ng	65 - 135%	PASS
PCB187	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB189	NA	EPA 8270C	97	160 ng	65 - 135%	PASS
PCB194	NA	EPA 8270C	103	160 ng	65 - 135%	PASS
PCB200	NA	EPA 8270C	94	160 ng	65 - 135%	PASS
PCB201	NA	EPA 8270C	100	160 ng	65 - 135%	PASS
PCB206	NA	EPA 8270C	113	160 ng	65 - 135%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	99	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	116	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	115	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	108	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	82	1000 ng	47 - 110%	PASS
1-Methylnaphthalene	NA	EPA 8270C	97	131 ng	50 - 120%	PASS
1-Methylphenanthrene	NA	EPA 8270C	101	130 ng	70 - 130%	PASS
2,3,5-Trimethylnaphthal	NA	EPA 8270C	107	136 ng	60 - 120%	PASS
2,6-Dimethylnaphthalen	NA	EPA 8270C	94	132 ng	60 - 120%	PASS
2-Methylnaphthalene	NA	EPA 8270C	91	128.4 ng	50 - 120%	PASS
Acenaphthene	NA	EPA 8270C	100	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	101	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	108	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	-105	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	-142	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	-19	131 ng	70 - 130%	FAIL
Benzo[e]pyrene	NA	EPA 8270C	45	131 ng	70 - 130%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	-82	117 ng	70 - 130%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	-108	131 ng	70 - 130%	FAIL
Biphenyl	NA	EPA 8270C	100	132 ng	50 - 120%	PASS
Chrysene	NA	EPA 8270C	-131	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	86	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	-291	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	100	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	-12	117 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS1		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	75	132 ng	50 - 120%	PASS
Perylene	NA	EPA 8270C	26	99.4 ng	70 - 130%	FAIL
Phenanthrene	NA	EPA 8270C	-79	131 ng	70 - 130%	FAIL
Pyrene	NA	EPA 8270C	-218	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	93	1000 ng	52 - 125%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	114	1000 ng	57 - 128%	PASS
(d12-Chrysene)	NA	EPA 8270C	119	1000 ng	61 - 126%	PASS
(d12-Perylene)	NA	EPA 8270C	119	1000 ng	53 - 122%	PASS
(d8-Naphthalene)	NA	EPA 8270C	72	1000 ng	47 - 110%	PASS
1-Methylnaphthalene	NA	EPA 8270C	92	131 ng	50 - 120%	PASS
1-Methylphenanthrene	NA	EPA 8270C	117	130 ng	70 - 130%	PASS
2,3,5-Trimethylnaphthal	NA	EPA 8270C	100	136 ng	60 - 120%	PASS
2,6-Dimethylnaphthalen	NA	EPA 8270C	90	132 ng	60 - 120%	PASS
2-Methylnaphthalene	NA	EPA 8270C	86	128.4 ng	50 - 120%	PASS
Acenaphthene	NA	EPA 8270C	86	126 ng	70 - 130%	PASS
Acenaphthylene	NA	EPA 8270C	103	131.2 ng	60 - 120%	PASS
Anthracene	NA	EPA 8270C	112	99.5 ng	70 - 130%	PASS
Benz[a]anthracene	NA	EPA 8270C	-82	114 ng	70 - 130%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	-89	119 ng	70 - 130%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	21	131 ng	70 - 130%	FAIL
Benzo[e]pyrene	NA	EPA 8270C	80	131 ng	70 - 130%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	-25	117 ng	70 - 130%	FAIL
Benzo[k]fluoranthene	NA	EPA 8270C	-72	131 ng	70 - 130%	FAIL
Biphenyl	NA	EPA 8270C	92	132 ng	50 - 120%	PASS
Chrysene	NA	EPA 8270C	-57	132 ng	70 - 130%	FAIL
Dibenz[a,h]anthracene	NA	EPA 8270C	89	98.6 ng	70 - 130%	PASS
Fluoranthene	NA	EPA 8270C	-288	132 ng	70 - 130%	FAIL
Fluorene	NA	EPA 8270C	104	117 ng	70 - 130%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	-7	117 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1	**Date Sampled:**	12-Jul-05	13:00
Replicate #:	MS2		LARE	**Date Received:**	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	70	132 ng	50 - 120%	PASS
Perylene	NA	EPA 8270C	65	99.4 ng	70 - 130%	FAIL
Phenanthrene	NA	EPA 8270C	-87	131 ng	70 - 130%	FAIL
Pyrene	NA	EPA 8270C	-184	132 ng	70 - 130%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PRECISION DATA

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26304***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
					Date Received:
Batch ID:	2563-1024	**Matrix:**	DI Water		**Date Processed:** 27-Jul-05
Instrument:	Hydra AF Gold+	**Analyst:**	R. Moeller		**Date Analyzed:** 27-Jul-05

