

## **Appendix G: Southern Los Cerritos Wetlands Restoration Project Sampling and Analysis Report**



October 2022  
Southern Los Cerritos Wetlands Restoration Project



---

# Sampling and Analysis Report

Prepared for Moffatt & Nichol

October 2022  
Southern Los Cerritos Wetlands Restoration Project

# Sampling and Analysis Report

**Prepared for**  
Moffatt & Nichol  
555 Anton Boulevard, Suite 400  
Costa Mesa, California 92626

**Prepared by**  
Anchor QEA, LLC  
9700 Research Drive  
Irvine, California 92618

# TABLE OF CONTENTS

<b>1</b>	<b>Introduction</b> .....	<b>1</b>
1.1	Project Description.....	1
1.2	Review of Previously Collected Data.....	2
1.3	Objectives.....	2
<b>2</b>	<b>Field Collection Program</b> .....	<b>4</b>
2.1	Soil Collection.....	4
2.2	Sample Processing.....	5
2.2.1	Chemical Samples.....	5
2.2.2	Geotechnical Samples.....	5
<b>3</b>	<b>Chemical Analyses Results</b> .....	<b>7</b>
3.1	Composite Samples.....	7
3.2	Sample Intervals from Stations LCW-03 and LCW-04.....	8
3.3	Z-Layer Samples.....	8
3.4	Quality Assurance/Quality Control.....	8
<b>4</b>	<b>Geotechnical Testing Results</b> .....	<b>10</b>
<b>5</b>	<b>References</b> .....	<b>11</b>

## TABLES

Table 1	Station Coordinates, Existing and Proposed Elevations, and Boring Depths for Each Sampling Location
Table 2	Compositing Scheme and Testing Strategy
Table 3	Geotechnical Testing Strategy
Table 4	Composite Soil Chemistry Results
Table 5	VOC Results
Table 6	Individual Core PCB Aroclor Results
Table 7	Z-Layer Chemistry Results

## FIGURES

Figure 1	Project Site and Vicinity Map
Figure 2	Site Map

Figure 3	Los Cerritos Wetlands Habitat Restoration Plan
Figure 4	Previously Completed Sample Locations
Figure 5	Proposed and Actual Sampling Locations Relative to Habitat Restoration Plan
Figure 6	Proposed and Actual Sampling Locations Relative to Existing Wetlands, Sumps, Former Landfill, and Other Areas of Contamination

## **APPENDICES**

Appendix A	Watermain Rehabilitation Project Boring Locations
Appendix B	Boring Logs
Appendix C	Sample Photographs
Appendix D	Chemistry Laboratory Reports
Appendix E	Data Validation Reports
Appendix F	Geotechnical Laboratory Report

## ABBREVIATIONS

ASTM	ASTM International
bgs	below ground surface
Complex	Los Cerritos Wetlands Complex
DTSC-SL	California Department of Toxic Substances Control modified screening level
ERL	effects range low
ERM	effects range median
Geosyntec	Geosyntec Consultants
HSA	hollow stem auger
LCWA	Los Cerritos Wetlands Authority
mg/kg	milligram per kilogram
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PEIR	Program Environmental Impact Report
SAP	Sampling and Analysis Plan
SPT	standard penetration testing
SVOC	semivolatile organic compound
TOC	total organic carbon
TPH	total petroleum hydrocarbon
VOC	volatile organic compound

# 1 Introduction

The Los Cerritos Wetlands Authority (LCWA) is proposing to restore tidal wetlands and other habitats within the South LCWA site (also known as the Hellman Ranch property), which is located in Seal Beach, California (Figure 1). The South LCWA site is part of the Los Cerritos Wetlands Complex (Complex) that comprises approximately 503 acres of publicly and privately owned open space that is mostly degraded tidal and non-tidal salt marsh and upland fill. The LCWA owns approximately 166 acres of the Complex, including the South LCWA site. The South LCWA site is approximately 105 acres and includes former sumps, landfills, and contaminated areas from prior oil operations (Figure 2). Restoration of the South LCWA site is one of the near-term activities identified in the Program Environmental Impact Report (PEIR; ESA 2020).

The refined restoration plan for the South LCWA site is detailed in *The Los Cerritos Wetlands Habitat Restoration Plan* (CRC 2021) and is presented in Figure 3. As part of this plan, soil will be regraded to create elevations suitable for wetland habitats, a new tidal channel will be excavated, and the existing road through the South LCWA site will be retained with a bridge or culvert constructed at the new channel. The existing road will also be raised to protect against flooding, and a berm or floodwall will be constructed along the northern perimeter of the site for additional flood protection. Excavated soil from the project is planned for on-site reuse or off-site disposal at a suitable location.

A geotechnical and environmental site assessment was conducted at the South LCWA site to help determine the design for flood management (e.g., berms and flood walls) and the stability of the grading site, to evaluate cut materials to determine their suitability for safe and effective reuse on site, and to evaluate the residual chemical concentrations at the expected new post-excavation soil surface (also known as the Z-layer). This Sampling and Analysis Report summarizes the soil sampling event and evaluates data results.

## 1.1 Project Description

The Complex, which borders Los Angeles and Orange counties, affords the opportunity to restore salt marsh, seasonal wetlands, and other freshwater wetlands. The Southern California Wetlands Recovery Project, a partnership of 17 state and federal agencies, has identified the acquisition and restoration of the Los Cerritos Wetlands as a high regional priority. The restored habitat will provide multiple benefits, including provision of critical habitat for listed species and other fish and wildlife, carbon sequestration, improved flood control, sea level rise resiliency, preservation of tribal cultural resources, and improved public access to open space.

The Complex adjoins the lower reach of the San Gabriel River where, prior to channelization, the mouth of the river migrated back and forth across the coastal plain. Historically, the Complex covered approximately 2,400 acres and stretched approximately 2 miles inland, varying from freshwater and brackish wetlands in its inland areas to salt marsh closer to the ocean. Channelization

of the San Gabriel River began in the 1930s and cut off tidal action to much of the wetland area. The size of the historical wetlands has been reduced by farming, placement of fill and excavation of channels and basins for oil fields and landfill burn dumps, and urban development. There is ongoing oil production throughout the area, and much of the remnant salt marsh is within a grid of dikes, berms, roadways, and levees. The Haynes Cooling Channel, which services an upstream power plant, also bifurcates sections of the Complex. Today, remnants of the historical wetlands occur in degraded patches divided into the following four areas: North, Central, Isthmus, and South.

The LCWA developed the PEIR for the Complex, which analyzed potential impacts of the proposed program (ESA 2020). The PEIR included restoration and public access designs to support environmental review and identified the South LCWA site as one of the near-term projects. The refined restoration plan for the South LCWA site was designed to be less impactful than those plans analyzed in the PEIR, and it includes more details on different salt marsh habitats (CRC 2021).

## 1.2 Review of Previously Collected Data

Several studies were conducted at the site from 1987 to 2006 (BCL Associates 1987; Converse 1996, 1997, 1998a, 1998b; Geomatrix Consultants 2001; Anchor 2004, 2006a, 2006b). In 2003, Anchor Environmental and Everest International Consultants conducted a review of previous site investigation reports conducted from 1987 to 2002 (Anchor and Everest 2003). In 2017, Geosyntec Consultants (Geosyntec) performed an environmental review of the Los Cerritos Wetlands, including the South LCWA site, based on existing environmental documentation (Geosyntec 2017). Sampling locations from these studies are presented in Figure 4.

Previous investigations characterized contamination based on the magnitude of concentrations and sources. Identified sources of contamination included oil wells, oil pipelines, petroleum sumps, Area 18 (area where asphalt-like material was stockpiled and buried), and a construction and demolition landfill. Contaminants present at the site included total petroleum hydrocarbons (TPH), metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, volatile organic compounds (VOCs), and semivolatile organic compounds (SVOCs). The highest TPH concentration measured at the South LCWA site was 149,000 milligrams per kilogram (mg/kg). Lead was identified as the metal likely to be of greatest concern, with concentrations up to 240 mg/kg. PAHs, PCBs, and pesticides have not been analyzed to the same extent as other contaminants. Additional details on previous investigations are provided in environmental reviews conducted by Geosyntec (2017) and Anchor Environmental and Everest International Consultants (2003).

## 1.3 Objectives

Because the South LCWA site is known to contain residual contaminants as a result of historical oil extraction operations, geotechnical and chemistry data were collected to verify functionality of the restoration design and ensure that future site conditions do not represent a potential threat to

human health or ecological receptors. Previous investigations identified several areas with soil contamination at varying depths and magnitudes. A review of previously collected data relative to the revised restoration plan for the site indicates several areas that have not been investigated, including the south side of the site where the new tidal channel is proposed. Similarly, the northeastern side of the site—where the berm will be constructed—has not been investigated to determine soil stability to support added fill material. This geotechnical and environmental site assessment focused on evaluating those areas of the South LCWA site with limited data for three primary objectives:

1. Chemically and geotechnically characterize the overlying cut material to determine suitability for safe and effective reuse on site or for off-site disposal.
2. Evaluate the chemical concentrations at the anticipated soil surface that will be exposed after excavation (i.e., the Z-layer) to support a design that meets limits of defined human health and ecological risk thresholds in the newly restored environment.
3. Evaluate the existing geotechnical site qualities where berms and other structures (e.g., culverts and/or bridges) will be constructed to determine material strength for supporting the planned structures.

## 2 Field Collection Program

Sample collection, handling, and processing procedures were implemented in accordance with the Sampling and Analysis Plan (SAP; Anchor QEA 2021).

### 2.1 Soil Collection

Field sampling was conducted on June 15 through 17, 2022. Soil borings were collected at 15 stations for geotechnical and chemical sampling and testing purposes. Geotechnical sampling locations were chosen to test for physical properties of soils planned for excavation or filling, to estimate soil bearing capacity and other strength-related properties, and to evaluate slope stability of fill and cut slopes. These stations targeted the new berm, culverts proposed for removal, and the potential landfill cut. Environmental sampling locations were chosen to represent the physical and chemical characteristics of soils proposed for removal. Environmental borings were used to evaluate cut material for reuse on site or off-site disposal and to evaluate the Z-layer.

Initially, 18 stations were proposed in the SAP (Anchor QEA 2021); however, three stations were removed from the program or deferred to a later date in coordination with LCWA. Two stations (LCW-14 and LCW-15), located along 1st Avenue, were removed from the program because recent geotechnical data were collected in this area as part of the LCWA Watermain Rehabilitation Project (Kleinfelder 2022). Sampling locations as part of the Watermain Rehabilitation Project are presented in Appendix A. One additional station (LCW-16), which included the 100-foot boring for seismic site classification, was deferred to a later date. Two stations were moved from locations proposed in the SAP, including stations LCW-17 and LCW-18. Station LCW-17 was moved due to an existing utility, while station LCW-18 was moved within the limits of the proposed fill area to provide better access for the drill rig. Proposed and actual sampling locations are presented in Figures 5 and 6.

Borings were collected at five stations using a track-mounted limited access hollow stem auger (HSA) drill rig operated by Cascade Drilling, LP, and ten stations using a hand auger. The hand auger was used to target areas with limited access for the drill rig or areas with minimal soil proposed for removal. Geotechnical borings were advanced to a depth of 25 feet below ground surface (bgs). Standard penetration testing (SPT) was performed using a standard split spoon sampler at approximately 5-foot intervals to boring termination. Geotechnical samples were collected from the split spoon sampler for characterization and strength testing of the soils. For chemistry testing borings, samples were collected continuously to the proposed excavation depth and Z-layer (0.5 foot beyond proposed excavation depth), which represents the future exposed elevation post-restoration. All borings were collected to the target depth, except LCW-01, LCW-06, and LCW-11. All three locations were sampled with a hand auger. After multiple attempts at LCW-06, a successful boring could not be collected with a hand auger due to asphalt and other debris. At stations LCW-01 and LCW-11, refusal was encountered slightly below the target depth. Station coordinates, existing and

proposed habitats, existing and proposed elevations, and boring depths for each station are presented in Table 1.

## 2.2 Sample Processing

The lithology of each boring was recorded on individual boring logs and representative intervals from each boring were photographed. Field logs and sample photographs are provided in Appendices B and C, respectively.

### 2.2.1 Chemical Samples

VOC samples were collected from one sample interval per composite prior to homogenization and compositing to minimize loss of volatile constituents during handling. Soil from each 2-foot interval and the entire length of each boring to the depth of the expected cut were collected and archived to allow for additional chemical analyses, if necessary. The Z-layer from each station, consisting of the 0.5-foot interval below the depth of the expected cut, was also collected and archived to characterize the newly exposed surface layer. As previously described, refusal was encountered just below the target depths at stations LCW-01 and LCW-11; therefore, Z-layer archives were not collected from these stations.

Composite samples were created for chemical analysis. The soil sample compositing scheme and testing strategy is presented in Table 2. Each composite consisted of two stations, except LCW-05 and LCW-07, which were tested individually. Station LCW-05 was located within the historical landfill; therefore, compositing was not planned because soil quality was believed to potentially be inconsistent with other sampling locations. Station LCW-07 was tested individually because a successful boring was not collected at station LCW-06. A proportionate volume of the homogenized soil from each boring, based on relative boring lengths, was combined to form each composite sample. After completion of compositing, samples were placed into jars appropriate for physical and chemical analyses, and all jars will be firmly sealed with Teflon-lined lids. A subsample was collected for particle size analysis and placed in a zip-top bag. All chemistry samples were stored in coolers with ice and delivered to Eurofins Calscience, Inc., located in Garden Grove, California. Particle size samples were stored at room temperature and shipped to GeoTesting Express, Inc., located in Acton, Massachusetts. Proper chain-of-custody procedures were followed.

### 2.2.2 Geotechnical Samples

For each SPT performed, blow counts were recorded for each 6-inch interval of the split spoon driven into the subsurface. Split spoon samplers were retrieved and opened. The percent of recovery was noted, and lithology was interpreted in accordance with ASTM International (ASTM) D2488. A minimum of one subsurface soil sample was collected from each distinct stratum of the soil boring and placed into a zip-top bag. Laboratory test assignments were determined based on the encountered soil types. The geotechnical testing strategy is presented in Table 3. All geotechnical

samples were stored at room temperature and shipped to GeoTesting Express, Inc. Proper chain-of-custody procedures were followed.

### 3 Chemical Analyses Results

Chemical analyses were conducted on soil to determine the suitability of material for reuse on site and evaluate the chemical concentrations at the expected new soil horizon or Z-layer. Chemical analyses of composite samples representing overlying cut material included total solids, particle size, salinity, total organic carbon (TOC), Title 22 metals, PAHs, organochlorine pesticides, PCB Aroclors, TPH, and VOCs. As previously described, VOC samples were collected from one interval per composite prior to homogenization and compositing in order to minimize loss of volatile constituents during handling. Based on the results of composite chemistry, Z-layer samples were analyzed for metals and 2-foot intervals from stations LCW-03 and LCW-04 were also analyzed for PCB Aroclors. Analytical testing was performed by Eurofins Calscience, Inc. Method detection limits, reporting limits, and raw data for the analyses are presented in the chemistry laboratory reports in Appendix D. Particle size analysis was conducted by GeoTesting Express, Inc.

Results of chemical analyses were compared to effects range low (ERL) and effects range median (ERM) values (Long et al. 1995) to evaluate potential ecological impacts. While the wetland is not specifically intended for humans, future activities may include walking trails; therefore, results of chemical analyses were also compared to California Department of Toxic Substances Control modified screening levels (DTSC-SLs; DTSC 2020) to evaluate potential human health impacts. ERLs and ERMs were developed for marine sediments from a large dataset where results of both benthic organism effects (e.g., toxicity tests and benthic assessments) and chemical concentrations were available for individual samples (Long et al. 1995). To derive these guidelines, chemical values for paired data demonstrating benthic impairment were sorted in ascending chemical concentration. The 10th percentile of this rank order distribution was identified as the ERL value, and the 50th percentile was identified as the ERM value. DTSC-SLs were developed based on U.S. Environmental Protection Agency Regional Screening Levels to evaluate human health risk at California sites. For this project, concentrations were compared to DTSC-SLs for residential land use.

#### 3.1 Composite Samples

Results of physical and chemical analyses of composite samples are presented in Table 4. Because VOC were analyzed on individual cores prior to compositing, results are presented separately in Table 5. All results are expressed in dry weight unless otherwise indicated. Composite sample results are summarized as follows:

- Salinity ranged from 2.02 to 5.75 grams per kilogram.
- TOC ranged from 0.285% to 1.2%.
- Several metals were detected in composite samples. Arsenic, copper, and nickel exceeded the ERL value in at least one sample. Arsenic also exceeded the DTSC-SL for residential land use; however, arsenic is a naturally occurring metal found throughout California at background concentrations that commonly exceed soil screening criteria.