CONSTITUENT	FRACTION	METHOD	BS1 % Recovery	BS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Mercury (Hg)	NA	EPA 245.7	103	100	3	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26305***	**Sample Description:**	7-11-FS-1 LARE	**Date Sampled:**	11-Jul-05	13:00
Batch ID:	2563-12041	**Matrix:**	Sediment	**Date Received:**	12-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	18-Jul-05	
				Date Analyzed:	27-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	14300	14000	2	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	0.54	0.51	6	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	2.42	2.33	4	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	149	150	1	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	0.41	0.39	5	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.54	0.55	2	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	27.2	26.4	3	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	8.6	8.53	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	26.1	26.5	2	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	20600	20200	2	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	32.5	29.8	9	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	324	318	2	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	0.0498	0.0758	41	0 - 30%	FAIL
Molybdenum (Mo)	NA	EPA 6020	1.35	1.33	1	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	19.5	19.6	1	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	0.94	0.81	15	0 - 30%	PASS
Strontium (Sr)	NA	EPA 6020	81	80.5	1	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	0.19	0.19	0	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	2.63	2.69	2	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	2040	1880	8	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	50.8	49.1	3	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	116	113	3	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	89	90	1	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	99	98	1	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	100	100	0	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	82	83	1	0 - 30%	PASS
4,4'-DDD	NA	EPA 8270C	1.9	2.9	42	0 - 30%	FAIL
4,4'-DDE	NA	EPA 8270C	6.2	8	25	0 - 30%	PASS
Chlordane-alpha	NA	EPA 8270C	1.4	3	73	0 - 30%	FAIL
Chlordane-gamma	NA	EPA 8270C	3.4	3.4	0	0 - 30%	PASS
Total Detectable DDTs	NA	EPA 8270C	8.1	10.9	29	0 - 30%	PASS
trans-Nonachlor	NA	EPA 8270C	2.4	2.3	4	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(PCB030)	NA	EPA 8270C	95	90	5	0 - 30%	PASS
(PCB112)	NA	EPA 8270C	103	102	1	0 - 30%	PASS
(PCB198)	NA	EPA 8270C	100	102	2	0 - 30%	PASS
(TCMX)	NA	EPA 8270C	89	83	7	0 - 30%	PASS
2,4'-DDD	NA	EPA 8270C	98	100	2	0 - 30%	PASS
2,4'-DDE	NA	EPA 8270C	98	96	2	0 - 30%	PASS
2,4'-DDT	NA	EPA 8270C	87	89	2	0 - 30%	PASS
4,4'-DDD	NA	EPA 8270C	100	100	0	0 - 30%	PASS
4,4'-DDE	NA	EPA 8270C	105	100	5	0 - 30%	PASS
4,4'-DDT	NA	EPA 8270C	77	83	8	0 - 30%	PASS
Aldrin	NA	EPA 8270C	94	99	5	0 - 30%	PASS
BHC-alpha	NA	EPA 8270C	92	94	2	0 - 30%	PASS
BHC-beta	NA	EPA 8270C	93	99	6	0 - 30%	PASS
BHC-delta	NA	EPA 8270C	99	96	3	0 - 30%	PASS
BHC-gamma	NA	EPA 8270C	95	94	1	0 - 30%	PASS
Chlordane-alpha	NA	EPA 8270C	102	102	0	0 - 30%	PASS
Chlordane-gamma	NA	EPA 8270C	97	94	3	0 - 30%	PASS
Dieldrin	NA	EPA 8270C	90	79	13	0 - 30%	PASS
Endosulfan Sulfate	NA	EPA 8270C	84	97	14	0 - 30%	PASS
Endosulfan-I	NA	EPA 8270C	77	88	13	0 - 30%	PASS
Endosulfan-II	NA	EPA 8270C	86	92	7	0 - 30%	PASS
Endrin	NA	EPA 8270C	69	88	24	0 - 30%	PASS
Endrin Ketone	NA	EPA 8270C	83	79	5	0 - 30%	PASS
Heptachlor	NA	EPA 8270C	76	77	1	0 - 30%	PASS
Heptachlor Epoxide	NA	EPA 8270C	96	93	3	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Methoxychlor	NA	EPA 8270C	85	85	0	0 - 30%	PASS
Mirex	NA	EPA 8270C	93	94	1	0 - 30%	PASS
trans-Nonachlor	NA	EPA 8270C	104	97	7	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB018	NA	EPA 8270C	102	86	17	0 - 30%	PASS
PCB028	NA	EPA 8270C	113	103	9	0 - 30%	PASS
PCB031	NA	EPA 8270C	84	79	6	0 - 30%	PASS
PCB033	NA	EPA 8270C	108	101	7	0 - 30%	PASS
PCB037	NA	EPA 8270C	87	95	9	0 - 30%	PASS
PCB044	NA	EPA 8270C	72	74	3	0 - 30%	PASS
PCB049	NA	EPA 8270C	103	111	7	0 - 30%	PASS
PCB052	NA	EPA 8270C	103	108	5	0 - 30%	PASS
PCB066	NA	EPA 8270C	78	97	22	0 - 30%	PASS
PCB070	NA	EPA 8270C	92	98	6	0 - 30%	PASS
PCB074	NA	EPA 8270C	94	87	8	0 - 30%	PASS
PCB077	NA	EPA 8270C	84	81	4	0 - 30%	PASS
PCB081	NA	EPA 8270C	86	75	14	0 - 30%	PASS
PCB087	NA	EPA 8270C	108	109	1	0 - 30%	PASS
PCB095	NA	EPA 8270C	115	112	3	0 - 30%	PASS
PCB097	NA	EPA 8270C	94	97	3	0 - 30%	PASS
PCB099	NA	EPA 8270C	101	99	2	0 - 30%	PASS
PCB101	NA	EPA 8270C	107	100	7	0 - 30%	PASS
PCB105	NA	EPA 8270C	65	79	19	0 - 30%	PASS
PCB110	NA	EPA 8270C	100	98	2	0 - 30%	PASS
PCB114	NA	EPA 8270C	78	87	11	0 - 30%	PASS
PCB118	NA	EPA 8270C	87	88	1	0 - 30%	PASS
PCB119	NA	EPA 8270C	82	96	16	0 - 30%	PASS
PCB123	NA	EPA 8270C	91	93	2	0 - 30%	PASS
PCB126	NA	EPA 8270C	72	87	19	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
PCB128+167	NA	EPA 8270C	94	83	12	0 - 30%	PASS
PCB138	NA	EPA 8270C	96	90	6	0 - 30%	PASS
PCB141	NA	EPA 8270C	96	105	9	0 - 30%	PASS
PCB149	NA	EPA 8270C	104	103	1	0 - 30%	PASS
PCB151	NA	EPA 8270C	101	97	4	0 - 30%	PASS
PCB153	NA	EPA 8270C	96	100	4	0 - 30%	PASS
PCB156	NA	EPA 8270C	67	77	14	0 - 30%	PASS
PCB157	NA	EPA 8270C	76	94	21	0 - 30%	PASS
PCB158	NA	EPA 8270C	77	90	16	0 - 30%	PASS
PCB168+132	NA	EPA 8270C	97	95	2	0 - 30%	PASS
PCB169	NA	EPA 8270C	87	82	6	0 - 30%	PASS
PCB170	NA	EPA 8270C	95	105	10	0 - 30%	PASS
PCB177	NA	EPA 8270C	104	107	3	0 - 30%	PASS
PCB180	NA	EPA 8270C	108	107	1	0 - 30%	PASS
PCB183	NA	EPA 8270C	107	102	5	0 - 30%	PASS
PCB187	NA	EPA 8270C	103	100	3	0 - 30%	PASS
PCB189	NA	EPA 8270C	113	97	15	0 - 30%	PASS
PCB194	NA	EPA 8270C	74	103	33	0 - 30%	FAIL
PCB200	NA	EPA 8270C	99	94	5	0 - 30%	PASS
PCB201	NA	EPA 8270C	104	100	4	0 - 30%	PASS
PCB206	NA	EPA 8270C	86	113	27	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	95	98	3	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	120	121	1	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	123	127	3	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	125	126	1	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	73	73	0	0 - 30%	PASS
1-Methylnaphthalene	NA	EPA 8270C	4.9	3.7	28	0 - 30%	PASS
1-Methylphenanthrene	NA	EPA 8270C	23.4	18.9	21	0 - 30%	PASS
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	4.4	3.5	23	0 - 30%	PASS
2,6-Dimethylnaphthalene	NA	EPA 8270C	8.7	8.2	6	0 - 30%	PASS
2-Methylnaphthalene	NA	EPA 8270C	8.4	7	18	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	11.1	4.5	85	0 - 30%	FAIL
Acenaphthylene	NA	EPA 8270C	1.5	1.4	7	0 - 30%	PASS
Anthracene	NA	EPA 8270C	25.5	17.5	37	0 - 30%	FAIL
Benz[a]anthracene	NA	EPA 8270C	151	100	41	0 - 30%	FAIL
Benzo[a]pyrene	NA	EPA 8270C	165	114	37	0 - 30%	FAIL
Benzo[b]fluoranthene	NA	EPA 8270C	156	117	29	0 - 30%	PASS
Benzo[e]pyrene	NA	EPA 8270C	134	107	22	0 - 30%	PASS
Benzo[g,h,i]perylene	NA	EPA 8270C	158	129	20	0 - 30%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	162	121	29	0 - 30%	PASS
Biphenyl	NA	EPA 8270C	3.3	2.4	32	0 - 30%	FAIL
Chrysene	NA	EPA 8270C	220	162	30	0 - 30%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	31.8	23.4	30	0 - 30%	FAIL
Fluoranthene	NA	EPA 8270C	421	284	39	0 - 30%	FAIL
Fluorene	NA	EPA 8270C	13.4	9.7	32	0 - 30%	FAIL
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	145	109	28	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Received:**	12-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Processed:**	21-Jul-05	
				Date Analyzed:	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 % Recovery	R2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	7.9	6.2	24	0 - 30%	PASS
Perylene	NA	EPA 8270C	61.1	49.1	22	0 - 30%	PASS
Phenanthrene	NA	EPA 8270C	193	109	56	0 - 30%	FAIL
Pyrene	NA	EPA 8270C	376	264	35	0 - 30%	FAIL
Total Detectable PAHs	NA	EPA 8270C	2486.4	1771.5	34	0 - 30%	FAIL