- PAHs were detected at low concentrations in six of the seven composite samples. Total PAHs were less than the ERL value in all samples. All PAH concentrations were less than DTSC-SLs.
- The only pesticides detected were DDTs, dieldrin, and cis-nonachlor. Total DDTs and dieldrin exceeded the ERL value in at least one sample. All pesticide concentrations were less than DTSC-SLs.
- PCB Aroclors were detected in one sample (LCW-03/04-COMP). In this sample, total PCB Aroclors exceeded the ERL value. All PCB concentrations were less than DTSC-SLs.
- TPH (C6-C44) ranged from 15 to 800 mg/kg. All TPH concentrations were less than DTSC-SLs.
- All VOC concentrations were less than DTSC-SLs.

Although copper, nickel, DDTs, dieldrin, and total PCB Aroclors exceeded ERL values, all concentrations were less than ERM values. All concentrations except for arsenic were also less than DTSC-SLs. As previously described, arsenic is a naturally occurring metal found throughout California at background concentrations that commonly exceed soil screening criteria. All arsenic concentrations measured in composite samples at the South LCWA site were less than background levels for soil in Southern California (Chernoff et al. 2008).

### 3.2 Sample Intervals from Stations LCW-03 and LCW-04

Based on the results of composite chemistry, individual 2-foot intervals from stations LCW-03 and LCW-04 were analyzed for PCB Aroclors to determine if concentrations at one of these stations or within one or more sample intervals may be at a level of concern. PCB results for individual sample intervals are presented in Table 6. All results are expressed in dry weight unless otherwise indicated. PCB Aroclors were not detected in individual 2-foot intervals, except the 0- to 2-foot interval from station LCW-03. At this station, total PCB Aroclors exceeded the ERL value but were less than the ERM value. All PCB concentrations were less than DTSC-SLs.

### 3.3 Z-Layer Samples

Z-layer samples represent the anticipated soil surface that will be exposed after excavation. Based on the results of composite chemistry, Z-layer samples from each station were analyzed for metals, and Z-layer samples from stations LCW-03 and LCW-04 were also analyzed for PCB Aroclors. Z-layer chemistry results are presented in Table 7. All results are expressed in dry weight unless otherwise indicated. Arsenic, copper, lead, and nickel exceeded ERL values in at least one sample; however, all concentrations were less than ERM values. All concentrations except arsenic were less than DTSC-SLs (similar to composite samples). All arsenic concentrations were less than or similar to background levels for soil in Southern California (Chernoff et al. 2008).

### 3.4 Quality Assurance/Quality Control

A review of analytical results was conducted to evaluate the laboratory's performance in meeting quality assurance/quality control guidelines outlined in the SAP (Anchor QEA 2021). Data validation

reports prepared by Anchor QEA, LLC, are presented in Appendix E. The results of this assessment concluded that most data were acceptable as reported or qualified; however, two results were rejected. Antimony recovered below 30% in the matrix spike and matrix spike duplicate analyzed on sample LCW-02-Z-061522. Low recovery of antimony is a common issue when silicates are present because antimony can form insoluble oxides during the nitric acid digestion. Associated sample results that were below detection were rejected. Although two results were rejected, the data reviewed from South LCWA met the data quality objective of 95% completeness.

## 4 Geotechnical Testing Results

As part of this investigation, 15 borings were conducted (see Section 2), including six borings for geotechnical testing purposes (see Table 1). Five of these borings were conducted with a track-mounted HSA drill rig and one was collected with a hand auger. Boring logs are provided in Appendix B. This subsurface investigation was conducted to assess the soil strata and provide engineering parameters for soil under the proposed berm, the proposed culvert (or bridge) on the roadway, and the proposed culverts to be removed. Geotechnical testing conducted included the following:

- Nineteen moisture content tests (ASTM D2216)
- Nine particle size analysis tests (ASTM D6913)<sup>1</sup>
- Seven Atterberg limit tests (ASTM D4318)

The laboratory testing breakdown for each boring are summarized in Table 3. Geotechnical testing results are included in the full laboratory report in Appendix F.

Moisture content ranged from 2.2% to 189.9%. Based on particle size analysis, percent fines ranged from 8.9% to 66.4%. In addition to particle size analysis on geotechnical borings, particle size analysis was conducted on chemical boring composite samples to support the environmental site assessment. Percent fines on the chemical boring composite samples ranged from 39.3% to 73.1% (Table 4). Along with particle analysis, Atterberg limit tests were conducted on geotechnical samples. The plasticity index of those samples ranged from 9 to 51.

The lithology was observed using visual classification methods within the soil cores sampled through SPT split spoons as well as hand auger cuttings. Two borings were conducted to 26.5 feet, including LCW-17 and LCW-18. These two borings showed a dense silty sand to sandy silt layer in the upper 10 feet. Beneath this layer was a 10-foot-thick layer of fat clay between 10 and 20 feet bgs. Beneath this unit was a silty clayey sand layer that extended to the termination depth of the boring at 26.5 feet bgs. Borings LCW-05, LCW-09, and LCW-13 were drilled to a depth of 10.5 feet bgs. All three borings showed consistent sandy silt with clay material throughout. This layer was generally between soft and medium stiff, with an SPT N-value range of 4 to 25.

Hand augers (including both the chemical and geotechnical borings; Appendix B) were collected to a depth range of 1.3 to 12.6 feet bgs. The upper unit, observed to a depth range between 2.5 and 5.5 feet bgs, consisted of either sand or silty sand. In most cases, the middle layer consisted of a soft or very soft clay. The overall fines content of both layers varied from boring to boring. For example, LCW-07 consisted of a poorly graded sand in the upper unit and a sandy clay in the lower unit.

---

<sup>1</sup> Seven additional particle size tests were performed on composite chemistry samples to support the environmental site assessment. Results for these samples are presented in Table 4, and the laboratory report is provided in Appendix F.

## 5 References

- Anchor and Everest (Anchor Environmental and Everest International Consultants), 2003. *Review of Environmental Site Investigation Reports and Recommendations for Future Evaluations, Hellman Ranch Property, Seal Beach, California*. June 2003.
- Anchor (Anchor Environmental), 2004. *Hellman Ranch Supplemental Environmental Site Investigation*. April 2004.
- Anchor, 2006a. Memorandum to: Mary Small. Regarding: Bryant Property Document Review. May 22, 2006.
- Anchor, 2006b. *Hellman Ranch Groundwater Assessment*. June 2006.
- Anchor QEA (Anchor QEA, LLC), 2021. *Sampling and Analysis Report for Southern Los Cerritos Wetlands Restoration Project*. July 2021.
- BCL Associates, 1987. *Environmental Site Audit and Field Investigation*. June 1987.
- Chernoff, G., W. Bosan, and D. Oudiz, 2008. *Determination of a Southern California Regional Background Arsenic Concentration in Soil*. Available at: <http://www.dtsc.ca.gov/upload/Background-Arsenic.pdf>.
- CRC (Coastal Restoration Consultants), 2021. *The Los Cerritos Wetlands Habitat Restoration Plan*. Final Draft. Prepared for Los Cerritos Wetlands Authority and ESA. March 2021.
- Converse (Converse Environmental West), 1996. *Interim Progress Report Environmental Site Assessment and Review*. December 1996.
- Converse, 1997. *Addendum to Soils Report Binder, Volume 1, Additional Assessment of Oil Field Sumps and Fill Area*. May 1997.
- Converse, 1998a. *Site Investigation Report – Southern California Edison Right-of-Way*. January 1998.
- Converse, 1998b. *Corrective Action Plan (Soil Placement Plan)*. March 1998.
- DTSC (California Department of Toxic Substances Control), 2020. *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-Modified Screening Levels (DTSC-SLs)*. June 2020.
- ESA (Environmental Science Associates), 2020. *Los Cerritos Wetlands Restoration Plan; Final Program Environmental Impact Report*. State Clearinghouse Number 2019039050. Prepared for Los Cerritos Wetlands Authority. October 2020.
- Geomatrix Consultants, 2001. *Report of Environmental Site Investigations at the Hellman Ranch Property, Seal Beach, California*. August 2001.

Geosyntec (Geosyntec Consultants), 2017. Technical Memorandum. *Environmental Review – LCWA Phase I and Phase II Parcels, Los Cerritos Wetlands Restoration*. January 27, 2017.

Kleinfelder, 2022. *Draft Geotechnical Investigation Report, Proposed Los Cerritos Wetlands Authority Watermain Rehabilitation Project, 1st Street/East of Pacific Coast Highway, Seal Beach, California*. Kleinfelder Project No. 20221319.001A. February 7, 2022.

Long, E.R., D.D. MacDonald, S.L. Smith, and F.D. Calder, 1995. "Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments." *Environmental Management* 19:81–97.

# Tables

---

**Table 1**  
**Station Coordinates, Existing and Proposed Elevations, and Boring Depths for Each Sampling Location**

Core Sample ID	Purpose	Existing Habitat Type	Proposed Habitat and/or Construction Element	Latitude (Decimal Degrees) <sup>1</sup>	Longitude (Decimal Degrees) <sup>1</sup>	Existing Elevation (feet NAVD88)	Proposed Cut Elevation (feet NAVD88) <sup>2</sup>	Depth of Z-layer below Proposed Elevation (feet)	Target Boring Depth (feet bgs) <sup>3</sup>	Actual Boring Depth (feet bgs)	Sampling Equipment
LCW-01	Chemical	Ruderal uplands	Low intertidal (new channel)	33.75102	-118.10395	8.6	-1.8	0.5	10.9	10.5	Hand auger
LCW-02	Chemical	Ruderal uplands	Cordgrass marsh	33.75242	-118.10219	8.5	2.9	0.5	6.1	6.1	Hand auger
LCW-03	Chemical	Ruderal uplands	Mid-marsh	33.75114	-118.10224	8.1	4.3	0.5	4.3	4.3	Hand auger
LCW-04	Chemical	Ruderal uplands	Mid-marsh	33.75167	-118.10111	9.9	4.3	0.5	6.1	6.1	Hand auger
LCW-05	Chemical and geotechnical	Ruderal uplands	Mid-marsh (landfill cut)	33.74977	-118.10213	13.5	4.3	0.5	9.7	10.5	HSA drill rig
LCW-06	Chemical	Ruderal uplands	Low intertidal (new channel)	33.74996	-118.10188	11.2	-1.8	0.5	13.5	1.7	Hand auger
LCW-07	Chemical	Ruderal uplands	Low intertidal (new channel)	33.75024	-118.09962	10.3	-1.8	0.5	12.6	12.6	Hand auger
LCW-08	Chemical	Berm between salt flat and southern coastal salt marsh	Mid-marsh (berm cut)	33.75157	-118.09981	10.9	4.3	0.5	7.1	7.1	Hand auger
LCW-09	Chemical and geotechnical	Vegetation-free zone	Low intertidal (culvert removal)	33.75183	-118.09930	7.1	-1.8	0.5	9.4	10.5	HSA drill rig
LCW-10	Chemical	Ruderal uplands	Mid-marsh	33.75085	-118.09870	10.6	4.3	0.5	6.8	6.8	Hand auger
LCW-11	Chemical and geotechnical	Ruderal uplands	Low intertidal (new channel)	33.75060	-118.09763	11	-1.8	0.5	13.3	12.0	Hand auger
LCW-12	Chemical	Ruderal uplands	Mid-marsh	33.75087	-118.09628	12.2	4.3	0.5	8.4	8.4	Hand auger
LCW-13	Chemical and geotechnical	Vegetation-free zone	Low intertidal (culvert removal)	33.75156	-118.09631	7.6	-1.8	0.5	9.9	10.5	HSA drill rig
LCW-17	Geotechnical	Ruderal uplands	New berm	33.75195	-118.09556	5.5	--	--	25	26.5	HSA drill rig
LCW-18	Geotechnical	Ruderal uplands	Fill area	33.75147	-118.09496	10.2	--	--	25	26.5	HSA drill rig

Notes:

1. Based on North American Datum of 1983.
2. Proposed cut elevation is based on the habitat elevation ranges for full tidal conditions (no muting), as presented in Table 6-1 of *The Los Cerritos Wetlands Habitat Restoration Plan* (CRC 2021). The lower end of the elevation range was conservatively used.
3. For chemical borings, target boring depth includes the depth to achieve design depth plus Z-layer.
4. Refusal.
5. After multiple attempts, a successful boring could not be collected due to asphalt and other debris; sample discarded.

--: not applicable

bgs: below ground surface

HSA: hollow stem auger

NAVD88: North American Vertical Datum of 1988

**Table 2**  
**Compositing Scheme and Chemical Testing Strategy**

Core Sample ID	Composite Sample ID	Archive			Composite Chemical Analysis <sup>1</sup>
		2-Foot Interval	Core	Z-layer	
LCW-01	LCW-01/02	X	X	-- <sup>2</sup>	X
LCW-02		X	X	X	
LCW-03	LCW-03/04	X	X	X	X
LCW-04		X	X	X	
LCW-05	--	X	X	X	X
LCW-06	--	-- <sup>3</sup>	-- <sup>3</sup>	-- <sup>3</sup>	-- <sup>3</sup>
LCW-07	--	X	X	X	X
LCW-08	LCW-08/09	X	X	X	X
LCW-09		X	X	X	
LCW-10	LCW-10/11	X	X	X	X
LCW-11		X	X	-- <sup>2</sup>	
LCW-12	LCW-12/13	X	X	X	X
LCW-13		X	X	X	

Notes:

1. Volatile organic compounds were collected from one interval per composite prior to homogenization and compositing to minimize loss of volatile constituents during handling.
  2. Z-layer depth was not achieved due to refusal.
  3. After multiple attempts, unable to collect successful core.
- : not applicable

**Table 3**  
**Geotechnical Testing Strategy**

Core Sample ID	Sample Interval (feet bgs)	Sample ID	Geotechnical Testing		
			Grain Size	Moisture Content	Atterberg Limits
LCW-05	0 to 1.5	LCW-05-0-1.5	X	X	--
	4.5 to 6	LCW-05-4.5-6	--	X	X
LCW-09	0 to 1.5	LCW-09-0-1.5	X	X	--
	6 to 7.5	LCW-09-6-7.5	--	X	X
LCW-11	0 to 2	LCW-11-0-2	X	X	--
	4 to 6	LCW-11-4-6	--	X	X
LCW-13	0 to 1.5	LCW-13-0-1.5	X	X	--
	4.5 to 6	LCW-13-4.5-6	--	X	X
LCW-17	0 to 1.5	LCW-17-0-1.5	X	X	--
	5 to 6.5	LCW-17-5-6.5	--	X	--
	10 to 11.5	LCW-17-10-11.5	--	X	X
	15 to 16.5	LCW-17-15-16.5	--	X	--
	20 to 21.5	LCW-17-20-21.5	X	X	--
LCW-18	0 to 1.5	LCW-18-0-1.5	--	X	--
	5 to 6.5	LCW-18-5-6.5	X	X	--
	10 to 11.5	LCW-18-10-11.5	--	X	X
	15.4 to 16.3	LCW-18-15.4-16.3	--	X	X
	20 to 21.5	LCW-18-20-21.5	X	X	--
	25 to 26.5	LCW-18-25-26.5	X	X	--

Note:  
bgs: below ground surface

**Table 4**  
**Composite Soil Chemistry Results**

Chemical	Task Location ID Sample ID Sample Date Sample Type Matrix	LCWA_2022 LCW-01/02-COMP LCW-01/02-061522 6/15/2022 N SO	LCWA_2022 LCW-03/04-COMP LCW-03/04-061522 6/15/2022 N SO	LCWA_2022 LCW-05 LCW-05-061722 6/17/2022 N SO	LCWA_2022 LCW-07 LCW-07-061722 6/17/2022 N SO	LCWA_2022 LCW-08/09-COMP LCW-08/09-061722 6/17/2022 N SO	LCWA_2022 LCW-10/11-COMP LCW-10/11-061722 6/17/2022 N SO	LCWA_2022 LCW-12/13-COMP LCW-12/13-061722 6/17/2022 N SO	ERL	ERM	DTSC HHRA Residential <sup>1</sup>
<b>Conventional Parameters (deg C)</b>											
Temperature		22	20.8	20.6	21.9	20.8	21.8	22.7	--	--	--
<b>Conventional Parameters (g/kg)</b>											
Salinity		3.21	2.78	-- U	-- U	5.75	2.02	3.39	--	--	--
<b>Conventional Parameters (pct)</b>											
Total organic carbon		0.79	0.757	0.973	0.285	0.923	1.05	1.2	--	--	--
Total Solids		79.6	87	88.3	85.2	83.7	74	81	--	--	--
<b>Grain Size (pct)</b>											
Gravel		6.9	10.5	12.3	0	4.9	0.3	20.7	--	--	--
Sand		44.2	32.7	48.4	45.6	40.8	26.6	19.1	--	--	--
Silt and Clay		48.9	56.8	39.3	54.4	54.3	73.1	60.2	--	--	--
<b>Metals (mg/kg)</b>											
Antimony		0.510 J	0.255 J	0.318 J	0.242 J	0.224 J	0.303 J	0.163 J	--	--	--
Arsenic		9.75	10.8	7.65	4.19	9.82	7.89	7.79	8.2	70	0.11
Barium		180	372	142	103	119	186	137	--	--	--
Beryllium		0.784 U	0.721 U	0.725 U	0.739 U	0.745 U	0.852 U	0.785 J	--	--	16
Cadmium		0.219 J	0.218 J	0.251 J	0.138 J	0.220 J	0.272 J	0.542 J	1.2	9.6	--
Chromium		29.5	27.5	30	24.1	24.5	36.8	28.3	81	370	--
Cobalt		15.7	12.4	12.9	11.4	10.4	15.2	11.4	--	--	--
Copper		35.6	27.2	38.5	20	28	40	28	34	270	--
Lead		12.6	16.2	19.9	7.73	16.1	14.8	11.1	46.7	218	80
Mercury		0.0705 J	0.0383 J	0.0410 J	0.0316 J	0.0784 J	0.0442 J	0.0403 J	0.15	0.71	1
Molybdenum		0.928 J	1.33 J	0.721 J	0.622 U	1.39 J	2.01 J	1.27	--	--	--
Nickel		27.1	24.6	25.2	21.9	20	30.5	22.9	20.9	51.6	820
Selenium		0.866 U	0.796 U	0.800 U	0.817 U	0.823 U	0.941 U	0.863 U	--	--	--
Silver		0.272 U	0.251 U	0.252 U	0.257 U	0.259 U	0.296 U	0.272 U	1	3.7	--
Thallium		0.216 J	0.220 J	0.182 J	0.164 J	0.158 J	0.220 J	0.234 J	--	--	--
Vanadium		60.7	54.9	56.5	50.7	46.2	68.5	46.5	--	--	--
Zinc		84.6	84.4	85.3	59.1	71	103	95	150	410	--
<b>Polycyclic Aromatic Hydrocarbons (µg/kg)</b>											
1-Methylnaphthalene		2.4 U	2.2 U	11 U	2.3 U	29	2.6 U	12 U	--	--	9,900
1-Methylphenanthrene		2.7 U	2.5 U	12 U	2.6 U	2.6 U	2.9 U	13 U	--	--	--
2,6-Dimethylnaphthalene		1.6 U	1.5 U	7.2 U	1.5 U	90	1.7 U	7.9 U	--	--	--
2-Methylnaphthalene		2.3 U	2.1 U	10 U	2.2 U	32	2.5 U	11 U	70	670	190,000
Acenaphthene		2.7 U	2.5 U	12 U	2.5 U	3.1 J	2.9 U	13 U	16	500	3,300,000
Acenaphthylene		3.5 J	2.4 U	12 U	2.5 U	2.5 U	2.8 U	13 U	44	640	--
Anthracene		29	2.2 U	11 U	2.2 U	2.3 U	2.6 U	12 U	85.3	1100	17,000,000
Benzo(a)anthracene		8.1	2.6 J	13 U	2.6 U	4.8 J	3.8 J	14 U	261	1600	1,100
Benzo(a)pyrene		13	3.4 U	17 U	3.5 U	3.5 U	5.0 J	18 U	430	1600	110
Benzo(e)pyrene		13	4.5 J	8.5 J	1.5 U	10	7.2	17 J	--	--	--
Biphenyl (1,1'-Biphenyl)		1.8 U	1.7 U	8.2 U	1.7 U	1.7 U	2.0 U	9.0 U	--	--	47,000
Chrysene		14	4.0 J	9.3 U	1.9 U	21	6.8	19 J	384	2800	110,000
Dibenzo(a,h)anthracene		2.8 J	2.2 U	11 U	2.3 U	2.3 U	2.6 U	12 U	63.4	260	28
Fluoranthene		18	4.4 J	16 U	3.3 U	7	6.6 J	17 U	600	5100	2,400,000
Fluorene		2.7 U	2.5 U	12 U	2.6 U	8.6	3.0 U	14 U	19	540	2,300,000

**Table 4**  
**Composite Soil Chemistry Results**

Chemical	Task	LCWA_2022	LCWA_2022	LCWA_2022	LCWA_2022	LCWA_2022	LCWA_2022	LCWA_2022	ERL	ERM	DTSC HHRA Residential <sup>1</sup>
	Location ID	LCW-01/02-COMP	LCW-03/04-COMP	LCW-05	LCW-07	LCW-08/09-COMP	LCW-10/11-COMP	LCW-12/13-COMP			
	Sample ID	LCW-01/02-061522	LCW-03/04-061522	LCW-05-061722	LCW-07-061722	LCW-08/09-061722	LCW-10/11-061722	LCW-12/13-061722			
	Sample Date	6/15/2022	6/15/2022	6/17/2022	6/17/2022	6/17/2022	6/17/2022	6/17/2022			
	Sample Type	N	N	N	N	N	N	N			
	Matrix	SO	SO	SO	SO	SO	SO	SO			
Naphthalene		1.8 U	1.6 U	8.0 U	1.7 U	1.7 U	1.9 U	8.7 U	160	2100	2,000
Perylene		<b>7.8</b>	<b>12</b>	<b>62</b>	3.2 U	<b>33</b>	<b>7.3</b>	<b>52</b>	--	--	--
Phenanthrene		<b>10</b>	<b>2.6 J</b>	12 U	2.5 U	<b>32</b>	<b>3.7 J</b>	13 U	240	1500	--
Pyrene		<b>19</b>	<b>4.7 J</b>	18 U	3.7 U	<b>9.3</b>	<b>11</b>	20 U	665	2600	1,800,000
Total LPAH (U = 0 max limit)		<b>43 J</b>	<b>2.6 J</b>	12 U	2.6 U	<b>195 J</b>	<b>3.7 J</b>	14 U	--	--	--
Total HPAH (U = 0 max limit)		<b>96 J</b>	<b>32 J</b>	<b>71 J</b>	3.7 U	<b>85 J</b>	<b>48 J</b>	<b>88 J</b>	--	--	--
Total PAH (U = 0 max limit)		<b>140 J</b>	<b>35 J</b>	<b>71 J</b>	3.7 U	<b>280 J</b>	<b>51 J</b>	<b>88 J</b>	4022	44792	--
<b>Pesticides (µg/kg)</b>											
2,4'-DDD (o,p'-DDD)		0.080 U	0.074 U	0.072 U	0.075 U	<b>0.84 J</b>	0.086 U	<b>0.76 J</b>	--	--	--
2,4'-DDE (o,p'-DDE)		1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.4 U	1.3 U	--	--	--
2,4'-DDT (o,p'-DDT)		0.12 U	0.11 U	0.10 U	0.11 U	0.11 U	0.12 U	0.11 U	--	--	--
4,4'-DDD (p,p'-DDD)		<b>1.2 J</b>	0.57 U	0.56 U	0.58 U	<b>2.5</b>	<b>1.2 J</b>	<b>3</b>	2	20	1,900
4,4'-DDE (p,p'-DDE)		0.34 U	0.31 U	<b>0.72 J</b>	0.32 U	<b>2.3 J</b>	<b>1.8</b>	<b>1.4 J</b>	2.2	27	2,000
4,4'-DDT (p,p'-DDT)		0.39 U	0.35 U	<b>1.9</b>	0.36 U	0.37 U	0.42 U	<b>1.1 J</b>	1	7	1,900
Aldrin		0.46 U	0.42 U	0.41 U	0.43 U	0.44 U	0.49 U	0.45 U	--	--	39
Chlordane (technical)		<i>0.90 U</i>	<i>0.82 U</i>	<i>0.81 U</i>	<i>0.83 U</i>	<i>0.85 U</i>	<i>0.96 U</i>	<i>0.88 U</i>	0.5	6	1,700
Chlordane, alpha- (Chlordane, cis-)		0.13 U	0.12 U	0.12 U	0.12 U	0.12 U	0.14 U	0.13 U	--	--	--
Chlordane, beta- (Chlordane, trans-)		0.44 U	0.40 U	0.40 U	0.41 U	0.42 U	0.47 U	0.43 U	--	--	--
Dieldrin		<i>0.083 U</i>	<i>0.076 U</i>	<i>0.075 U</i>	<i>0.077 U</i>	<i>0.079 U</i>	<i>0.089 U</i>	<b>0.18 J</b>	0.02	8	34
Endosulfan sulfate		0.14 U	0.12 U	0.12 U	0.13 U	0.13 U	0.15 U	0.13 U	--	--	380,000
Endosulfan, alpha- (I)		0.15 U	0.13 U	0.13 U	0.14 U	0.14 U	0.16 U	0.14 U	--	--	--
Endosulfan, beta (II)		0.28 U	0.26 U	0.26 U	0.26 U	0.27 U	0.31 U	0.28 U	--	--	--
Endrin		0.24 U	0.22 U	0.21 U	0.22 U	0.23 U	0.26 U	0.23 U	--	--	19,000
Endrin aldehyde		1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.3 U	1.2 U	--	--	--
Heptachlor		0.075 U	0.068 U	0.067 U	0.070 U	0.071 U	0.080 U	0.073 U	--	--	130
Heptachlor epoxide		0.11 U	0.098 U	0.096 U	0.10 U	0.10 U	0.12 U	0.10 U	--	--	70
Hexachlorocyclohexane (BHC), alpha-		0.10 U	0.092 U	0.090 U	0.094 U	0.096 U	0.11 U	0.099 U	--	--	86
Hexachlorocyclohexane (BHC), beta-		0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.26 U	0.24 U	--	--	300
Hexachlorocyclohexane (BHC), delta-		0.19 U	0.17 U	0.17 U	0.18 U	0.18 U	0.20 U	0.18 U	--	--	--
Hexachlorocyclohexane (BHC), gamma- (Lindane)		0.13 U	0.12 U	0.12 U	0.12 U	0.13 U	0.14 U	0.13 U	--	--	570
Nonachlor, cis-		0.059 U	<b>2.9</b>	0.053 U	0.055 U	0.056 U	0.064 U	0.058 U	--	--	--
Nonachlor, trans-		0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.15 U	0.14 U	--	--	--
Oxychlordane		0.19 U	0.17 U	0.17 U	0.17 U	0.18 U	0.20 U	0.18 U	--	--	--
Total BHC (U = 0 max limit)		0.24 U	0.22 U	0.22 U	0.22 U	0.23 U	0.26 U	0.24 U	--	--	--
Total DDX (U = 0 max limit)		<b>1.2 J</b>	1.2 U	<b>2.6 J</b>	1.2 U	<b>5.6 J</b>	<b>3.0 J</b>	<b>6.3 J</b>	1.58	46.1	--
Toxaphene		<i>1.2 U</i>	<i>1.1 U</i>	<i>1.1 U</i>	<i>1.2 U</i>	<i>1.2 U</i>	<i>1.3 U</i>	<i>1.2 U</i>	--	--	450

**Table 4**  
**Composite Soil Chemistry Results**

Chemical	Task Location ID Sample ID Sample Date Sample Type Matrix	LCWA_2022 LCW-01/02-COMP LCW-01/02-061522 6/15/2022 N SO	LCWA_2022 LCW-03/04-COMP LCW-03/04-061522 6/15/2022 N SO	LCWA_2022 LCW-05 LCW-05-061722 6/17/2022 N SO	LCWA_2022 LCW-07 LCW-07-061722 6/17/2022 N SO	LCWA_2022 LCW-08/09-COMP LCW-08/09-061722 6/17/2022 N SO	LCWA_2022 LCW-10/11-COMP LCW-10/11-061722 6/17/2022 N SO	LCWA_2022 LCW-12/13-COMP LCW-12/13-061722 6/17/2022 N SO	ERL	ERM	DTSC HHRA Residential <sup>1</sup>
<b>PCB Aroclors (µg/kg)</b>											
Aroclor 1016		6.9 U	6.3 U	6.2 U	6.4 U	6.6 U	7.4 U	6.8 U	--	--	4,000
Aroclor 1221		6.9 U	6.3 U	6.2 U	6.4 U	6.6 U	7.4 U	6.8 U	--	--	200
Aroclor 1232		6.9 U	6.3 U	6.2 U	6.4 U	6.6 U	7.4 U	6.8 U	--	--	170
Aroclor 1242		6.9 U	6.3 U	6.2 U	6.4 U	6.6 U	7.4 U	6.8 U	--	--	230
Aroclor 1248		6.9 U	6.3 U	6.2 U	6.4 U	6.6 U	7.4 U	6.8 U	--	--	230
Aroclor 1254		6.2 U	<b>39</b>	5.6 U	5.8 U	5.9 U	6.7 U	6.1 U	--	--	240
Aroclor 1260		6.2 U	5.7 U	5.6 U	5.8 U	5.9 U	6.7 U	6.1 U	--	--	240
Aroclor 1262		6.2 U	5.7 U	5.6 U	5.8 U	5.9 U	6.7 U	6.1 U	--	--	--
Aroclor 1268		6.2 U	5.7 U	5.6 U	5.8 U	5.9 U	6.7 U	6.1 U	--	--	--
Total PCB Aroclors (U = 0 max limit)		6.9 U	<b>39</b>	6.2 U	6.4 U	6.6 U	7.4 U	6.8 U	22.7	180	--
<b>Total Petroleum Hydrocarbons (mg/kg)</b>											
Diesel range organics (C10 - C28)		4.8 U	<b>33</b>	<b>130</b>	<b>10</b>	<b>510</b>	5.2 U	<b>500</b>	--	--	--
Total petroleum hydrocarbons (C6-C44)		<b>21</b>	<b>140</b>	<b>370</b>	<b>30</b>	<b>800</b>	<b>15</b>	<b>850</b>	--	--	--
Total petroleum hydrocarbons (C6)		4.8 U	4.4 U	4.3 U	4.5 U	4.6 U	5.2 U	4.7 U	--	--	--
Total petroleum hydrocarbons (C7)		4.8 U	4.4 U	4.3 U	4.5 U	4.6 U	5.2 U	4.7 U	--	--	--
Total petroleum hydrocarbons (C8)		4.8 U	4.4 U	4.3 U	4.5 U	4.6 U	5.2 U	4.7 U	--	--	--
Total petroleum hydrocarbons (C9-C10)		4.8 U	4.4 U	4.3 U	4.5 U	4.6 U	5.2 U	4.7 U	--	--	--
Total petroleum hydrocarbons (C11-C12)		4.8 U	4.4 U	4.3 U	4.5 U	<b>8.9</b>	5.2 U	4.7 U	--	--	--
Total petroleum hydrocarbons (C13-C14)		4.8 U	4.4 U	4.3 U	4.5 U	<b>28</b>	5.2 U	<b>8.8</b>	--	--	--
Total petroleum hydrocarbons (C15-C16)		4.8 U	4.4 U	4.3 U	4.5 U	<b>41</b>	5.2 U	<b>25</b>	--	--	--
Total petroleum hydrocarbons (C9-C16) (U = 0 max limit)		4.8 U	4.4 U	4.3 U	4.5 U	<b>77.9</b>	5.2 U	<b>33.8</b>	--	--	97
Total petroleum hydrocarbons (C17-C18)		4.8 U	4.4 U	<b>4.5 J</b>	4.5 U	<b>54</b>	5.2 U	<b>47</b>	--	--	--
Total petroleum hydrocarbons (C19-C20)		4.8 U	4.4 U	<b>8.2</b>	4.5 U	<b>65</b>	5.2 U	<b>68</b>	--	--	--
Total petroleum hydrocarbons (C21-C22)		4.8 U	4.4 U	<b>13</b>	4.5 U	<b>67</b>	5.2 U	<b>74</b>	--	--	--
Total petroleum hydrocarbons (C23-C24)		4.8 U	<b>7</b>	<b>25</b>	4.5 U	<b>77</b>	5.2 U	<b>91</b>	--	--	--
Total petroleum hydrocarbons (C25-C28)		4.8 U	<b>22</b>	<b>80</b>	<b>8.9</b>	<b>170</b>	5.2 U	<b>180</b>	--	--	--
Total petroleum hydrocarbons (C29-C32)		4.8 U	<b>34</b>	<b>120</b>	<b>9.4</b>	<b>160</b>	5.2 U	<b>180</b>	--	--	--
Total petroleum hydrocarbons (C17-C32) (U = 0 max limit)		4.8 U	<b>63</b>	<b>251</b>	<b>18</b>	<b>593</b>	5.2 U	<b>640</b>	--	--	2,400
Total petroleum hydrocarbons (C33-C36)		4.8 U	<b>30</b>	<b>73</b>	<b>6.5</b>	<b>84</b>	5.2 U	<b>100</b>	--	--	--
Total petroleum hydrocarbons (C37-C40)		4.8 U	<b>29</b>	<b>41</b>	4.5 U	<b>45</b>	5.2 U	<b>55</b>	--	--	--
Total petroleum hydrocarbons (C41-C44)		4.8 U	<b>12</b>	<b>16</b>	4.5 U	<b>18</b>	5.2 U	<b>21</b>	--	--	--

**Table 4**  
**Composite Soil Chemistry Results**

Notes:  
All nondetect results are reported at the method detection limit.  
Gamma chlordane and trans-chlordane are synonymous and refer to CAS RN 5103-74-2.  
Total BHC is the sum of alpha-, beta-, delta-, and gamma-hexachlorocyclohexane (BHC).  
Total chlordane is the sum of cis-chlordane, trans-chlordane, cis-nonachlor, trans-nonachlor, and oxychlordane.  
Total DDx is the sum of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, 2,4'-DDD, 2,4'-DDE, and 2,4'-DDT if measured.  
Total HPAH is the sum of benzo(a)anthracene, benzo(a)pyrene, benzo(e)pyrene, chrysene, dibenzo(a,h)anthracene, fluoranthene, perylene, and pyrene.  
Total LPAH is the sum of 1-methylnaphthalene, 1-methylphenanthrene, 2,6-dimethylnaphthalene, 2-methylnaphthalene, acenaphthylene, acenaphthene, anthracene, biphenyl, fluorene, naphthalene, and phenanthrene.  
Total PAH is the total of all PAHs listed in this table.  
Total PCB Aroclors is the total of all PCB Aroclors listed in this table.  
Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest method detection limit value is reported as the sum.  
USEPA Stage 2A data validation was completed by Anchor QEA.