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
				Date Received:	12-Jul-05	
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Processed:**	21-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Analyzed:**	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
(d10-Acenaphthene)	NA	EPA 8270C	99	93	6	0 - 30%	PASS
(d10-Phenanthrene)	NA	EPA 8270C	116	114	2	0 - 30%	PASS
(d12-Chrysene)	NA	EPA 8270C	115	119	3	0 - 30%	PASS
(d12-Perylene)	NA	EPA 8270C	108	119	10	0 - 30%	PASS
(d8-Naphthalene)	NA	EPA 8270C	82	72	13	0 - 30%	PASS
1-Methylnaphthalene	NA	EPA 8270C	97	92	5	0 - 30%	PASS
1-Methylphenanthrene	NA	EPA 8270C	101	117	15	0 - 30%	PASS
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	107	100	7	0 - 30%	PASS
2,6-Dimethylnaphthalene	NA	EPA 8270C	94	90	4	0 - 30%	PASS
2-Methylnaphthalene	NA	EPA 8270C	91	86	6	0 - 30%	PASS
Acenaphthene	NA	EPA 8270C	100	86	15	0 - 30%	PASS
Acenaphthylene	NA	EPA 8270C	101	103	2	0 - 30%	PASS
Anthracene	NA	EPA 8270C	108	112	4	0 - 30%	PASS
Benz[a]anthracene	NA	EPA 8270C	-105	-82	-25	0 - 30%	PASS
Benzo[a]pyrene	NA	EPA 8270C	-142	-89	-46	0 - 30%	PASS
Benzo[b]fluoranthene	NA	EPA 8270C	-19	21	4000	0 - 30%	FAIL
Benzo[e]pyrene	NA	EPA 8270C	45	80	56	0 - 30%	FAIL
Benzo[g,h,i]perylene	NA	EPA 8270C	-82	-25	-107	0 - 30%	PASS
Benzo[k]fluoranthene	NA	EPA 8270C	-108	-72	-40	0 - 30%	PASS
Biphenyl	NA	EPA 8270C	100	92	8	0 - 30%	PASS
Chrysene	NA	EPA 8270C	-131	-57	-79	0 - 30%	PASS
Dibenz[a,h]anthracene	NA	EPA 8270C	86	89	3	0 - 30%	PASS
Fluoranthene	NA	EPA 8270C	-291	-288	-1	0 - 30%	PASS
Fluorene	NA	EPA 8270C	100	104	4	0 - 30%	PASS
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	-12	-7	-53	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26319***	**Sample Description:**	7-12-FS-1 LARE	**Date Sampled:**	12-Jul-05	13:00
Batch ID:	2563-14050	**Matrix:**	Sediment	**Date Received:**	12-Jul-05	
Instrument:	GC/MS #2 Shimadzu QP2010	**Analyst:**	S. Botero	**Date Processed:**	21-Jul-05	
				Date Analyzed:	26-Jul-05	

CONSTITUENT	FRACTION	METHOD	MS1 % Recovery	MS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Naphthalene	NA	EPA 8270C	75	70	7	0 - 30%	PASS
Perylene	NA	EPA 8270C	26	65	86	0 - 30%	FAIL
Phenanthrene	NA	EPA 8270C	-79	-87	-10	0 - 30%	PASS
Pyrene	NA	EPA 8270C	-218	-184	-17	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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General Chemistry

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563f***

CRG ID#:	***26324***	**Sample Description:**	7-12-Solids2 LARE	**Date Sampled:**	12-Jul-05	13:00
Batch ID:	2563-12101	**Matrix:**	Seawater	**Date Received:**	12-Jul-05	
Instrument:		**Analyst:**	C. Raubach	**Date Processed:**	18-Jul-05	
				Date Analyzed:	18-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 Percent	R2 Percent	% RPD	ACCEPTANCE RANGE	COMMENT
Percent Solids	Total	EPA 160.3	9.9	12.4	22	0 - 30%	PASS
Total Solids	Total	SM 2540 D	172000	171000	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

SUB-CONTRACT LAB REPORT

Project ID: P2563f
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
7-11-FS-1	0.00	0.00	0.00	0.03	0.42	1.06	2.87	7.77	16.64	25.32	22.48	11.66	4.67	2.02	1.22	0.98	0.76	0.56	0.38	0.35	0.32	0.31	0.20	0.00	0.00	0.00	0.00
7-11-CS-1	0.00	0.02	0.97	4.76	12.62	17.10	13.83	11.79	12.55	10.71	6.44	3.05	1.62	1.08	0.88	0.82	0.68	0.51	0.34	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00
7-11-FSW-1	0.00	0.00	0.00	0.29	2.33	6.05	9.90	13.53	18.45	20.74	15.60	7.28	2.70	1.09	0.64	0.52	0.43	0.34	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7-11-CSW-1	0.00	0.00	0.72	4.44	13.17	18.87	14.92	11.85	11.73	9.43	5.60	2.78	1.58	1.09	0.88	0.81	0.69	0.55	0.40	0.35	0.15	0.00	0.00	0.00	0.00	0.00	0.00
7-12-FS-1	0.00	0.00	0.00	0.03	0.45	1.16	3.05	7.66	15.61	23.86	22.50	12.66	5.29	2.25	1.29	1.00	0.79	0.59	0.41	0.38	0.35	0.34	0.30	0.02	0.00	0.00	0.00
7-12-CS-1	0.00	0.00	0.00	0.63	3.67	11.72	16.94	16.42	15.58	12.38	7.84	4.24	2.49	1.70	1.36	1.25	1.07	0.86	0.61	0.52	0.37	0.23	0.14	0.01	0.00	0.00	0.00
7-12-FSW-1	0.00	0.00	0.00	0.03	0.49	1.32	3.56	8.80	16.92	23.52	20.35	11.16	4.97	2.34	1.44	1.16	0.94	0.74	0.54	0.50	0.41	0.35	0.33	0.14	0.00	0.00	0.00
7-12-CSW-1	0.68	4.63	13.56	20.33	20.34	15.58	9.51	6.24	4.74	2.73	1.18	0.45	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Project ID: P2563f
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
7-11-FS-1	21-Jul-05	0.00	76.59	22.24	1.17	23.41	15.25	35.50	66.12	115.37	172.16	6.04	4.82	3.92	3.11	2.53	77.14	66.12	71.42	3.69	3.92	3.80	0.85	-0.26	-3.06
7-11-CS-1	21-Jul-05	0.00	90.78	8.98	0.23	9.22	24.72	62.87	174.93	377.48	532.96	5.34	3.99	2.51	1.40	0.90	213.98	174.93	294.17	2.22	2.51	1.76	1.30	-0.22	-2.71
7-11-FSW-1	21-Jul-05	0.00	86.90	13.10	0.00	13.10	28.17	47.15	89.37	193.61	308.64	5.15	4.41	3.48	2.36	1.69	117.34	89.37	76.12	3.09	3.48	3.71	1.02	-0.39	-2.69
7-11-CSW-1	21-Jul-05	0.00	90.73	8.77	0.50	9.27	22.57	65.34	186.92	375.75	519.36	5.47	3.93	2.41	1.40	0.93	217.33	186.92	292.70	2.19	2.41	1.76	1.27	-0.17	-2.79
7-12-FS-1	21-Jul-05	0.00	74.32	24.29	1.39	25.68	13.78	33.95	64.17	115.26	174.47	6.18	4.88	3.96	3.11	2.51	76.20	64.17	70.70	3.71	3.96	3.82	0.88	-0.28	-3.08
7-12-CS-1	21-Jul-05	0.00	85.16	13.57	1.27	14.84	11.17	46.64	124.59	253.74	352.73	6.49	4.42	3.00	1.97	1.49	146.77	124.59	179.30	2.76	3.00	2.47	1.23	-0.19	-3.04
7-12-FSW-1	21-Jul-05	0.00	74.99	23.28	1.73	25.01	10.77	33.45	66.92	120.47	183.86	6.54	4.90	3.90	3.05	2.44	79.04	66.92	72.47	3.66	3.90	3.78	0.93	-0.26	-3.21
7-12-CSW-1	21-Jul-05	0.00	99.51	0.49	0.00	0.49	92.37	181.00	416.98	761.28	1024.58	3.43	2.46	1.25	0.38	-0.05	470.76	416.98	502.58	1.08	1.25	0.98	1.04	-0.17	-2.68