1. More conservative of cancer or noncancer endpoint used for DTSC HHRA screening levels

■ Detected concentration is greater than ERL screening level

■ Detected concentration is greater than DTSC HHRA Residential cancer or noncancer screening level

*Italicized* : Non-detected concentration is above one or more identified screening levels

**Bold**: Detected result

--: not applicable

µg/kg: micrograms per kilogram

BHC: benzene hexachloride

Deg C: degrees Celsius

DTSC: California Department of Toxic Substances Control

ERL: effects range low

ERM: effects range median

g/kg: grams per kilogram

HHRA: human health risk assessment

HPAH: high-molecular-weight polycyclic aromatic hydrocarbon

J: Estimated value

LPAH: low-molecular-weight polycyclic aromatic hydrocarbon

mg/kg: milligrams per kilogram

N: normal environmental sample

PAH: polycyclic aromatic hydrocarbons

PCB: polychlorinated biphenyl

pct: percent

SO: soil

U: Compound analyzed for, but not detected above detection limit

**Table 5**  
**VOC Results**

Chemical	Task Location ID Sample ID Sample Date Sample Type Matrix	LCWA_2022 LCW-02 LCW-02-061522 6/15/2022 N SO	LCWA_2022 LCW-04 LCW-04-061522 6/15/2022 N SO	LCWA_2022 LCW-05 LCW-05-061722 6/17/2022 N SO	LCWA_2022 LCW-09 LCW-09-061722 6/17/2022 N SO	LCWA_2022 LCW-11 LCW-11-061622 6/17/2022 N SO	LCWA_2022 LCW-12 LCW-12-061622 6/17/2022 N SO	DTSC HHRA Residential <sup>1</sup>
<b>Volatile Organics (µg/kg)</b>								
1,1,1,2-Tetrachloroethane		0.39 U	0.40 U	0.34 U	0.37 U	0.43 U	23 U	2,000
1,1,1-Trichloroethane		0.31 U	0.32 U	0.27 U	0.29 U	0.35 U	18 U	1,700,000
1,1,2,2-Tetrachloroethane		0.72 U	0.74 U	0.63 U	0.69 U	0.81 U	43 U	600
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		0.61 U	0.63 U	0.54 U	0.58 U	0.68 U	36 U	--
1,1,2-Trichloroethane		0.62 U	0.63 U	0.54 U	0.59 U	0.69 U	36 U	--
1,1-Dichloroethane		0.37 U	0.38 U	0.32 U	0.35 U	0.41 U	22 U	3,600
1,1-Dichloroethene		0.35 U	0.36 U	0.31 U	0.33 U	0.39 U	21 U	83,000
1,1-Dichloropropene		0.52 U	0.53 U	0.45 U	0.49 U	0.57 U	30 U	--
1,2,3-Trichlorobenzene		1.3 U	1.4 U	1.2 U	1.3 U	1.5 U	78 U	40,000
1,2,3-Trichloropropane		0.56 U	0.57 U	0.49 U	0.53 U	0.62 U	33 U	1.5
1,2,4-Trichlorobenzene		0.55 U	0.56 U	0.47 U	0.52 U	0.61 U	32 U	7,800
1,2,4-Trimethylbenzene		0.80 U	0.82 U	0.69 U	0.76 U	0.89 U	47 U	--
1,2-Dibromo-3-chloropropane		9.0 U	9.3 U	7.8 U	8.5 U	10 U	530 U	4.3
1,2-Dichlorobenzene		0.33 U	0.34 U	0.29 U	0.32 U	0.37 U	20 U	--
1,2-Dichloroethane		0.37 U	0.38 U	0.32 U	0.35 U	0.41 U	22 U	--
1,2-Dichloroethene, cis-		0.45 U	0.46 U	0.39 U	0.43 U	0.50 U	26 U	18,000
1,2-Dichloroethene, trans-		0.40 U	0.41 U	0.35 U	0.38 U	0.45 U	24 U	130,000
1,2-Dichloropropane		0.37 U	0.38 U	0.32 U	0.35 U	0.41 U	22 U	--
1,3,5-Trimethylbenzene (Mesitylene)		0.36 U	0.37 U	0.31 U	0.34 U	0.40 U	21 U	--
1,3-Dichlorobenzene		0.34 U	0.35 U	0.29 U	0.32 U	0.37 U	20 U	--
1,3-Dichloropropane		0.39 U	0.40 U	0.34 U	0.37 U	0.44 U	23 U	410,000
1,3-Dichloropropene, cis-		0.46 U	0.48 U	0.40 U	0.44 U	0.52 U	27 U	--
1,3-Dichloropropene, trans-		0.37 U	0.38 U	0.32 U	0.35 U	0.41 U	22 U	--
1,4-Dichlorobenzene		0.41 U	0.42 U	0.35 U	0.39 U	0.45 U	24 U	--
2,2-Dichloropropane		0.36 U	0.37 U	0.31 U	0.34 U	0.40 U	21 U	--
2-Chlorotoluene		0.34 U	0.34 U	0.29 U	0.32 U	0.37 U	20 U	470,000
2-Hexanone (Methyl butyl ketone)		4.1 U	4.2 U	3.6 U	3.9 U	4.6 U	240 U	--
4-Chlorotoluene		0.32 U	0.33 U	0.28 U	0.30 U	0.36 U	19 U	440,000
4-Methyl-2-pentanone (Methyl isobutyl ketone)		3.9 U	4.0 U	3.4 U	3.7 U	4.3 U	230 U	--
Acetone		13 U	<b>37</b>	<b>21 J</b>	<b>58</b>	15 U	770 U	--
Benzene		<b>1.3</b>	<b>2</b>	<b>1.5</b>	<b>0.90 J</b>	<b>1.4 J</b>	20 U	330
Bromobenzene		0.28 U	0.29 U	0.24 U	0.26 U	0.31 U	16 U	--
Bromochloromethane		0.59 U	0.61 U	0.51 U	0.56 U	0.66 U	35 U	--
Bromodichloromethane		0.43 U	0.44 U	0.38 U	0.41 U	0.48 U	26 U	290
Bromoform (Tribromomethane)		1.8 U	1.8 U	1.5 U	1.7 U	2.0 U	100 U	19,000
Bromomethane (Methyl bromide)		8.7 U	9.0 U	7.6 U	8.3 U	9.7 U	520 U	--
Carbon disulfide		0.53 U	<b>2.3 J</b>	<b>15</b>	0.50 U	0.59 U	<b>320 J</b>	--
Carbon tetrachloride (Tetrachloromethane)		0.40 U	0.41 U	0.35 U	0.38 U	0.44 U	23 U	650
Chlorobenzene		0.36 U	0.37 U	0.31 U	0.34 U	0.40 U	21 U	--
Chloroethane		0.99 U	1.0 U	0.86 U	0.94 U	1.1 U	58 U	--
Chloroform		0.78 U	0.81 U	0.68 U	0.74 U	0.87 U	46 U	--
Chloromethane		2.0 U	2.1 U	1.8 U	1.9 U	2.3 U	120 U	--
Cymene, p- (4-Isopropyltoluene)		0.38 U	0.39 U	0.33 U	0.36 U	0.42 U	22 U	--
Dibromochloromethane		0.36 U	0.37 U	0.32 U	0.34 U	0.40 U	21 U	940

**Table 5**  
**VOC Results**

Chemical	Task Location ID Sample ID Sample Date Sample Type Matrix	LCWA_2022 LCW-02 LCW-02-061522 6/15/2022 N SO	LCWA_2022 LCW-04 LCW-04-061522 6/15/2022 N SO	LCWA_2022 LCW-05 LCW-05-061722 6/17/2022 N SO	LCWA_2022 LCW-09 LCW-09-061722 6/17/2022 N SO	LCWA_2022 LCW-11 LCW-11-061622 6/17/2022 N SO	LCWA_2022 LCW-12 LCW-12-061622 6/17/2022 N SO	DTSC HHRA Residential <sup>1</sup>
Dibromomethane		0.41 U	0.42 U	0.35 U	0.38 U	0.45 U	24 U	--
Dichlorodifluoromethane		0.60 U	0.62 U	0.52 U	0.57 U	0.67 U	36 U	--
Dichloromethane (Methylene chloride)		4.2 U	4.3 U	3.6 U	3.9 U	4.6 U	240 U	2,200
Diisopropylether (Isopropyl Ether)		0.66 U	0.68 U	0.58 U	0.63 U	0.74 U	39 U	--
Ethanol		88 U	90 U	76 U	83 U	98 U	5200 U	--
Ethyl tert-butyl ether (ETBE)		0.31 U	0.32 U	0.27 U	0.30 U	0.35 U	19 U	--
Ethylbenzene		0.27 U	0.28 U	0.24 U	<b>0.48 J</b>	0.31 U	16 U	--
Ethylene dibromide (1,2-Dibromoethane)		0.27 U	0.28 U	0.24 U	0.26 U	0.30 U	16 U	36
Isopropylbenzene (Cumene)		0.37 U	0.38 U	0.32 U	0.35 U	0.41 U	22 U	--
m,p-Xylene		0.63 U	0.65 U	0.55 U	<b>1.7 J</b>	0.70 U	37 U	--
Methyl ethyl ketone (2-Butanone)		6.0 U	6.2 U	5.2 U	<b>8.0 J</b>	6.7 U	350 U	--
Methyl tert-butyl ether (MTBE)		0.25 U	0.26 U	0.22 U	0.24 U	0.28 U	15 U	--
Naphthalene		6.9 U	7.1 U	6.0 U	6.6 U	7.7 U	410 U	2,000
n-Butylbenzene		0.28 U	0.29 U	0.24 U	0.27 U	0.31 U	16 U	2,400,000
n-Propylbenzene		0.35 U	0.36 U	0.30 U	0.33 U	0.39 U	20 U	--
o-Xylene		0.34 U	0.35 U	0.30 U	<b>0.50 J</b>	0.38 U	20 U	--
sec-Butylbenzene		0.36 U	0.37 U	0.32 U	0.35 U	0.41 U	21 U	2,200,000
Styrene		0.42 U	0.43 U	0.37 U	0.40 U	0.47 U	25 U	5,600,000
tert-Amyl methyl ether (TAME)		0.26 U	0.27 U	0.22 U	0.24 U	0.29 U	15 U	--
tert-Butyl alcohol (2-Methyl-2-propanol)		9.3 U	9.6 U	8.1 U	8.8 U	10 U	550 U	--
tert-Butylbenzene		0.34 U	0.35 U	0.29 U	0.32 U	0.38 U	20 U	2,200,000
Tetrachloroethene (PCE)		0.30 U	0.31 U	0.26 U	0.28 U	0.33 U	18 U	590
Toluene		<b>0.57 J</b>	<b>1.2 J</b>	<b>0.72 J</b>	<b>0.57 J</b>	<b>0.59 J</b>	<b>24 J</b>	1,100,000
Total xylene (U = 0 max limit)		0.63 U	0.65 U	0.55 U	<b>2.2 J</b>	0.70 U	37 U	--
Trichloroethene (TCE)		0.51 U	0.53 U	0.45 U	0.49 U	0.57 U	30 U	--
Trichlorofluoromethane (Fluorotrichloromethane)		0.36 U	0.37 U	0.32 U	0.34 U	0.40 U	21 U	1,200,000
Vinyl acetate		5.2 U	5.4 U	4.5 U	4.9 U	5.8 U	310 U	--
Vinyl chloride		0.50 U	0.52 U	0.44 U	0.48 U	0.56 U	30 U	8.2

Notes:  
 All nondetect results are reported at the method detection limit.  
 USEPA Stage 2A data validation was completed by Anchor QEA.  
 1. More conservative of cancer or noncancer endpoint used for DTSC HHRA screening levels  
*Italicized*: Non-detected concentration is above one or more identified screening levels  
**Bold**: Detected result  
 µg/kg: micrograms per kilogram  
 DTSC: California Department of Toxic Substances Control  
 HHRA: human health risk assessment  
 J: Estimated value  
 N: normal environmental sample  
 SO: soil  
 U: Compound analyzed for, but not detected above detection limit

**Table 6**  
**Individual Core PCB Aroclor Results**

Task Location ID Sample ID Sample Date Depth Sample Type Matrix Chemical	LCWA_2022 LCW-03 LCW-03-0_2-061522	LCWA_2022 LCW-03 LCW-03-2_4-061522	LCWA_2022 LCW-04 LCW-04-0_2-061522	LCWA_2022 LCW-04 LCW-04-2_4-061522	LCWA_2022 LCW-04 LCW-04-4_6-061522	ERL	ERM	DTSC HHRA Residential <sup>1</sup>
<b>Conventional Parameters (pct)</b>								
Total solids	95.1	87.2	88.7	85.7	79.9	--	--	--
<b>PCB Aroclors (µg/kg)</b>								
Aroclor 1016	5.8 U	6.3 U	6.2 U	6.4 U	6.9 U	--	--	4000
Aroclor 1221	5.8 U	6.3 U	6.2 U	6.4 U	6.9 U	--	--	200
Aroclor 1232	5.8 U	6.3 U	6.2 U	6.4 U	6.9 U	--	--	170
Aroclor 1242	5.8 U	6.3 U	6.2 U	6.4 U	6.9 U	--	--	230
Aroclor 1248	<b>23</b>	6.3 U	6.2 U	6.4 U	6.9 U	--	--	230
Aroclor 1254	5.2 U	5.7 U	5.6 U	5.8 U	6.2 U	--	--	240
Aroclor 1260	<b>22</b>	5.7 U	5.6 U	5.8 U	6.2 U	--	--	240
Aroclor 1262	5.2 U	5.7 U	5.6 U	5.8 U	6.2 U	--	--	--
Aroclor 1268	5.2 U	5.7 U	5.6 U	5.8 U	6.2 U	--	--	--
Total PCB Aroclors (U = 0 max limit)	<b>45</b>	6.3 U	6.2 U	6.4 U	6.9 U	23	180	--

Notes:

**45** Detected concentration is greater than ERL screening level

*Italicized*: Non-detected concentration is above one or more identified screening levels

**Bold**: Detected result

All nondetect results are reported at the **method detection limit**.

Total PCB Aroclors is the total of all PCB Aroclors listed in this table.

Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest method detection limit value is reported as the sum.

USEPA Stage 2A data validation was completed by Anchor QEA, LLC.