*Percentage of the sample retained on a 2 mm sieve.

CHAIN-OF-CUSTODY

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
(310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

LAB PROJECT ID #

Client Name Address	Steve Cappellino Anchor Environmental
Sampled By	S. Cappellino
Project Manager	Same
Phone	949-833-7150
FAX	949-833-7151
Email	scappellino@anchorenv.com
Project Name/Number	LARE
P.O. Number	Matrix sc Date sc.

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	Trace Metals	PAH's	Pest/PCBs	Grain Size (BA)	TOC	% Solids					
1	7-11-FS-1	SED	13:00	7/11/05	1	glass	X	X	X	X	X						
2	7-11-CS-1			7/11/05	1												
3	7-11-FSW-1			7/11/05	1												
4	7-11-CSW-1			7/11/05	1												
5	7-12-FS-1			7/12/05	1												
6	7-12-CS-1			7/12/05	1												
7	7-12-FSW-1			7/12/05	1												
8	7-12-CSW-1			7/12/05	1												
9	7-12-Solids	SW	14:00	7/12/05	1	HDPE						X					
10	7-12-Solids 2	SW	14:10	7/12/05	1	HDPE						X					

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:
Normal TAT on All Samples

P2563f

RELINQUISHED BY

Signature:	
Print:	Steve Cappellino
Company:	Anchor Environmental
DATE:	7/12/05 TIME: 15:00

RECEIVED BY

Signature:	
Print:	Adam Idell
Company:	CRG
DATE:	7/12/05 TIME: 16:15

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

CRG
Marine Laboratories, Inc.

SAMPLE RECEIPT FORM

CRG Project ID
P2503f

CLIENT NAME: Anchor

DATE RECEIVED: 7/12/05

COURIER INFORMATION		
☐ CRG	☐ FEDEX	TRACKING NUMBER
☑ OTHER*	☐ UPS	

TEMPERATURE	
3 °C	☐ BLUE ICE
	☑ WET ICE
	☐ NO ICE

Chain-of-Custody
☑ INCLUDED
☑ SIGNED
☐ NOT INCLUDED

SAMPLE MATRIX
☑ LIQUID
☑ SOLID
☐ OTHER*

CONDITION OF SAMPLES UPON ARRIVAL

	YES	NO*	NA
All sample containers intact and good condition	☑	☐	☐
All samples listed on COC are present	☑	☐	☐
Sample ID on containers consistent with COC	☑	☐	☐
Correct containers used for analyses requested	☑	☐	☐
All samples received within method holding time	☑	☐	☐

*NOTES

COMPLETED BY: [signature]

2020 Del Amo Boulevard Suite 200, Torrance, CA 90501 · (310) 533-5190 · FAX (310) 533-5003

Raw Data Packet 9

Trace Metals, Chlorinated Pesticides, Arcolor PCB, PCB Congeners, Polynuclear Aromatic Hydrocarbon data for Sample IDs 7-13-CS-1 and 7-13-FS-1, collected on July 13, 2005

CRG
Marine Laboratories, Inc.
2020 Del Amo Blvd. Suite 200, Torrance, CA 90501 • (310) 533-5190 • FAX (310) 533-5003 • mmercier@crglabs.com

August 1, 2005

Anchor Environmental
One Park Plaza
Suite 600
Irvine, CA 92614

Re: CRG Project ID: P2563g
Anchor Project: LARE Sediment Separation

ATTN: Steve Cappellino

CRG Laboratories is pleased to provide you with the enclosed analytical data report for your LARE Sediment Separation project. According to the chain-of-custody, 2 samples were received intact at CRG on July 13, 2005. Per your instructions, the samples were processed and analyzed for:

- Trace Metals By ICPMS Using EPA Method 6020
- Chlorinated Pesticides By GCMS Using EPA Method 8270
- Polychlorinated Biphenyls and Aroclor (PCBs) By GCMS Using EPA Method 8270
- Polynuclear Aromatic Hydrocarbons (PAHs) By GCMS Using EPA Method 8270

Grain Size analysis was subcontracted to another laboratory, results are included.

Please don't hesitate to call if you have any questions and thank you very much for using our laboratory for your analytical needs.

Regards,
Misty B. Mercier
Project Manager

Reviewed and Approved _____

DATA REPORT

TRACE METAL RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	6870	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.1	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	65.8	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.15	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.31	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	13.3	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.17	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	12.9	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	14800	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	16.3	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	186	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.04276	ug/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.68	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	11.7	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	46.2	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.08	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.18	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1100	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	35.7	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	61.4	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R2		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	6630	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	1.03	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	72.4	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.15	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.29	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	13.3	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	4.33	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	21.5	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	14700	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	15.6	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	179	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.03805	ug/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	0.83	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	9.61	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	45	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.09	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	1.39	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	1110	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	37.4	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	62.3	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Processed:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Analyzed:**	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	12000	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	2.2	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	142	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	0.24	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	0.53	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	25.3	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	8.15	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	25.9	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	23400	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	28.4	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	349	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	0.09663	ug/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	1.42	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	18.1	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	80.9	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	0.17	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	2.33	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	2230	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	54.5	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	116	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CHLORINATED PESTICIDE RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	91	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	88	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	91	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	91	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	E5	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	5	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	90	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	95	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	91	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	94	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	6.4	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	E2.2	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	E2.7	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	6.4	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

AROCLOR-BASED PCB RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	E 10.4	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CONGENER-BASED PCB RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563g*

CRG ID#:	*26378*	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563g*

CRG ID#: *26379* **Sample Description:** 7-13 FS--1 **Date Sampled:** 13-Jul-05 13:00
Replicate #: R1 **Date Received:** 13-Jul-05
Batch ID: 2563-14048 **Matrix:** Sediment **Date Processed:** 18-Jul-05
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman **Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	E 1.3	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	E 1.3	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	E 2.4	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	E2	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	7	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

POLYNUCLEAR AROMATIC HYDROCARBON RESULTS

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Polynuclear Aromatic Hydrocarbons