1. More conservative of cancer or noncancer endpoint used for DTSC HHRA screening levels

µg/kg: microgram per kilogram

DTSC: California Department of Toxic Substances Control

ERL: effects range low

ERM: effects range median

HHRA: human health risk assessment

J: Estimated value

pct: percent

PCB: polychlorinated biphenyl

U: Compound analyzed for, but not detected above detection limit

USEPA: U.S. Environmental Protection Agency

**Table 7**  
**Z-Layer Chemistry Results**

Task Location ID Sample ID Sample Date Depth Sample Type Matrix Chemical	LCWA_2022 LCW-02 LCW-02-Z-061522 6/15/2022 5.6–6.1 feet N SO	LCWA_2022 LCW-03 LCW-03-Z-061522 6/15/2022 3.8–4.3 feet N SO	LCWA_2022 LCW-04 LCW-04-Z-061522 6/15/2022 5.6–6.1 feet N SO	LCWA_2022 LCW-05 LCW-05-Z-061722 6/17/2022 9.2–9.7 feet N SO	LCWA_2022 LCW-07 LCW-07-Z-061722 6/17/2022 12.1–12.6 feet N SO	LCWA_2022 LCW-08 LCW-08-Z-061522 6/15/2022 6.6–7.1 feet N SO	LCWA_2022 LCW-09 LCW-09-Z-061722 6/17/2022 8.9–9.4 feet N SO	LCWA_2022 LCW-10 LCW-10-Z-061722 6/17/2022 6.3–6.8 feet N SO	LCWA_2022 LCW-12 LCW-12-Z-061522 6/16/2022 7.9–8.4 feet N SO	LCWA_2022 LCW-13 LCW-13-Z-061722 6/17/2022 9.4–9.9 feet N SO	ERL	ERM	DTSC HHRA Residential <sup>1</sup>
<b>Conventional Parameters (pct)</b>													
Total solids	73.4	83.6	74.6	86.2	82.2	80.5	70	75.4	79.3	74.5	--	--	--
<b>Metals (mg/kg)</b>													
Antimony	0.341 J	0.196 J	0.507 J	0.194 J	0.469 J	-- R	0.496 J	0.379 J	0.211 J	-- R	--	--	--
Arsenic	10.3	7.36	13.1	2.46	2.03	4.25	19.4	13.2	7.58	11.3	8.2	70	0.11
Barium	179 J	135 J	344 J	98.5 J	65.6	68.7 J	166 J	146 J	187 J	97.9 J	--	--	--
Beryllium	0.796	0.766	0.974	0.158 U	0.378	0.386	1.45	1.24	0.717	0.644	--	--	16
Cadmium	0.177 J	0.195 J	1.08	0.0972 U	0.106 U	0.147 J	0.226 J	0.260 J	0.464 J	0.114 U	1.2	9.6	--
Chromium	34.7	29.5	45.2	12.3	17.9	16.6	44.3	42.9	31.8	33.7	81	370	--
Cobalt	14.9	12.2	17.5	5.48	7.52	6.47	26.3	18.3	12.1	9.79	--	--	--
Copper	41.3	27.5	53	11	15.9	13.9	53.8	44.8	32.8	26.5	34	270	--
Lead	11.8	8.94	56.8	8.64	4.67	6.2	15.3	15.2	14.5	8.16	46.7	218	80
Mercury	0.0604 J	0.0278 J	0.0949 J	0.0558 J	0.0202 J	0.0259 J	0.125 J	0.0479 J	0.0806 J	0.0632 J	0.15	0.71	1
Molybdenum	1.77	1.71	2.97	0.442 J	1.24 U	0.607 J	3.22	2.43	1.20 J	2.64	--	--	--
Nickel	26.5	21	38.7	9.39	14.6	11.4	43.6	33.1	24.5	18.2	20.9	51.6	820
Selenium	2.47	1.88	3.44	0.627 J	0.559 J	1.05 J	3.33	2.9	1.8	1.76	--	--	--
Silver	0.426 U	0.369 U	0.432 U	0.361 U	0.394 U	0.396 U	0.436 U	0.428 U	0.398 U	0.424 U	1	3.7	--
Thallium	0.337 J	0.261 J	0.424 J	0.0831 J	0.147 J	0.178 J	0.296 J	0.416 J	0.264 J	0.399 J	--	--	--
Vanadium	67.4	57.6	84.3	22.5	33.7	34.6	81.9	81.3	57.2	57.6	--	--	--
Zinc	95	76.7	133	34	42.3	49.5	111	116	84.6	77.8	150	410	--
<b>PCB Aroclors (µg/kg)</b>													
Aroclor 1016	--	6.6 UJ	7.4 U	--	--	--	--	--	--	--	--	--	4000
Aroclor 1221	--	6.6 UJ	7.4 U	--	--	--	--	--	--	--	--	--	200
Aroclor 1232	--	6.6 UJ	7.4 U	--	--	--	--	--	--	--	--	--	170
Aroclor 1242	--	6.6 UJ	7.4 U	--	--	--	--	--	--	--	--	--	230
Aroclor 1248	--	6.6 UJ	7.4 U	--	--	--	--	--	--	--	--	--	230
Aroclor 1254	--	5.9 UJ	6.6 U	--	--	--	--	--	--	--	--	--	240
Aroclor 1260	--	5.9 UJ	6.6 U	--	--	--	--	--	--	--	--	--	240
Aroclor 1262	--	5.9 UJ	6.6 U	--	--	--	--	--	--	--	--	--	--
Aroclor 1268	--	5.9 UJ	6.6 U	--	--	--	--	--	--	--	--	--	--
Total PCB Aroclors (U = 0 max limit)	--	6.6 UJ	7.4 U	--	--	--	--	--	--	--	23	180	--

Notes:

Detected concentration is greater than ERL screening level

Detected concentration is greater than DTSC HHRA Residential cancer or noncancer screening level

*Italicized*: Non-detected concentration is above one or more identified screening levels

**Bold**: Detected result

All nondetect results are reported at the **method detection limit**.

Total PCB Aroclors is the total of all PCB Aroclors listed in this table.

Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest method detection limit value is reported as the sum.

USEPA Stage 2A data validation was completed by Anchor QEA, LLC.

1. More conservative of cancer or noncancer endpoint used for DTSC HHRA screening levels.

µg/kg: microgram per kilogram

J: Estimated value

DTSC: California Department of Toxic Substances Control

mg/kg: milligrams per kilogram

ERL: effects range low

pct: percent

ERM: effects range median

U: Compound analyzed for, but not detected above detection limit

HHRA: human health risk assessment

## Figures

---



Publish Date: 2022/09/09, 3:38 PM | User: jsfox  
 Filepath: \\orcas\GIS\Jobs\LCWA\_0090\South Los Cerritos Wetlands Restoration Project\Maps\GeotechnicalInvestigation\SAR\AQ\_Figure1\_LCWA\_VicinityMap.mxd



**Figure 1**  
**Project Site and Vicinity Map**  
 Sampling and Analysis Report  
 Southern Los Cerritos Wetlands Restoration Project



**LEGEND:**

- Project Area
- Other Delineated Areas of Contamination (Geosyntec 2017)
- Sumps and Former Landfill
- Topographic Contours (1 foot interval NAVD88)
- Jurisdictional Wetlands of the United States
- Jurisdictional Waters of the United States
- California Coastal Commission Wetlands



Publish Date: 2022/09/09, 3:40 PM | User: jsfox  
 Filepath: \\orcas\GIS\Jobs\LCWA\_0090\South Los Cerritos Wetlands Restoration Project\Maps\GeotechnicalInvestigation\SAR\AQ\_Figure2\_LCWA\_SiteMap.mxd



**Figure 2  
Site Map**

Sampling and Analysis Report  
 Southern Los Cerritos Wetlands Restoration Project

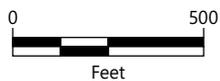


**LEGEND:**

- |                                  |  |                  |
|----------------------------------|--|------------------|
| Bioswale/Riparian Woodland       | High Salt Marsh - Salt Panne               | To Be Determined |
| Camissoniopsis Mitigation Site   | Mid Salt Marsh                             | Tidal Mesocosm   |
| Camissoniopsis Preservation Site | Raise and Re-align 1st Street on Fill Dirt | Transition Zone  |
| Existing Tidal Channel           | Restore Upland on Fill                     | Upland           |
| Flood Wall or Berm               | Spartina Salt Marsh                        | Upland on Fill   |
| High Salt Marsh                  | Subtidal Channel                           |                  |

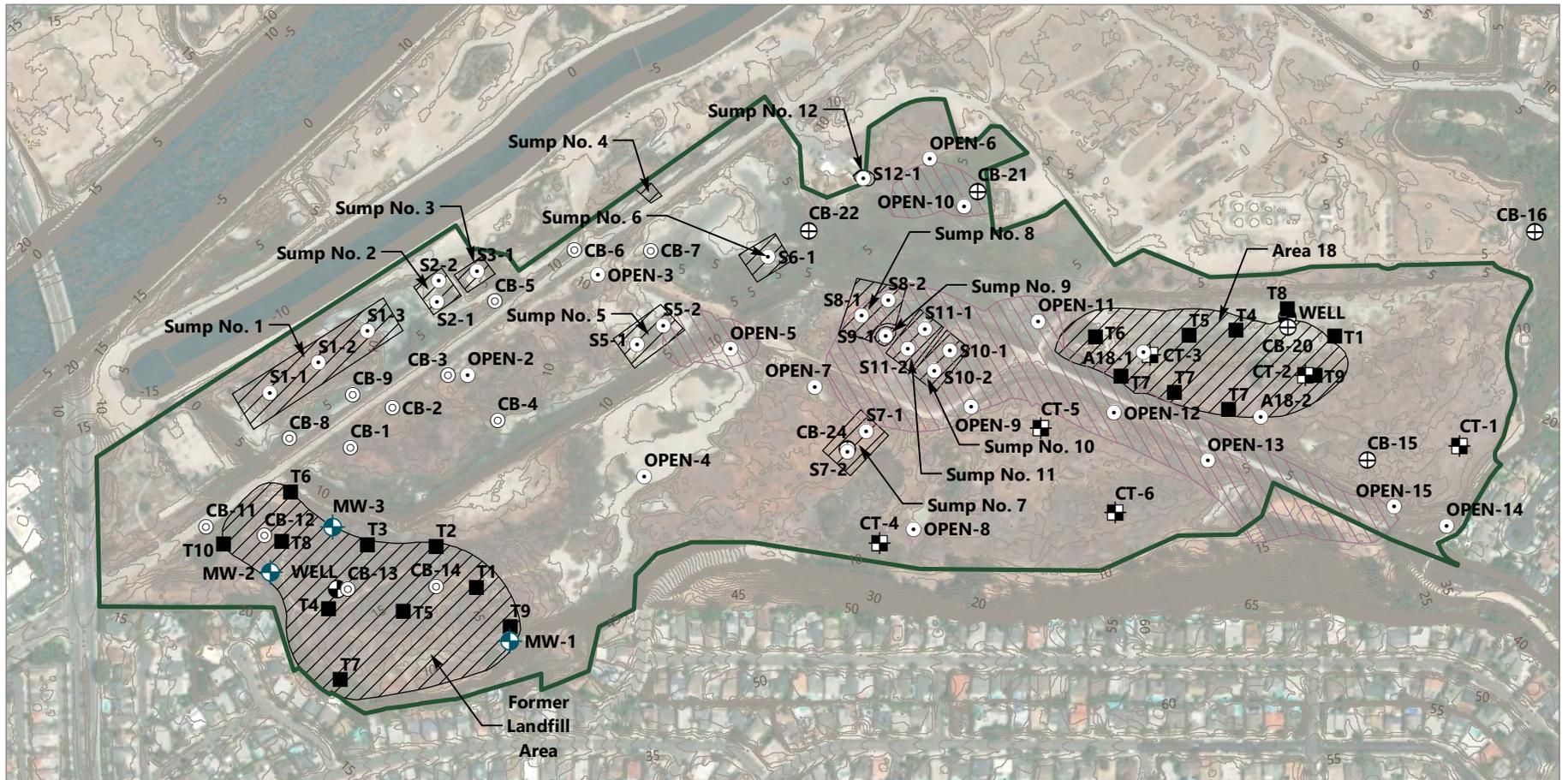
Publish Date: 2022/09/09, 3:41 PM | User: jsfox

Filepath: \\orcas\GIS\Jobs\LCWA\_0090\South Los Cerritos Wetlands Restoration Project\Maps\GeotechnicalInvestigation\SAR\AQ\_Figure3\_LCWA\_RestorationPlan.mxd



**Figure 3**  
**Los Cerritos Wetlands Habitat Restoration Plan**

Sampling and Analysis Report  
Southern Los Cerritos Wetlands Restoration Project



**LEGEND:**

- |  |   |  |
|--|---|--|
| ⊙ Soil Boring for Agronomy Study (Converse 1996)           | ⊕ Test Pit for Agronomy Study (Converse 1996) | ⊕ Monitoring Well (Anchor 2004)                            |
| ■ Trench (Geomatrix Consultants 2001)                      | ⊕ Monitoring Well (Converse 1996)             | ▭ Project Area   |
| ⊕ Groundwater Monitoring Well (Geomatrix Consultants 2001) | ○ Boring Location (Anchor 2004)               | ▨ Other Delineated Areas of Contamination (Geosyntec 2017) |
|  |   | ▨ Sumps and Former Landfill                                |
|  |   | — Topographic Contours (1 foot interval NAVD88)            |



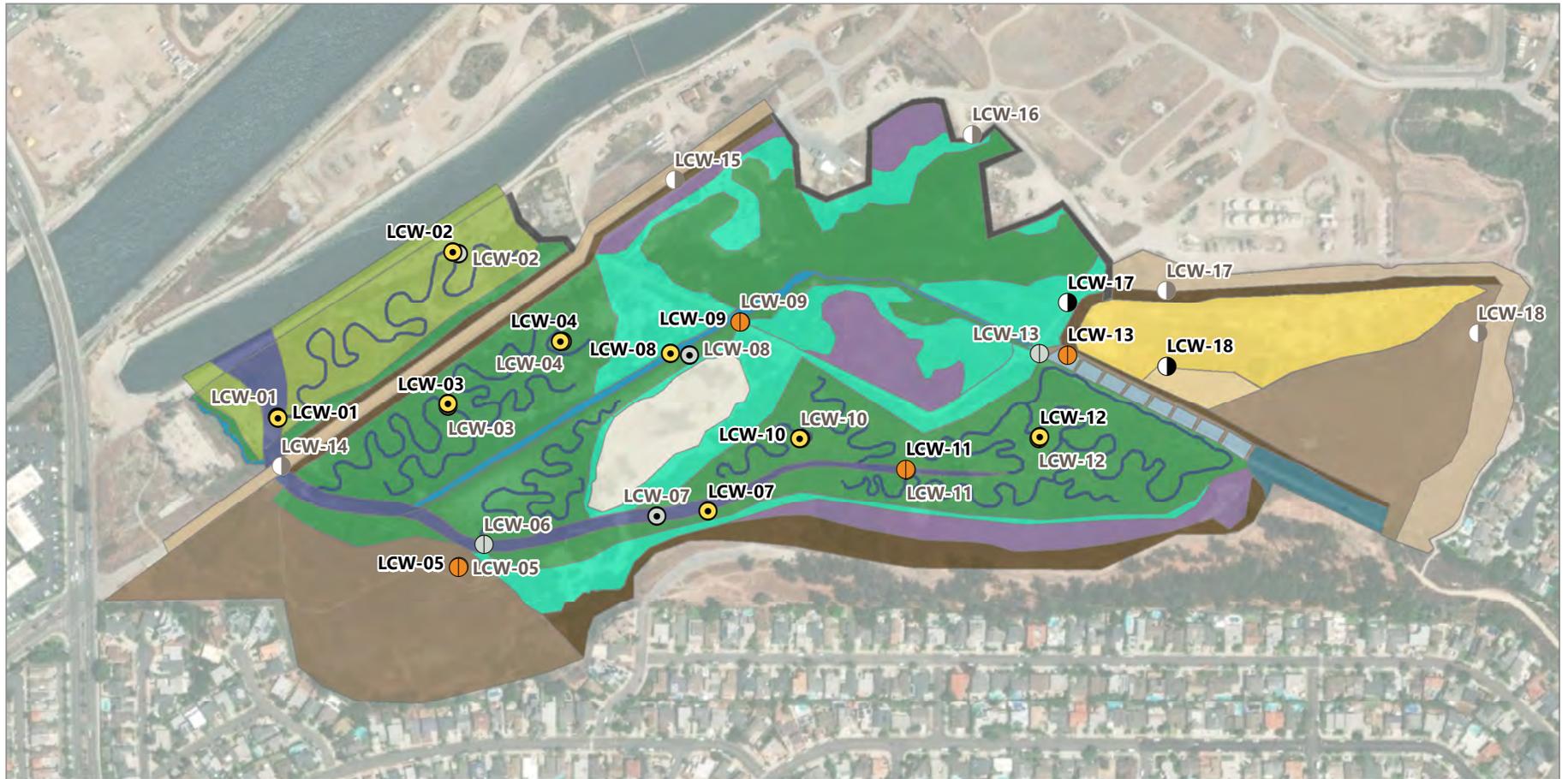
Publish Date: 2022/09/09, 3:43 PM | User: jsfox

Filepath: \\orcas\GIS\Jobs\LCWA\_0090\South Los Cerritos Wetlands Restoration Project\Maps\GeotechnicalInvestigation\SAR\AQ\_Figure4\_LCWA\_HistoricalSampleMap.mxd



**Figure 4**  
**Previously Completed Sample Locations**

Sampling and Analysis Report  
Southern Los Cerritos Wetlands Restoration Project

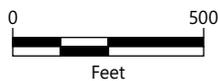


**LEGEND:**

- |   |   |   |   |
|---|---|---|---|
| <ul style="list-style-type: none"> <li>● Actual Soil Boring: Chemical Sampling Only</li> <li>● Actual Soil Boring: Geotechnical Purpose with Chemical Sampling</li> <li>● Actual Soil Boring: Geotechnical Purposes Only</li> <li>● Proposed Soil Boring: Chemical Sampling Only</li> <li>● Proposed Soil Boring: Geotechnical Purposes Only</li> <li>● Proposed Soil Boring: Geotechnical Purposes with Chemical Sampling</li> </ul> | <ul style="list-style-type: none"> <li>Bioswale/Riparian Woodland</li> <li>Camissoniopsis Mitigation Site</li> <li>Camissoniopsis Preservation Site</li> <li>Existing Tidal Channel</li> <li>Flood Wall or Berm</li> <li>High Salt Marsh</li> </ul> | <ul style="list-style-type: none"> <li>High Salt Marsh - Salt Panne</li> <li>Mid Salt Marsh</li> <li>Raise and Re-align 1st Street on Fill Dirt</li> <li>Restore Upland on Fill</li> <li>Spartina Salt Marsh</li> <li>Subtidal Channel</li> </ul> | <ul style="list-style-type: none"> <li>To Be Determined</li> <li>Tidal Mesocosm</li> <li>Transition Zone</li> <li>Upland</li> <li>Upland on Fill</li> </ul> |
|---|---|---|---|

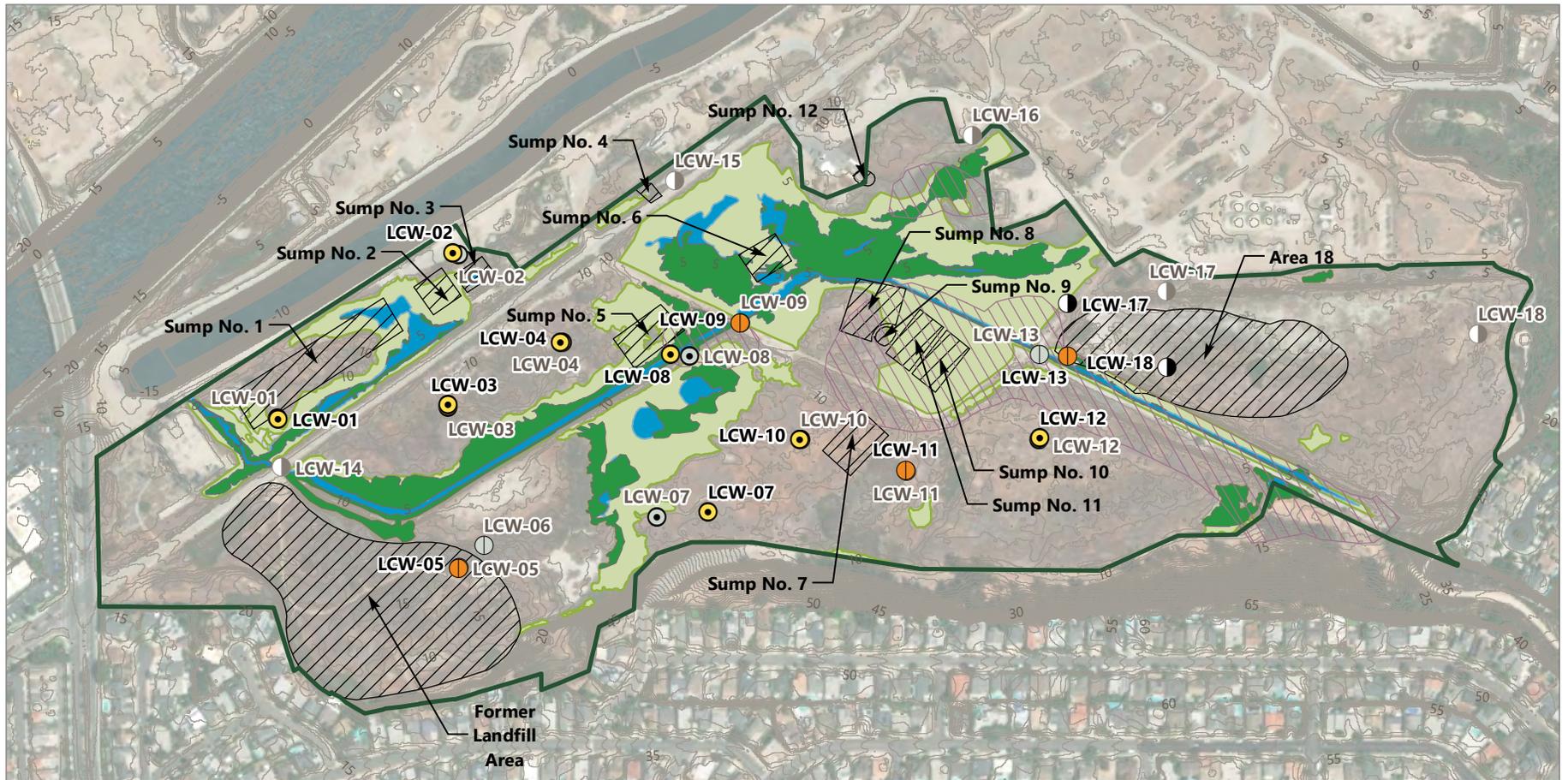
Publish Date: 2022/09/09, 3:36 PM | User: jsfox

Filepath: \\orcas\GIS\Jobs\LCWA\_0090\South Los Cerritos Wetlands Restoration Project\Maps\GeotechnicalInvestigation\SAR\AQ\_Figure5\_LCWA\_ActualSamplingLocations.mxd



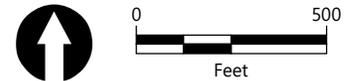
**Figure 5**  
**Proposed and Actual Sampling Locations Relative to Habitat Restoration Plan**

Sampling and Analysis Report  
 Southern Los Cerritos Wetlands Restoration Project



**LEGEND:**

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>● Actual Soil Boring: Chemical Sampling Only</li> <li>● Actual Soil Boring: Geotechnical Purpose with Chemical Sampling</li> <li>● Actual Soil Boring: Geotechnical Purposes Only</li> <li>⊙ Proposed Soil Boring: Chemical Sampling Only</li> <li>⊙ Proposed Soil Boring: Geotechnical Purposes Only</li> <li>⊙ Proposed Soil Boring: Geotechnical Purposes with Chemical Sampling</li> </ul> | <ul style="list-style-type: none"> <li>▭ Project Area</li> <li>▨ Other Delineated Areas of Contamination (Geosyntec 2017)</li> <li>▨ Sumps and Former Landfill</li> <li>— Topographic Contours (1 foot interval NAVD88)</li> <li>■ Jurisdictional Wetlands of the United States</li> <li>■ Jurisdictional Waters of the United States</li> </ul> | <ul style="list-style-type: none"> <li>■ California Coastal Commission Wetlands</li> </ul> |
|---|--|--|



Publish Date: 2022/09/13, 7:44 AM | User: jsfox

Filepath: \\orcas\GIS\Jobs\LCWA\_0090\South Los Cerritos Wetlands Restoration Project\Maps\GeotechnicalInvestigation\SAR\AQ\_Figure6\_LCWA\_Samples\_andSiteFeatures.mxd



**Figure 6**  
**Proposed and Actual Sampling Locations Relative to Existing Wetlands, Sumps, Former Landfill, and Other Areas of Contamination**  
 Sampling and Analysis Report  
 Southern Los Cerritos Wetlands Restoration Project

## Appendix A

# Watermain Rehabilitation Project Boring Locations

---

**SAMPLE/SAMPLER TYPE GRAPHICS**

	BULK SAMPLE
	CALIFORNIA SAMPLER (3 in. (76.2 mm.) outer diameter)
	GRAB SAMPLE
	STANDARD PENETRATION SPLIT SPOON SAMPLER (2 in. (50.8 mm.) outer diameter and 1-3/8 in. (34.9 mm.) inner diameter)

**GROUND WATER GRAPHICS**

	WATER LEVEL (level where first observed)
	WATER LEVEL (level after exploration completion)
	WATER LEVEL (additional levels after exploration)
	OBSERVED SEEPAGE

**NOTES**

- The report and graphics key are an integral part of these logs. All data and interpretations in this log are subject to the explanations and limitations stated in the report.
- Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual or differ from those shown.
- No warranty is provided as to the continuity of soil or rock conditions between individual sample locations.
- Logs represent general soil or rock conditions observed at the point of exploration on the date indicated.
- In general, Unified Soil Classification System designations presented on the logs were based on visual classification in the field and were modified where appropriate based on gradation and index property testing.
- Fine grained soils that plot within the hatched area on the Plasticity Chart, and coarse grained soils with between 5% and 12% passing the No. 200 sieve require dual USCS symbols, i.e., GW-GM, GP-GM, GW-GC, GP-GC, GC-GM, SW-SM, SP-SM, SW-SC, SP-SC, SC-SM.
- If sampler is not able to be driven at least 6 inches then 50/X indicates number of blows required to drive the identified sampler X inches with a 140 pound hammer falling 30 inches.

**ABBREVIATIONS**

WOH - Weight of Hammer  
WOR - Weight of Rod

**UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487)**

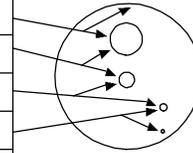
<b>GRAVELS</b> (More than half of coarse fraction is larger than the #200 sieve)	CLEAN GRAVEL WITH <5% FINES	Cu ≥ 4 and 1 ≤ Cc ≤ 3		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES	
		Cu < 4 and/or 1 > Cc > 3		GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES	
	GRAVELS WITH 5% TO 12% FINES	Cu ≥ 4 and 1 ≤ Cc ≤ 3		GW-GM	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES	
				GW-GC	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES	
		Cu < 4 and/or 1 > Cc > 3		GP-GM	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE FINES	
				GP-GC	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE CLAY FINES	
	GRAVELS WITH > 12% FINES			GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES	
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
				GC-GM	CLAYEY GRAVELS, GRAVEL-SAND-CLAY-SILT MIXTURES	
	<b>SANDS</b> (Half or more of coarse fraction is smaller than the #4 sieve)	CLEAN SANDS WITH <5% FINES	Cu ≥ 6 and 1 ≤ Cc ≤ 3		SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
			Cu < 6 and/or 1 > Cc > 3		SP	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
		SANDS WITH 5% TO 12% FINES	Cu ≥ 6 and 1 ≤ Cc ≤ 3		SW-SM	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES
				SW-SC	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES	
Cu < 6 and/or 1 > Cc > 3				SP-SM	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE FINES	
				SP-SC	POORLY GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE CLAY FINES	
SANDS WITH > 12% FINES				SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES	
				SC	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES	
				SC-SM	CLAYEY SANDS, SAND-SILT-CLAY MIXTURES	
<b>FINE GRAINED SOILS</b> (Half or more of material is smaller than the #200 sieve)		SILTS AND CLAYS (Liquid Limit less than 50)		ML	INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY	
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				CL-ML	INORGANIC CLAYS-SILTS OF LOW PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
	SILTS AND CLAYS (Liquid Limit 50 or greater)		OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY		
			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILT		
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS		
		OH	ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM-TO-HIGH PLASTICITY			

**NOTE: USE MATERIAL DESCRIPTION ON THE LOG TO DEFINE A GRAPHIC THAT MAY NOT BE PROVIDED ON THIS LEGEND.**

 <b>KLEINFELDER</b> <i>Bright People. Right Solutions.</i>	PROJECT NO.: 20221319.001A	<b>GRAPHICS KEY</b>  Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA	FIGURE
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022		A-1

**GRAIN SIZE**

DESCRIPTION	SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE
Boulders	>12 in. (304.8 mm.)	>12 in. (304.8 mm.)	Larger than basketball-sized
Cobbles	3 - 12 in. (76.2 - 304.8 mm.)	3 - 12 in. (76.2 - 304.8 mm.)	Fist-sized to basketball-sized
Gravel	coarse 3/4 - 3 in. (19 - 76.2 mm.)	3/4 - 3 in. (19 - 76.2 mm.)	Thumb-sized to fist-sized
	fine #4 - 3/4 in. (#4 - 19 mm.)	0.19 - 0.75 in. (4.8 - 19 mm.)	Pea-sized to thumb-sized
Sand	coarse #10 - #4	0.079 - 0.19 in. (2 - 4.9 mm.)	Rock salt-sized to pea-sized
	medium #40 - #10	0.017 - 0.079 in. (0.43 - 2 mm.)	Sugar-sized to rock salt-sized
	fine #200 - #40	0.0029 - 0.017 in. (0.07 - 0.43 mm.)	Flour-sized to sugar-sized
Fines	Passing #200	<0.0029 in. (<0.07 mm.)	Flour-sized and smaller



**SECONDARY CONSTITUENT**

Term of Use	AMOUNT	
	Secondary Constituent is Fine Grained	Secondary Constituent is Coarse Grained
Trace	<5%	<15%
With	≥5 to <15%	≥15 to <30%
Modifier	≥15%	≥30%

**MOISTURE CONTENT**

DESCRIPTION	FIELD TEST
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

**CEMENTATION**

DESCRIPTION	FIELD TEST
Weakly	Crumbles or breaks with handling or slight finger pressure
Moderately	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumble or break with finger pressure

**CONSISTENCY - FINE-GRAINED SOIL**

CONSISTENCY	SPT - N <sub>60</sub> (# blows / ft)	Pocket Pen (tsf)	UNCONFINED COMPRESSIVE STRENGTH (Q <sub>u</sub> )(psf)	VISUAL / MANUAL CRITERIA
Very Soft	<2	PP < 0.25	<500	Thumb will penetrate more than 1 inch (25 mm). Extrudes between fingers when squeezed.
Soft	2 - 4	0.25 ≤ PP <0.5	500 - 1000	Thumb will penetrate soil about 1 inch (25 mm). Remolded by light finger pressure.
Medium Stiff	4 - 8	0.5 ≤ PP <1	1000 - 2000	Thumb will penetrate soil about 1/4 inch (6 mm). Remolded by strong finger pressure.
Stiff	8 - 15	1 ≤ PP <2	2000 - 4000	Can be imprinted with considerable pressure from thumb.
Very Stiff	15 - 30	2 ≤ PP <4	4000 - 8000	Thumb will not indent soil but readily indented with thumbnail.
Hard	>30	4 ≤ PP	>8000	Thumbnail will not indent soil.

**REACTION WITH HYDROCHLORIC ACID**

DESCRIPTION	FIELD TEST
None	No visible reaction
Weak	Some reaction, with bubbles forming slowly
Strong	Violent reaction, with bubbles forming immediately

**APPARENT / RELATIVE DENSITY - COARSE-GRAINED SOIL**

APPARENT DENSITY	SPT-N <sub>60</sub> (# blows/ft)	MODIFIED CA SAMPLER (# blows/ft)	CALIFORNIA SAMPLER (# blows/ft)	RELATIVE DENSITY (%)
Very Loose	<4	<4	<5	0 - 15
Loose	4 - 10	5 - 12	5 - 15	15 - 35
Medium Dense	10 - 30	12 - 35	15 - 40	35 - 65
Dense	30 - 50	35 - 60	40 - 70	65 - 85
Very Dense	>50	>60	>70	85 - 100

FROM TERZAGHI AND PECK, 1948

**PLASTICITY**

DESCRIPTION	LL	PI
Non-Plastic	NP	NP
Low	< 30	< 15
Medium	30 - 50	15 - 25
High	> 50	> 25

LL is from Casagrande, 1948. PI is from Holtz, 1959.

**STRUCTURE**

DESCRIPTION	CRITERIA
Stratified	Alternating layers of varying material or color with layers at least 1/4-in. thick, note thickness.
Laminated	Alternating layers of varying material or color with the layer less than 1/4-in. thick, note thickness.
Fissured	Breaks along definite planes of fracture with little resistance to fracturing.
Slickensided	Fracture planes appear polished or glossy, sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay; note thickness.

**ANGULARITY**

DESCRIPTION	CRITERIA
Angular	Particles have sharp edges and relatively plane sides with unpolished surfaces.
Subangular	Particles are similar to angular description but have rounded edges.
Subrounded	Particles have nearly plane sides but have well-rounded corners and edges.
Rounded	Particles have smoothly curved sides and no edges.