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563g*

CRG ID#:	*26378*	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	96	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	98	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	99	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	101	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	95	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	6.5	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E2.4	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	E4.4	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	E4.2	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E2.1	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	5.2	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	22.5	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	30.5	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	30	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	29.1	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	35.5	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	32.5	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E1.4	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	45	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	5.5	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	73.3	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	E4.3	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	23.6	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	E3.7	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	16.1	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	33.1	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	68.6	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	481.6	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	86	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	93	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	99	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	97	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	76	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	E3.1	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	11.9	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	E4.2	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	7.2	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	6.2	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	E4.7	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	9.6	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	48.4	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	68	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	63.6	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	59.8	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	69.9	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	66.5	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	E2.7	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	85.4	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	11.5	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	140	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	7.1	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	59.3	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26379***	**Sample Description:**	7-13 FS--1	**Date Sampled:**	13-Jul-05	13:00
Replicate #:	R1		LARE	**Date Received:**	13-Jul-05	
Batch ID:	2563-14048	**Matrix:**	Sediment	**Date Processed:**	18-Jul-05	
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman	**Date Analyzed:**	20-Jul-05	

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	5.6	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	36.3	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	64.3	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	138	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	973.3	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

QUALITY CONTROL REPORT

PROCEDURAL BLANK RESULTS

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#: *26377*
Replicate #: B1
Batch ID: 2563-12036
Instrument: ICPMS #1 HP 4500

Sample Description: QAQC LARE Procedural Blank
Matrix: DI Water
Analyst: P. Hershelman

Date Sampled:
Date Received:
Date Processed: 13-Jul-05
Date Analyzed: 19-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aluminum (Al)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Antimony (Sb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Arsenic (As)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Barium (Ba)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Beryllium (Be)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cadmium (Cd)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Chromium (Cr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Cobalt (Co)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Copper (Cu)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Iron (Fe)	NA	EPA 6020	ND	µg/dry g	1	5	1	NA
Lead (Pb)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Manganese (Mn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Mercury (Hg)	NA	EPA 245.7	ND	ug/dry g	0.00001	0.00002	1	NA
Molybdenum (Mo)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Nickel (Ni)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Selenium (Se)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Silver (Ag)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Strontium (Sr)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Thallium (Tl)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Tin (Sn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Titanium (Ti)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Vanadium (V)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA
Zinc (Zn)	NA	EPA 6020	ND	µg/dry g	0.025	0.05	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26377***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(PCB030)	NA	EPA 8270C	87	% Recovery			1	46 - 119%
(PCB112)	NA	EPA 8270C	96	% Recovery			1	52 - 123%
(PCB198)	NA	EPA 8270C	100	% Recovery			1	59 - 123%
(TCMX)	NA	EPA 8270C	86	% Recovery			1	40 - 110%
2,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDD	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDE	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
4,4'-DDT	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Aldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-beta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-delta	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
BHC-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-alpha	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chlordane-gamma	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dieldrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan Sulfate	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-I	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endosulfan-II	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Aldehyde	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Endrin Ketone	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Heptachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Chlorinated Pesticides

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26377***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Heptachlor Epoxide	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Methoxychlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Mirex	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Oxychlordane	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable DDTs	NA	EPA 8270C	0	ng/dry g			1	NA
Toxaphene	NA	EPA 8270C	ND	ng/dry g	10	50	1	NA
trans-Nonachlor	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Aroclor PCBs

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26377***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Aroclor 1016	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1221	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1232	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1242	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1248	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1254	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA
Aroclor 1260	NA	EPA 8270C	ND	ng/dry g	10	20	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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PCB Congeners

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563g*

CRG ID#: *26377* **Sample Description:** QAQC Procedural Blank
Replicate #: B1 LARE
Batch ID: 2563-14048 **Matrix:** DI Water
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman

Date Sampled:
Date Received:
Date Processed: 18-Jul-05
Date Analyzed: 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB018	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB028	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB031	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB033	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB037	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB044	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB049	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB052	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB066	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB070	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB074	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB077	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB081	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB087	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB095	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB097	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB099	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB101	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB105	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB110	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB114	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB118	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB119	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB123	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB126	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

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PCB Congeners

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#: *26377* **Sample Description:** QAQC Procedural Blank
Replicate #: B1 LARE
Batch ID: 2563-14048 **Matrix:** DI Water
Instrument: GC/MS #3 Agilent 6890/5973 **Analyst:** D. Gonsman

Date Sampled:
Date Received:
Date Processed: 18-Jul-05
Date Analyzed: 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
PCB128+167	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB138	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB141	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB149	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB151	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB153	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB156	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB157	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB158	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB168+132	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB169	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB170	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB177	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB180	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB183	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB187	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB189	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB194	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB200	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB201	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
PCB206	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PCBs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	*26377*	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
(d10-Acenaphthene)	NA	EPA 8270C	88	% Recovery			1	52 - 125%
(d10-Phenanthrene)	NA	EPA 8270C	95	% Recovery			1	57 - 128%
(d12-Chrysene)	NA	EPA 8270C	103	% Recovery			1	61 - 126%
(d12-Perylene)	NA	EPA 8270C	108	% Recovery			1	53 - 122%
(d8-Naphthalene)	NA	EPA 8270C	72	% Recovery			1	47 - 110%
1-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
1-Methylphenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,3,5-Trimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2,6-Dimethylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
2-Methylnaphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Acenaphthylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benz[a]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[a]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[b]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[e]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[g,h,i]perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Benzo[k]fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Biphenyl	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Chrysene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Dibenz[a,h]anthracene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluoranthene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Fluorene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Indeno[1,2,3-c,d]pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Polynuclear Aromatic Hydrocarbons

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26377***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	B1				**Date Received:**
Batch ID:	2563-14048	**Matrix:**	DI Water		**Date Processed:** 18-Jul-05
Instrument:	GC/MS #3 Agilent 6890/5973	**Analyst:**	D. Gonsman		**Date Analyzed:** 20-Jul-05

CONSTITUENT	FRACTION	METHOD	RESULT	UNITS	MDL	RL	DILUTION FACTOR	ACCEPTANCE RANGE
Naphthalene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Perylene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Phenanthrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Pyrene	NA	EPA 8270C	ND	ng/dry g	1	5	1	NA
Total Detectable PAHs	NA	EPA 8270C	0	ng/dry g			1	NA

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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ACCURACY DATA

CRG Marine Laboratories, Inc.
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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26377***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	BS1				**Date Received:**
Batch ID:	2563-12036	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	93	2 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	103	2 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	108	2 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	101	2 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	96	2 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	104	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	105	2 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	109	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	102	1.5 µgL	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	108	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	102	2 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	107	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26377***	**Sample Description:**	QAQC LARE	Procedural Blank	**Date Sampled:**
Replicate #:	BS2				**Date Received:**
Batch ID:	2563-12036	**Matrix:**	DI Water		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	94	2 µg	75 - 125%	PASS
Antimony (Sb)	NA	EPA 6020	105	2 µg	40 - 160%	PASS
Arsenic (As)	NA	EPA 6020	106	2 µg	65 - 135%	PASS
Barium (Ba)	NA	EPA 6020	101	2 µg	75 - 125%	PASS
Beryllium (Be)	NA	EPA 6020	93	2 µg	70 - 130%	PASS
Cadmium (Cd)	NA	EPA 6020	103	2 µg	60 - 140%	PASS
Chromium (Cr)	NA	EPA 6020	105	2 µg	75 - 125%	PASS
Cobalt (Co)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	104	2 µg	75 - 125%	PASS
Iron (Fe)	NA	EPA 6020	109	2 µg	75 - 125%	PASS
Lead (Pb)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Manganese (Mn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Mercury (Hg)	NA	EPA 245.7	103	1.5 µgL	75 - 125%	PASS
Molybdenum (Mo)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Nickel (Ni)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Selenium (Se)	NA	EPA 6020	109	2 µg	40 - 160%	PASS
Silver (Ag)	NA	EPA 6020	107	2 µg	75 - 125%	PASS
Strontium (Sr)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Thallium (Tl)	NA	EPA 6020	102	2 µg	75 - 125%	PASS
Tin (Sn)	NA	EPA 6020	103	2 µg	60 - 140%	PASS
Titanium (Ti)	NA	EPA 6020	106	2 µg	75 - 125%	PASS
Vanadium (V)	NA	EPA 6020	103	2 µg	75 - 125%	PASS
Zinc (Zn)	NA	EPA 6020	106	2 µg	75 - 125%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