PROJECT NO.:  
20221319.001A  
  
DRAWN BY: MAP  
CHECKED BY: JW  
DATE: 1/24/2022

**SOIL DESCRIPTION KEY**

Los Cerritos Wetlands Authority  
Watermain Rehabilitation Project  
Seal Beach, CA

FIGURE

A-2





PLOTTED: 01/24/2022 11:06 AM BY: MPalmer

<b>Date Begin - End:</b> 12/15/2021	<b>Drilling Co.-Lic.#:</b> BC2 Environmental - #1051275	<b>BORING LOG B-3</b>
<b>Logged By:</b> V. Flores	<b>Drill Crew:</b> J. Ortiz / E. Ramirez	
<b>Hor.-Vert. Datum:</b> Not Available	<b>Drilling Equipment:</b> CME-95	<b>Hammer Type - Drop:</b> 140 lb. Auto - 30 in.
<b>Plunge:</b> -90 degrees	<b>Drilling Method:</b> Hollow Stem Auger	<b>Hammer Efficiency:</b> 77.6%
<b>Weather:</b> Clear and Cold	<b>Exploration Diameter:</b> 8 in. O.D.	<b>Hammer Cal. Date:</b> 6/26/2021

Approximate Elevation (feet)	Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/Remarks	
			Lithologic Description	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in.	Recovery (NR=No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)		
			Latitude: 33.75140° Longitude: -118.10269° Approximate Ground Surface Elevation (ft.): 8.78 Surface Condition: Asphalt Pavement												
			ASPHALT: approximately 2 inches												Hand augered 5 feet below ground surface
			AGGREGATE BASE: approximately 3 inches												
			<b>Artificial Fill</b> Poorly Graded SAND with Silt (SP-SM): fine to medium-grained, olive yellow (2.5Y 6/6), moist												
			<b>Alluvium</b> Sandy Lean CLAY (CL): low to medium plasticity, olive brown (2.5Y 4/3), moist												
	5		Fat CLAY (CH): high plasticity, gray (GLEYS 1-6/N), moist, stiff	BC=3 4 5	18"	CH					98	60	33		
			olive gray (5Y 4/2), soft to medium stiff												
	0		SILT with Sand (ML): low to medium plasticity, olive gray (5Y 4/2), moist, soft to medium stiff	BC=1 2 2	16"		79.0	58.4							Tree roots
			Sandy SILT (ML): olive gray (5Y 4/2), moist, very soft												
	10			BC=1 1 1	18"										
			fine-grained sand, wet, stiff												
	-5		Poorly Graded SAND with Silt (SP-SM): fine to medium-grained, olive gray (5Y 4/2), wet, loose	BC=1 3 6	18"		43.1	79.0			53				
			SILT with Sand (ML): low to medium plasticity, olive gray (5Y 4/2), wet, soft												
	15			BC=1 1 2	18"										
			Poorly Graded SAND with Silt (SP-SM): fine to coarse-grained, olive gray (5Y 4/2), wet, loose, seashells												
	20			BC=3 4 5	18"										
	-15		The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with cement-bentonite grout on December 15, 2021.				<b>GROUNDWATER LEVEL INFORMATION:</b> ☒ Groundwater was observed at approximately 11.8 ft. below ground surface during drilling. ▼ Groundwater was observed at approximately 11.8 ft. below ground surface at the end of drilling.								
	25						<b>GENERAL NOTES:</b> The approximate latitude/longitude and elevation are estimated from the drawings provided by Stantec.								
	-20														

PROJECT NUMBER: 20221319.001A OFFICE FILTER: LAGUNA HILLS GINT TEMPLATE: E:KLF\_STANDARD\_GINT\_LIBRARY\_2022.GLB [ KLF\_BORING/TEST PIT SOIL LOG ]

 <b>KLEINFELDER</b> Bright People. Right Solutions.	PROJECT NO.: 20221319.001A	<b>BORING LOG B-3</b>	FIGURE
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022	Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA	<b>A-5</b>

PLOTTED: 01/24/2022 11:06 AM BY: MPalmer

**Date Begin - End:** 12/15/2021 **Drilling Co.-Lic.#:** BC2 Environmental - #1051275 **BORING LOG B-4**  
**Logged By:** V. Flores **Drill Crew:** J. Ortiz / E. Ramirez  
**Hor.-Vert. Datum:** Not Available **Drilling Equipment:** CME-95 **Hammer Type - Drop:** 140 lb. Auto - 30 in.  
**Plunge:** -90 degrees **Drilling Method:** Hollow Stem Auger **Hammer Efficiency:** 77.6%  
**Weather:** Clear and Cold **Exploration Diameter:** 8 in. O.D. **Hammer Cal. Date:** 6/26/2021

Approximate Elevation (feet)	Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/Remarks
			Lithologic Description	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in.	Recovery (NR=No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	
		ASPHALT: approximately 2 inches AGGREGATE BASE: approximately 3 inches Artificial Fill Poorly Graded SAND with Silt (SP-SM): fine to medium-grained, olive gray (5Y 4/2), moist, trace clay content Alluvium Sandy Lean CLAY (CL): low to medium plasticity, olive gray (5Y 4/2), moist Lean CLAY (CL): low to medium plasticity, olive gray (5Y 4/2), moist, very stiff soft to medium stiff	BC=5 8 10	12"			32.0	86.3						Hand augered 5 feet below ground surface
		SILT with Sand (ML): non-plastic, olive gray (5Y 4/2), moist, medium stiff wet, very soft, increasing fines content	BC=1 2 3	16"	ML				79	NP	NP			
		SILT (ML): olive gray (5Y 4/2), wet, medium stiff	BC=1 2 4	18"					89					
		Lean CLAY (CL): low to medium plasticity, olive gray (5Y 4/2), wet, soft to medium stiff	BC=1 1 3	16"										

The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with cement-bentonite grout on December 15, 2021.

**GROUNDWATER LEVEL INFORMATION:**  
 ☒ Groundwater was observed at approximately 12 ft. below ground surface during drilling.  
 ▼ Groundwater was observed at approximately 12 ft. below ground surface at the end of drilling.  
**GENERAL NOTES:**  
 The approximate latitude/longitude and elevation are estimated from the drawings provided by Stantec.

PROJECT NUMBER: 20221319.001A OFFICE FILTER: LAGUNA HILLS  
 GINT FILE: KLF\_gint\_master\_2022 GINT TEMPLATE: E:KLF\_STANDARD\_GINT\_LIBRARY\_2022.GLB [ KLF\_BORING/TEST PIT SOIL LOG ]

	PROJECT NO.: 20221319.001A	<b>BORING LOG B-4</b>  Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA	FIGURE
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022		A-6
			PAGE: 1 of 1

PLOTTED: 01/24/2022 11:06 AM BY: MPalmer

**Date Begin - End:** 12/16/2021 **Drilling Co.-Lic.#:** BC2 Environmental - #1051275 **BORING LOG B-5**  
**Logged By:** V. Flores **Drill Crew:** J. Ortiz / E. Ramirez  
**Hor.-Vert. Datum:** Not Available **Drilling Equipment:** CME-95 **Hammer Type - Drop:** 140 lb. Auto - 30 in.  
**Plunge:** -90 degrees **Drilling Method:** Hollow Stem Auger **Hammer Efficiency:** 77.6%  
**Weather:** Clear and Cold **Exploration Diameter:** 8 in. O.D. **Hammer Cal. Date:** 6/26/2021

Approximate Elevation (feet)	Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/Remarks	
			Lithologic Description	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in.	Recovery (NR=No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)		
			Latitude: 33.75269° Longitude: -118.10050° Approximate Ground Surface Elevation (ft.): 10.12 Surface Condition: Asphalt Pavement												
			ASPHALT: approximately 2 inches												Hand augered 5 feet below ground surface
			AGGREGATE BASE: approximately 3 inches												
			<b>Artificial Fill</b> Poorly Graded SAND with Silt (SP-SM): fine to medium-grained, olive yellow (2.5Y 6/6), moist, trace clay content						8.9						
			<b>Alluvium</b> Sandy Lean CLAY (CL): low to medium plasticity, olive gray (5Y 4/2), moist												
	5		Lean CLAY with Sand (CL): low to medium plasticity, olive gray (5Y 4/2), moist, stiff, iron oxide staining, increasing sand content	BC=2 4 5	18"										
			Sandy SILT (ML): fine-grained sand, olive gray (5Y 4/2), moist, stiff, increasing fines content	BC=3 4 10	16"		21.7	102.3		58					
			SILT (ML): olive (5Y 5/4), moist, medium stiff												
	0		very soft	BC=1 1 1	18"										
			non-plastic, olive gray (5Y 4/2), wet, stiff	BC=2 4 7	16"		27.3	97.2			NP	NP			
	-5		very soft, trace clay content	BC=1 1 1	18"										
			Lean CLAY (CL): low to medium plasticity, olive gray (5Y 4/2), wet, stiff	BC=2 5 5	18"										

The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with cement-bentonite grout on December 16, 2021.

**GROUNDWATER LEVEL INFORMATION:**  
 ☒ Groundwater was observed at approximately 11.1 ft. below ground surface during drilling.  
 ▼ Groundwater was observed at approximately 11.1 ft. below ground surface at the end of drilling.  
**GENERAL NOTES:**  
 The approximate latitude/longitude and elevation are estimated from the drawings provided by Stantec.

GINT FILE: KLF\_gint\_master\_2022 PROJECT NUMBER: 20221319.001A OFFICE FILTER: LAGUNA HILLS  
 GINT TEMPLATE: E:KLF\_STANDARD\_GINT\_LIBRARY\_2022.GLB [ KLF\_BORING/TEST PIT SOIL LOG ]

	PROJECT NO.: 20221319.001A	<b>BORING LOG B-5</b>  Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA	FIGURE  <b>A-7</b>
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022		PAGE: 1 of 1

PLOTTED: 01/24/2022 11:06 AM BY: MPalmer

<b>Date Begin - End:</b> 12/16/2021	<b>Drilling Co.-Lic.#:</b> BC2 Environmental - #1051275	<b>BORING LOG B-6</b>	
<b>Logged By:</b> V. Flores	<b>Drill Crew:</b> J. Ortiz / E. Ramirez		
<b>Hor.-Vert. Datum:</b> Not Available	<b>Drilling Equipment:</b> CME-95	<b>Hammer Type - Drop:</b> 140 lb. Auto - 30 in.	
<b>Plunge:</b> -90 degrees	<b>Drilling Method:</b> Hollow Stem Auger	<b>Hammer Efficiency:</b> 77.6%	
<b>Weather:</b> Clear and Cold	<b>Exploration Diameter:</b> 8 in. O.D.	<b>Hammer Cal. Date:</b> 6/26/2021	

Approximate Elevation (feet)	Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/Remarks
			Lithologic Description	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in.	Recovery (NR=No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	
		<p>Latitude: 33.75334° Longitude: -118.09940° Approximate Ground Surface Elevation (ft.): 9.67 Surface Condition: Asphalt Pavement</p> <p>ASPHALT: approximately 2 inches</p> <p>AGGREGATE BASE: approximately 3 inches</p> <p><b>Artificial Fill</b></p> <p>Poorly Graded SAND with Silt (SP-SM): fine to medium-grained, olive yellow (2.5Y 6/6), moist</p> <p><b>Alluvium</b></p> <p>SILT with Sand (ML): olive gray (5Y 4/2), moist, increasing fines content</p> <p>SILT (ML): olive brown (2.5Y 4/3), moist, stiff, iron oxide staining</p> <p>olive gray (5Y 4/2), medium stiff</p> <p>non-plastic, (5Y 4/2), medium stiff to stiff, iron oxide staining</p> <p>Lean CLAY (CL): low to medium plasticity, olive gray (5Y 4/2), wet, medium stiff, trace subangular gravel up to 3/4 inch</p> <p>no recovery, trace amounts of Lean CLAY (CL)</p>	<p>BC=2 4 5</p> <p>BC=1 2 3</p> <p>BC=2 5 3</p> <p>BC=1 3 5</p> <p>BC=1 2 4</p> <p>BC=1 4 5</p>	<p>14"</p> <p>18"</p> <p>14"</p> <p>18"</p> <p>14"</p> <p>NR</p>	<p>ML</p>	<p>23.0</p> <p>38.8</p>	<p>94.6</p> <p>85.5</p>	<p></p> <p>95</p>	<p></p> <p>NP</p>	<p></p> <p>NP</p>	<p>Hand augered 5 feet below ground surface</p>			
		<p>The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with cement-bentonite grout on December 16, 2021.</p>		<p><b>GROUNDWATER LEVEL INFORMATION:</b></p> <p>∇ Groundwater was observed at approximately 11.5 ft. below ground surface during drilling.</p> <p>▼ Groundwater was observed at approximately 11.5 ft. below ground surface at the end of drilling.</p> <p><b>GENERAL NOTES:</b></p> <p>The approximate latitude/longitude and elevation are estimated from the drawings provided by Stantec.</p>										

GINT FILE: KLF\_gint\_master\_2022  
GINT TEMPLATE: E:KLF\_STANDARD\_GINT\_LIBRARY\_2022.GLB [ KLF\_BORING/TEST PIT SOIL LOG ]  
PROJECT NUMBER: 20221319.001A  
OFFICE FILTER: LAGUNA HILLS

	PROJECT NO.: 20221319.001A	<b>BORING LOG B-6</b>		FIGURE
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022	Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA		<b>A-8</b>
				PAGE: 1 of 1

PLOTTED: 01/24/2022 11:06 AM BY: MPalmer

<b>Date Begin - End:</b> 12/16/2021	<b>Drilling Co.-Lic.#:</b> BC2 Environmental - #1051275	<b>BORING LOG B-7</b>
<b>Logged By:</b> V. Flores	<b>Drill Crew:</b> J. Ortiz / E. Ramirez	
<b>Hor.-Vert. Datum:</b> Not Available	<b>Drilling Equipment:</b> CME-95	<b>Hammer Type - Drop:</b> 140 lb. Auto - 30 in.
<b>Plunge:</b> -90 degrees	<b>Drilling Method:</b> Hollow Stem Auger	<b>Hammer Efficiency:</b> 77.6%
<b>Weather:</b> Clear and Cold	<b>Exploration Diameter:</b> 8 in. O.D.	<b>Hammer Cal. Date:</b> 6/26/2021

Approximate Elevation (feet)	Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/Remarks	
			Lithologic Description	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in.	Recovery (NR=No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)		
			Latitude: 33.75398° Longitude: -118.09832° Approximate Ground Surface Elevation (ft.): 9.40 Surface Condition: Asphalt Pavement												
			<b>ASPHALT:</b> approximately 2 inches <b>AGGREGATE BASE:</b> approximately 3 inches <b>Artificial Fill</b> <b>Poorly Graded SAND with Silt (SP-SM):</b> fine to medium-grained, olive yellow (2.5Y 6/6), moist, trace clay content <b>Alluvium</b> <b>Sandy Lean CLAY (CL):</b> low to medium plasticity, olive yellow (2.5Y 6/6), moist olive (5Y 5/4), medium stiff, iron oxide staining	BC=2 2 3	18"										Hand augered 5 feet below ground surface
	5		<b>Lean CLAY with Sand (CL):</b> medium plasticity, olive yellow (2.5Y 6/6), moist, medium stiff, iron oxide staining, trace clay content  olive (5Y 5/4), soft	BC=1 2 4	18"		28.4	94.4		83					
	10		<b>SILT (ML):</b> low plasticity, gray (GLEY 1-6/N), wet, stiff	BC=1 1 2	18"										
	15		<b>SILT (ML):</b> low plasticity, gray (GLEY 1-6/N), wet, stiff	BC=3 5 7	18"		34.2	88.0		88					
	20		<b>Lean CLAY (CL):</b> low to medium plasticity, gray (GLEY 1-6/N), wet, soft	BC=1 1 2	18"										
	25		<b>SILT (ML):</b> low plasticity, gray (GLEY 1-6/N), wet, stiff to very stiff	BC=4 7 8	18"										

The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with cement-bentonite grout on December 16, 2021.

**GROUNDWATER LEVEL INFORMATION:**

- ☒ Groundwater was observed at approximately 12.5 ft. below ground surface during drilling.
- ☑ Groundwater was observed at approximately 12.5 ft. below ground surface at the end of drilling.

**GENERAL NOTES:**

The approximate latitude/longitude and elevation are estimated from the drawings provided by Stantec.