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Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26678***	**Sample Description:**	QAQC LARE	CRM (ERA540) Lot# D037540	**Date Sampled:**
Replicate #:	CRM1				**Date Received:**
Batch ID:	2563-12036	**Matrix:**	Sediment		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	125	7500 µg/dry g	38 - 162%	PASS
Antimony (Sb)	NA	EPA 6020	115	178 µg/dry g	49 - 151%	PASS
Arsenic (As)	NA	EPA 6020	120	136 µg/dry g	74 - 126%	PASS
Barium (Ba)	NA	EPA 6020	125	145 µg/dry g	79 - 121%	PASS
Beryllium (Be)	NA	EPA 6020	78	67.8 µg/dry g	83 - 117%	PASS
Cadmium (Cd)	NA	EPA 6020	118	241 µg/dry g	80 - 120%	PASS
Chromium (Cr)	NA	EPA 6020	106	102 µg/dry g	77 - 123%	PASS
Cobalt (Co)	NA	EPA 6020	76	57.2 µg/dry g	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	103	64.5 µg/dry g	81 - 119%	PASS
Iron (Fe)	NA	EPA 6020	148	13700 µg/dry g	46 - 154%	PASS
Lead (Pb)	NA	EPA 6020	117	73.5 µg/dry g	81 - 119%	PASS
Manganese (Mn)	NA	EPA 6020	117	261 µg/dry g	73 - 127%	PASS
Mercury (Hg)	NA	EPA 245.7	114	8.31 µg/dry g	68 - 132%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	34.5 µg/dry g	80 - 120%	PASS
Nickel (Ni)	NA	EPA 6020	100	82.8 µg/dry g	81 - 119%	PASS
Selenium (Se)	NA	EPA 6020	114	87.7 µg/dry g	67 - 133%	PASS
Silver (Ag)	NA	EPA 6020	72	127 µg/dry g	52 - 148%	PASS
Strontium (Sr)	NA	EPA 6020	117	53.4 µg/dry g	73 - 127%	PASS
Thallium (Tl)	NA	EPA 6020	120	113 µg/dry g	73 - 127%	PASS
Tin (Sn)	NA	EPA 6020	67	110 µg/dry g	58 - 142%	PASS
Titanium (Ti)	NA	EPA 6020	170	390 µg/dry g	7 - 194%	PASS
Vanadium (V)	NA	EPA 6020	118	113 µg/dry g	69 - 131%	PASS
Zinc (Zn)	NA	EPA 6020	112	137 µg/dry g	80 - 120%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

26649 CRM1

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26678***	**Sample Description:**	QAQC	CRM (ERA540) Lot# D037540	**Date Sampled:**
Replicate #:	CRM2		LARE		**Date Received:**
Batch ID:	2563-12036	**Matrix:**	Sediment		**Date Processed:** 13-Jul-05
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman		**Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	% RECOVERY	TRUE VALUE	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	118	7500 µg/dry g	38 - 162%	PASS
Antimony (Sb)	NA	EPA 6020	111	178 µg/dry g	49 - 151%	PASS
Arsenic (As)	NA	EPA 6020	107	136 µg/dry g	74 - 126%	PASS
Barium (Ba)	NA	EPA 6020	120	145 µg/dry g	79 - 121%	PASS
Beryllium (Be)	NA	EPA 6020	71	67.8 µg/dry g	83 - 117%	PASS
Cadmium (Cd)	NA	EPA 6020	109	241 µg/dry g	80 - 120%	PASS
Chromium (Cr)	NA	EPA 6020	96	102 µg/dry g	77 - 123%	PASS
Cobalt (Co)	NA	EPA 6020	75	57.2 µg/dry g	75 - 125%	PASS
Copper (Cu)	NA	EPA 6020	95	64.5 µg/dry g	81 - 119%	PASS
Iron (Fe)	NA	EPA 6020	143	13700 µg/dry g	46 - 154%	PASS
Lead (Pb)	NA	EPA 6020	111	73.5 µg/dry g	81 - 119%	PASS
Manganese (Mn)	NA	EPA 6020	110	261 µg/dry g	73 - 127%	PASS
Mercury (Hg)	NA	EPA 245.7	118	8.31 µg/dry g	68 - 132%	PASS
Molybdenum (Mo)	NA	EPA 6020	93	34.5 µg/dry g	80 - 120%	PASS
Nickel (Ni)	NA	EPA 6020	89	82.8 µg/dry g	81 - 119%	PASS
Selenium (Se)	NA	EPA 6020	105	87.7 µg/dry g	67 - 133%	PASS
Silver (Ag)	NA	EPA 6020	103	127 µg/dry g	52 - 148%	PASS
Strontium (Sr)	NA	EPA 6020	110	53.4 µg/dry g	73 - 127%	PASS
Thallium (Tl)	NA	EPA 6020	114	113 µg/dry g	73 - 127%	PASS
Tin (Sn)	NA	EPA 6020	62	110 µg/dry g	58 - 142%	PASS
Titanium (Ti)	NA	EPA 6020	169	390 µg/dry g	7 - 194%	PASS
Vanadium (V)	NA	EPA 6020	108	113 µg/dry g	69 - 131%	PASS
Zinc (Zn)	NA	EPA 6020	104	137 µg/dry g	80 - 120%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

26649 CRM2

PRECISION DATA

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#:	***26378***	**Sample Description:**	7-13-CS-1 LARE	**Date Sampled:**	13-Jul-05	13:00
Batch ID:	2563-12036	**Matrix:**	Sediment	**Date Received:**	13-Jul-05	
Instrument:	ICPMS #1 HP 4500	**Analyst:**	P. Hershelman	**Date Processed:**	13-Jul-05	
				Date Analyzed:	19-Jul-05	

CONSTITUENT	FRACTION	METHOD	R1 µg/dry g	R2 µg/dry g	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	6870	6630	4	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	1.1	1.03	7	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	65.8	72.4	10	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	0.15	0.15	0	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	0.31	0.29	7	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	13.3	13.3	0	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	4.17	4.33	4	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	12.9	21.5	50	0 - 30%	FAIL
Iron (Fe)	NA	EPA 6020	14800	14700	1	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	16.3	15.6	4	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	186	179	4	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	0.04276	0.03805	12	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	0.68	0.83	20	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	11.7	9.61	20	0 - 30%	PASS
Strontium (Sr)	NA	EPA 6020	46.2	45	3	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	0.08	0.09	12	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	1.18	1.39	16	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	1100	1110	1	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	35.7	37.4	5	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	61.4	62.3	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: *Anchor Environmental, L.L.C.* **CRG Project ID:** *2563g*

CRG ID#: *26377* **Sample Description:** QAQC LARE Procedural Blank **Date Sampled:**
Date Received:
Batch ID: 2563-12036 **Matrix:** DI Water **Date Processed:** 13-Jul-05
Instrument: ICPMS #1 HP 4500 **Analyst:** P. Hershelman **Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	BS1 % Recovery	BS2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	93	94	1	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	103	105	2	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	108	106	2	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	101	101	0	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	96	93	3	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	104	103	1	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	105	105	0	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	104	103	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	103	104	1	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	109	109	0	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	103	102	1	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	104	106	2	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	102	103	1	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	103	102	1	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	108	109	1	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	104	107	3	0 - 30%	PASS
Strontium (Sr)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	102	102	0	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	102	103	1	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	106	106	0	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	103	103	0	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	107	106	1	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206 (310) 533-5190 FAX (310) 533-5003 crglabs@sbcglobal.net

Trace Metals

Client: ***Anchor Environmental, L.L.C.*** **CRG Project ID:** ***2563g***

CRG ID#: ***26678*** **Sample Description:** QAQC LARE CRM (ERA540) Lot# D037540 **Date Sampled:**
Date Received:
Batch ID: 2563-12036 **Matrix:** Sediment **Date Processed:** 13-Jul-05
Instrument: ICPMS #1 HP 4500 **Analyst:** P. Hershelman **Date Analyzed:** 19-Jul-05

CONSTITUENT	FRACTION	METHOD	CRM1 % Recovery	CRM2 % Recovery	% RPD	ACCEPTANCE RANGE	COMMENT
Aluminum (Al)	NA	EPA 6020	125	118	6	0 - 30%	PASS
Antimony (Sb)	NA	EPA 6020	115	111	4	0 - 30%	PASS
Arsenic (As)	NA	EPA 6020	120	107	11	0 - 30%	PASS
Barium (Ba)	NA	EPA 6020	125	120	4	0 - 30%	PASS
Beryllium (Be)	NA	EPA 6020	78	71	9	0 - 30%	PASS
Cadmium (Cd)	NA	EPA 6020	118	109	8	0 - 30%	PASS
Chromium (Cr)	NA	EPA 6020	106	96	10	0 - 30%	PASS
Cobalt (Co)	NA	EPA 6020	76	75	1	0 - 30%	PASS
Copper (Cu)	NA	EPA 6020	103	95	8	0 - 30%	PASS
Iron (Fe)	NA	EPA 6020	148	143	3	0 - 30%	PASS
Lead (Pb)	NA	EPA 6020	117	111	5	0 - 30%	PASS
Manganese (Mn)	NA	EPA 6020	117	110	6	0 - 30%	PASS
Mercury (Hg)	NA	EPA 245.7	114	118	3	0 - 30%	PASS
Molybdenum (Mo)	NA	EPA 6020	102	93	9	0 - 30%	PASS
Nickel (Ni)	NA	EPA 6020	100	89	12	0 - 30%	PASS
Selenium (Se)	NA	EPA 6020	114	105	8	0 - 30%	PASS
Silver (Ag)	NA	EPA 6020	72	103	35	0 - 30%	FAIL
Strontium (Sr)	NA	EPA 6020	117	110	6	0 - 30%	PASS
Thallium (Tl)	NA	EPA 6020	120	114	5	0 - 30%	PASS
Tin (Sn)	NA	EPA 6020	67	62	8	0 - 30%	PASS
Titanium (Ti)	NA	EPA 6020	170	169	1	0 - 30%	PASS
Vanadium (V)	NA	EPA 6020	118	108	9	0 - 30%	PASS
Zinc (Zn)	NA	EPA 6020	112	104	7	0 - 30%	PASS

MDL= Method Detection Limit (CFR 40 Part 136); RL= Minimum Level (SWRCB); E= Estimated Value below the RL and above the MDL; ND= Not Detected; NA= Not Applicable.

California ELAP Certificate # 2261
26649

SUB-CONTRACT LAB REPORT

Project ID: P2563g
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered: July 26, 2005

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
7-13-CS-1	0.00	0.00	0.00	0.10	2.27	10.31	17.19	15.73	14.32	12.01	8.60	5.27	3.27	2.21	1.70	1.54	1.35	1.12	0.83	0.72	0.51	0.37	0.34	0.25	0.00	0.00	0.00
7-13-FS-1	0.00	0.00	0.00	0.02	0.32	0.93	2.72	7.91	17.08	25.01	21.01	10.92	4.87	2.40	1.53	1.23	0.96	0.75	0.55	0.51	0.43	0.37	0.34	0.14	0.00	0.00	0.00

Project ID: P2563g
Client: CRG Laboratories
Analysis: Grain Size
Matrix: Sediment
Delivered:

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
7-13-CS-1	20-Jul-05	0.00	80.51	17.30	2.19	19.49	6.87	35.18	112.39	233.80	323.79	7.19	4.83	3.15	2.09	1.62	132.63	112.39	199.19	2.91	3.15	2.32	1.37	-0.17	-3.03
7-13-FS-1	20-Jul-05	0.00	74.99	23.21	1.79	25.01	10.24	33.26	66.06	115.04	169.20	6.61	4.91	3.92	3.11	2.56	75.53	66.06	72.34	3.72	3.92	3.79	0.90	-0.22	-3.26

*Percentage of the sample retained on a 2 mm sieve.

CHAIN-OF-CUSTODY

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
(310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

LAB PROJECT ID #

Client Name Address	ANCHOR ENVIRONMENTAL
Sampled By	FIELDS
Project Manager	STEVE CAPPELLINO
Phone	
FAX	
Email	
Project Name/Number	LARE
P.O. Number	

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	TRACE METALS	PAHs	PEST/PCBs	GRAIN SIZE (PSA)							
1	7-13-CS-1			SED	1	GLASS	X	X	X	X							
2	7-13 FS-1			SED	1	GLASS	X	X	X	X							
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Correct Containers:	Yes	No		
Sample Temperature:	Ambient	Cold	Warm	
Sample Preservative:	Yes	No		
Turnaround Time:	STD	Specify:		
Report Format:	pdf	EDD	hardcopy	

Comments:

P25163g

26378 - 26379

RELINQUISHED BY

Signature:	Jim Fields		
Print:	JIM FIELDS		
Company:	USACE		
DATE:	7/13/05	TIME:	15:03

RECEIVED BY

Signature:	STEVE KEISER		
Print:	STEVE KEISER		
Company:	CRG		
DATE:	7/13/05	TIME:	1303

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

Misty B. Mercier

From: Steve Cappellino [scappellino@anchorenv.com]
Sent: Wednesday, July 13, 2005 4:42 PM
To: mmercier@crglabs.com
Subject: RE: P2563d rush metals

standard - trace metals, pahs, pest/pcbs and grain size

P2563g

-----Original Message-----
From: Misty B. Mercier [mailto:mmercier@crglabs.com]
Sent: Wednesday, July 13, 2005 4:41 PM
To: Steve Cappellino
Subject: RE: P2563d rush metals

I forgot to ask, the TAT for the last to samples...standard or rush?

-misty

-----Original Message-----
From: Steve Cappellino [mailto:scappellino@anchorenv.com]
Sent: Wednesday, July 13, 2005 4:39 PM
To: mmercier@crglabs.com
Subject: RE: P2563d rush metals

OK - thanks. Jim dropped off the last two samples that we will have coming to you for this project (think he was there an hour ago). When the dust settles (maybe late tomorrow or Friday) can you have Mark send me a total estimate of the costs for what we actually had completed? I need to get it into the Corps so that they can modify my contract.

Thanks,
S

-----Original Message-----
From: Misty B. Mercier [mailto:mmercier@crglabs.com]
Sent: Wednesday, July 13, 2005 4:36 PM
To: Steve Cappellino
Subject: RE: P2563d rush metals

Hi Steve,

I checked with the metals & organics lab...we can do 1day TAT for the metals and 2day TAT for the organics.

thanks,
misty

-----Original Message-----
From: Steve Cappellino [mailto:scappellino@anchorenv.com]
Sent: Wednesday, July 13, 2005 8:42 AM
To: mmercier@crglabs.com
Subject: RE: P2563d rush metals

Just rush the metals and organics for the sludge. When will the organics from the rush

Raw Data Packet 10

Total Organic Carbon Data for Sample ID Rhine Decant collected on February 24, 2005

Calscience Environmental Laboratories, Inc.

March 07, 2005

Misty Mercier
CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Subject: **Calscience Work Order No.: 05-02-1543**
Client Reference: P2563

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/28/2005 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Jason Torres
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Date Received: 02/28/05
Work Order No: 05-02-1543

Project: P2563

Client Sample Number	Lab Sample Number	Date Collected	Matrix
Rhine Decant	**05-02-1543-1**	**02/24/05**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	6.4	0.5	1		mg/L	N/A	02/28/05	EPA 415.1
Carbon, Dissolved Organic	7.7	0.5	1	B	mg/L	N/A	02/28/05	EPA 415.1

Method Blank	**N/A**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	02/28/05	EPA 415.1
Carbon, Dissolved Organic	1.3	0.5	1		mg/L	N/A	02/28/05	EPA 415.1

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Date Received: 02/28/05
Work Order No: 05-02-1543

Project: P2563

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	EPA 415.1	Rhine Decant	02/28/05	N/A	101	102	70-130	1	0-25	
Carbon, Dissolved Organic	EPA 415.1	Rhine Decant	02/28/05	N/A	94	96	70-130	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

CRG Marine Laboratories, Inc.
2020 Del Amo Blvd, Ste 200
Torrance, CA 90501-1206

Date Received: N/A
Work Order No: 05-02-1543

Project: P2563

Matrix : Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Carbon, Total Organic	EPA 415.1	099-05-097-1,848	02/28/05	N/A	10	10	103	80-120	
Carbon, Dissolved Organic	EPA 415.1	099-05-115-334	02/28/05	N/A	10	11	93	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 05-02-1543

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

1543

CRG Marine Laboratories, Inc.

2020 Del Amo Blvd., Suite 200, Torrance, CA 90501-1206
PHONE (310) 533-5190 FAX (310) 533-5003

CHAIN-OF-CUSTODY RECORD

TO: CALSCIENCE

Client Name	CRG Marine Laboratories, Inc.
Address	2020 Del Amo Blvd. Suite 200 Torrance, CA 90501
Sampled By	
Project Manager	Misty Mercier
Phone	310 533 5190 x106
FAX	310 533 0211 (direct fax) / 310 533 5003 (main fax)
Email	mmercier@crglabs.com
Project Name/Number	P2563

REQUESTED ANALYSIS

	Client Sample ID	Sample Date	Sample Time	Sample Matrix*	Container Quantity	Container Type	TOC	DOC									
1	Rhine Decant	24-Feb-05	12:00 PM	Water	2	GLASS/HDPE	X	X									
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Correct Containers:	Yes	No	
Sample Temperature:	Ambient	Cold	Warm
Sample Preservative:	Yes	No	
Turnaround Time:	STD	Specify:	
Report Format:	pdf	EDD	hardcopy

Comments:

page 1 of 1
1 samples total

please email pdf report to mmercier@crglabs.com

RELINQUISHED BY

Signature:	Kathleen M. Burney		
Print:	K. M. BURNEY		
Company:	CRG Marine Laboratories, Inc.		
DATE:	2/28/05	**TIME:**	3:15

RECEIVED BY

Signature:	[illegible]		
Print:	VINCENT LAM		
Company:	CEL		
DATE:	2/28/05	**TIME:**	15:15

*MATRIX CODES: (SED = Sediment); (TISS = Tissue); (SW = Seawater, Saltwater); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater)

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 05 - 0 2 - 1 5 4 3

Cooler 0 of 0

SAMPLE RECEIPT FORM

CLIENT: CRG MARINE LAB. **DATE:** 2/28/05

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
_____ °C IR thermometer.
✓ Ambient temperature.

Initial: ✓

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ✓

Initial: ✓

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: ✓

COMMENTS:

Raw Data Packet 11

Grain size data for Sample IDs Bulk Rhine, Rhine Sand, and Rhine Cake, collected on March 7, 2005

Project ID: P2563
Client: CRG
Analysis: Grain Size
Matrix: Sediment
Delivered: March 7, 2005

AQUATIC BIOASSAY & CONSULTING LABORATORIES, INC.

		Summary (Percent)					Percentile (microns)					Percentile (phi)					Microns			phi			Dispersion or Sorting Index	Distribution (phi)	
Sample ID	Analysis Date	Gravel*	Sand	Silt	Clay	Silt-Clay	5%	16%	50%	84%	95%	5%	16%	50%	84%	95%	Mean	Median	Mode	Mean	Median	Mode		Skewness	Kurtosis
Bulk Rhine	4-Mar-05	0.00	14.54	63.66	21.80	85.46	0.66	2.04	8.10	42.11	89.37	10.58	8.95	6.95	4.57	3.48	20.68	8.10	6.62	5.60	6.95	7.25	2.19	-0.62	-2.62
Rhine Sand	4-Mar-05	0.00	96.42	3.58	0.00	3.58	52.88	99.72	189.79	328.51	473.45	4.24	3.32	2.39	1.60	1.07	215.26	189.79	206.16	2.21	2.39	2.27	0.86	-0.21	-2.84
Rhine Cake	4-Mar-05	0.00	2.73	70.53	26.75	97.27	0.58	1.66	5.92	18.75	36.03	10.77	9.25	7.41	5.74	4.79	10.23	5.92	6.52	6.62	7.41	7.27	1.75	-0.45	-2.70

*Percentage of the sample retained on a 2 mm sieve.

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AQUATIC BIOASSAY & CONSULTING LABORATORIES, INC.

	phi Size																										
	<-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	>12
	Microns																										
	>2000	1410	1000	710	500	354	250	177	125	88.4	62.5	44.2	31.3	22.1	15.6	11.1	7.8	5.5	3.9	2.8	1.95	1.38	0.98	0.69	0.49	0.35	<0.24
Sample ID	coarse sand	coarse sand	med sand	med sand	med sand	med sand	fine sand	very fine sand	very fine sand	very fine sand	very fine sand	very fine sand	course silt	course silt	course silt	silt	fine silt	very fine silt	very fine silt	clay	clay	clay	clay	clay	clay	clay	clay
Bulk Rhine	0.00	0.00	0.00	0.00	0.00	0.00	0.24	1.55	3.34	4.57	4.85	5.03	5.77	7.07	8.49	10.11	10.39	9.50	7.28	6.61	4.45	2.61	2.76	2.89	1.87	0.62	0.00
Rhine Sand	0.00	0.00	0.51	3.17	8.43	18.14	24.76	21.03	12.22	5.43	2.75	1.63	0.99	0.55	0.33	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rhine Cake	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	2.03	3.93	5.78	7.53	9.15	11.25	12.18	11.62	9.10	8.23	5.37	3.04	3.33	3.52	2.33	0.87	0.06