OFFICE FILTER: LAGUNA HILLS

PROJECT NUMBER: 20221319.001A

GINT FILE: KLF\_gint\_master\_2022  
GINT TEMPLATE: E:KLF\_STANDARD\_GINT\_LIBRARY\_2022.GLB [ KLF\_BORING/TEST PIT SOIL LOG ]

	PROJECT NO.: 20221319.001A	<b>BORING LOG B-7</b>	<b>FIGURE</b>
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022	Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA	<b>A-9</b>

PLOTTED: 01/24/2022 11:06 AM BY: MPalmer

<b>Date Begin - End:</b> 12/16/2021	<b>Drilling Co.-Lic.#:</b> BC2 Environmental - #1051275	<b>BORING LOG B-8</b>	
<b>Logged By:</b> V. Flores	<b>Drill Crew:</b> J. Ortiz / E. Ramirez		
<b>Hor.-Vert. Datum:</b> Not Available	<b>Drilling Equipment:</b> CME-95	<b>Hammer Type - Drop:</b> 140 lb. Auto - 30 in.	
<b>Plunge:</b> -90 degrees	<b>Drilling Method:</b> Hollow Stem Auger	<b>Hammer Efficiency:</b> 77.6%	
<b>Weather:</b> Clear and Cold	<b>Exploration Diameter:</b> 8 in. O.D.	<b>Hammer Cal. Date:</b> 6/26/2021	

Approximate Elevation (feet)	Depth (feet)	Graphical Log	FIELD EXPLORATION				LABORATORY RESULTS							Additional Tests/Remarks
			Lithologic Description	Sample Type	Blow Counts(BC)= Uncorr. Blows/6 in.	Recovery (NR=No Recovery)	USCS Symbol	Water Content (%)	Dry Unit Wt. (pcf)	Passing #4 (%)	Passing #200 (%)	Liquid Limit	Plasticity Index (NP=NonPlastic)	
		ASPHALT: approximately 2 inches AGGREGATE BASE: approximately 3 inches <b>Artificial Fill</b> Poorly Graded SAND with Silt (SP-SM): fine to medium-grained, olive yellow (2.5Y 6/6), moist <b>Alluvium</b> Sandy Lean CLAY (CL): medium plasticity, olive gray (5Y 4/2), moist Fat CLAY (CH): high plasticity, olive (5Y 5/4), moist, medium stiff  iron oxide staining, trace subangular gravel up to 3/4 inch												Hand augered 5 feet below ground surface
	5			BC=4 5 9	18"		28.2	95.7						
				BC=2 2 3	18"						52	31		
	10			BC=1 2 5	18"					99				Direct Shear
				BC=2 3 4	18"									
	15			BC=1 2 3	18"					91				
	20			BC=2 4 7	18"									

The boring was terminated at approximately 21.5 ft. below ground surface. The boring was backfilled with cement-bentonite grout on December 16, 2021.

**GROUNDWATER LEVEL INFORMATION:**  
 ☒ Groundwater was observed at approximately 11.5 ft. below ground surface during drilling.  
 ▼ Groundwater was observed at approximately 11.5 ft. below ground surface at the end of drilling.  
**GENERAL NOTES:**  
 The approximate latitude/longitude and elevation are estimated from the drawings provided by Stantec.

PROJECT NUMBER: 20221319.001A  
 OFFICE FILTER: LAGUNA HILLS  
 GINT FILE: KLF\_gint\_master\_2022  
 GINT TEMPLATE: E:KLF\_STANDARD\_GINT\_LIBRARY\_2022.GLB [ KLF\_BORING/TEST PIT SOIL LOG ]

	PROJECT NO.: 20221319.001A	<b>BORING LOG B-8</b>		FIGURE
	DRAWN BY: MAP CHECKED BY: JW DATE: 1/24/2022	Los Cerritos Wetlands Authority Watermain Rehabilitation Project Seal Beach, CA		<b>A-10</b>
				PAGE: 1 of 1

# LEGEND

 PROPOSED BORING LOCATION



BORING	LATITUDE	LONGITUDE
B-1	33.749956°	-118.105010°
B-2	33.750658°	-118.103817°
B-3	33.751350°	-118.102656°
B-4	33.752006°	-118.101538°
B-5	33.752642°	-118.100460°
B-6	33.753288°	-118.099361°
B-7	33.753916°	-118.098296°
B-8	33.754557°	-118.097466°

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.



PROJECT NO. 20221319.001A  
 DRAWN: 07-07-2021  
 DRAWN BY: V. FLORES  
 CHECKED BY: J. WOON  
 FILE NAME:

## PROPOSED BORING LOCATIONS

LOS CERRITOS WETLANDS AUTHORITY WATERMAIN REHABILITATION TRENCHLESS TECHNOLOGY IMPROVEMENTS SEAL BEACH, CA

FIGURE:  
1

# Appendix B

## Boring Logs

---

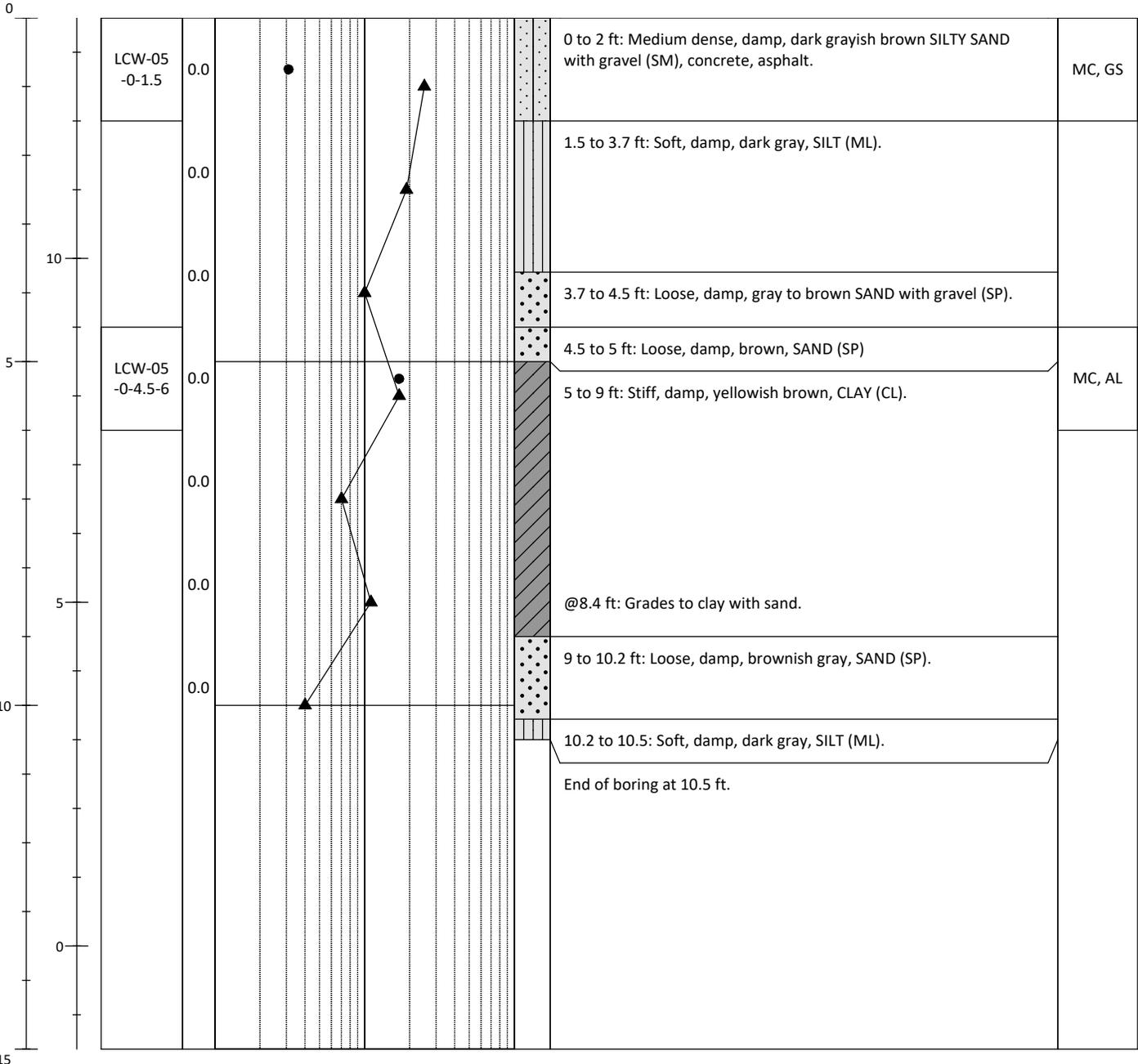
# Soil Boring Log

## LCW-05

Sheet 1 of 1

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Hollow Stem</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.74977</b>	Total Depth (ft): <b>10.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>-118.10213</b>	Observed Groundwater (ft bgs): <b>N/A</b>
Collection Date: <b>6/17/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>13.5</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>C. Osuch</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>N/A</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			



- ▲ SPT N-Value
- Moisture Content (%)
- ▼ Groundwater Level

**Notes:** 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size.  
 2) Soil samples were archived in 2 foot intervals throughout the termination depth of each boring.

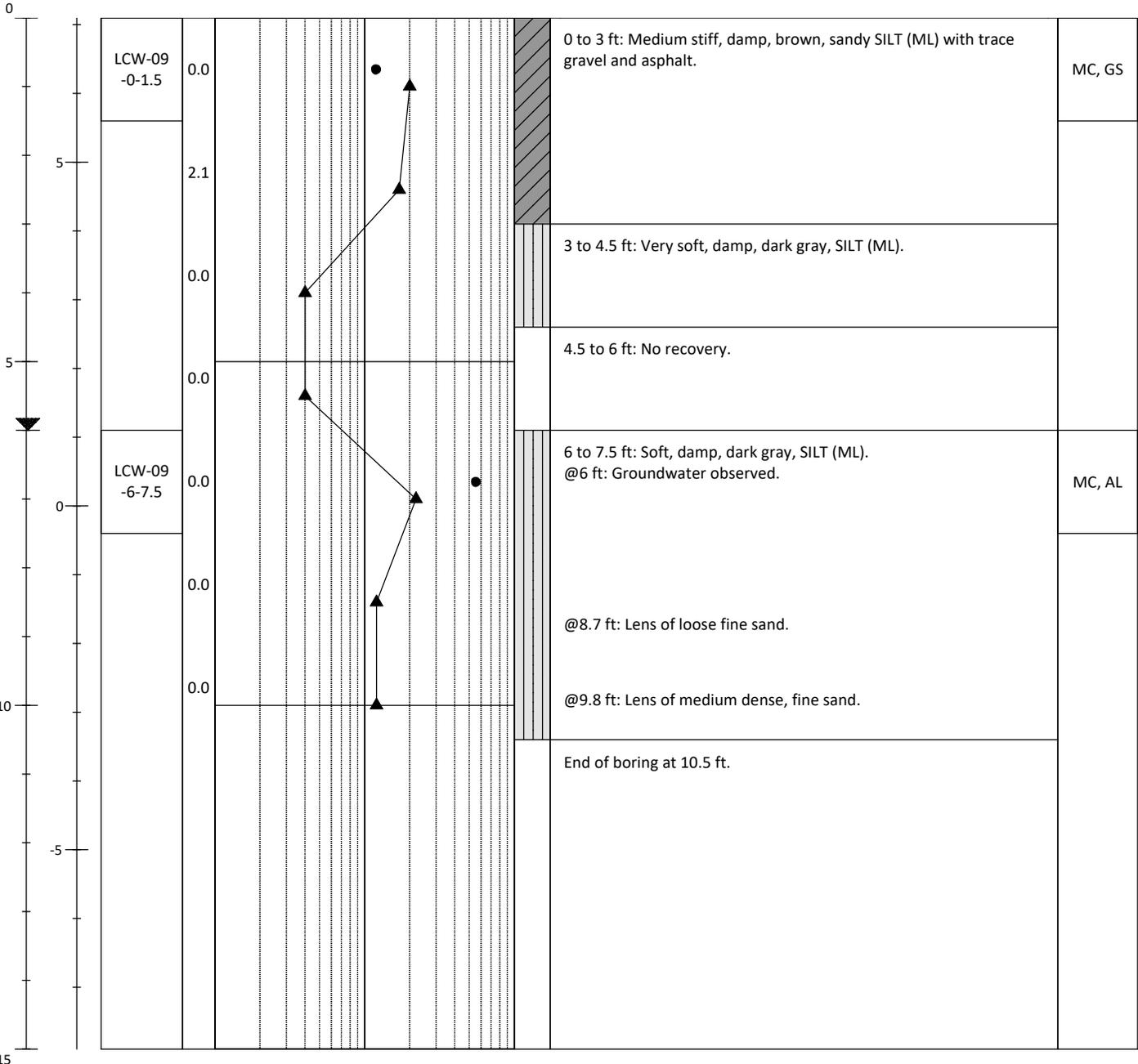
# Soil Boring Log

## LCW-09

Sheet 1 of 1

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Hollow Stem</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.75183</b>	Total Depth (ft): <b>10.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>-118.09930</b>	Observed Groundwater (ft bgs): <b>6</b>
Collection Date: <b>6/17/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>7.1</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>Chris Osuch</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>N/A</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			





1201 Third Avenue  
Suite 2600 Seattle, WA 98101

- ▲ SPT N-Value
- Moisture Content (%)
- ▼ Groundwater Level

**Notes:** 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size.  
2) Soil samples were archived in 2 foot intervals throughout the termination depth of each boring.

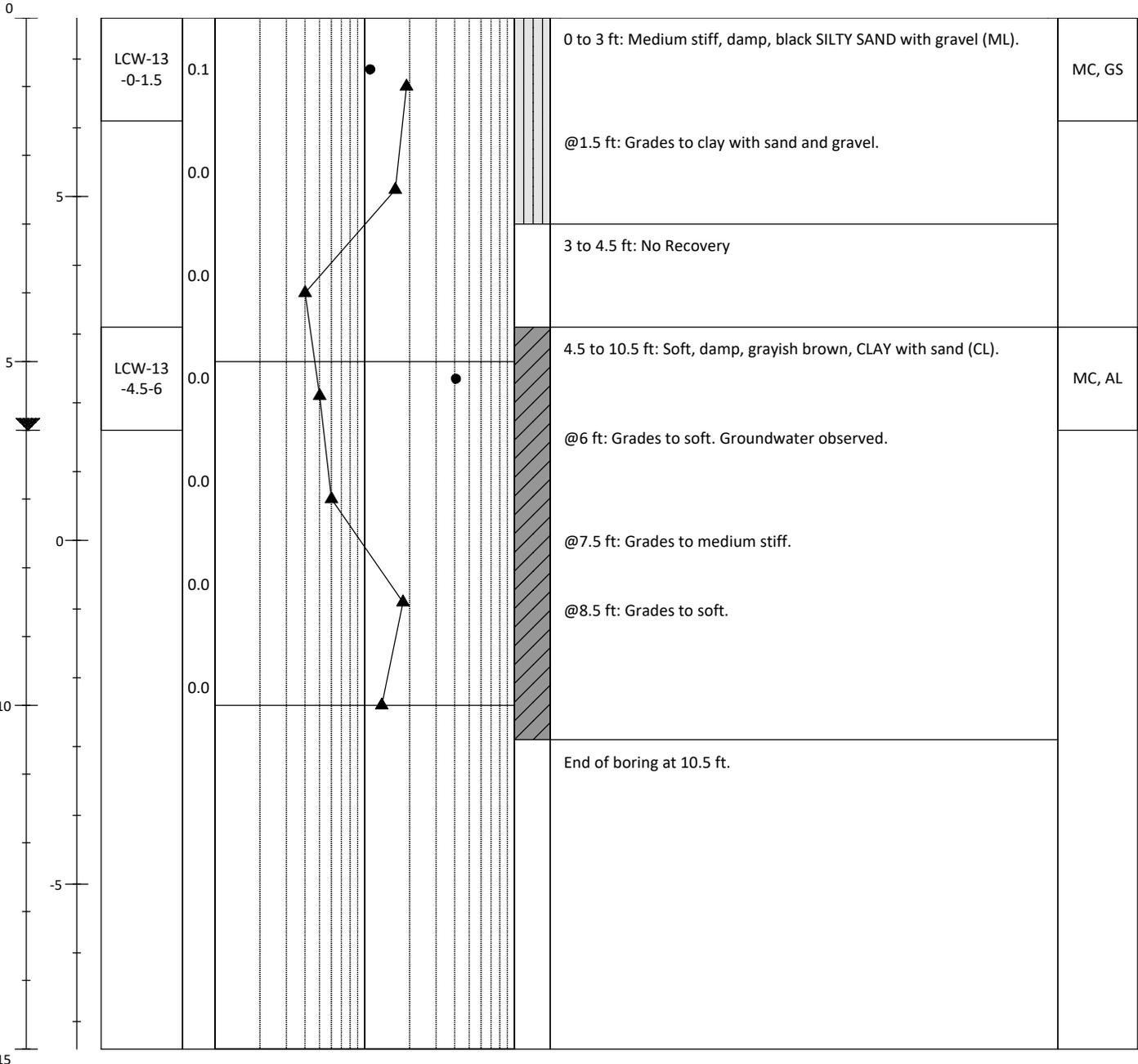
# Soil Boring Log

## LCW-13

Sheet 1 of 1

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Hollow Stem</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.75156</b>	Total Depth (ft): <b>10.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>--118.09631</b>	Observed Groundwater (ft bgs): <b>6</b>
Collection Date: <b>6/17/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>7.6</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>M. Brown</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>N/A</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			



<p>1201 Third Avenue Suite 2600 Seattle, WA 98101</p>	<ul style="list-style-type: none"> <li>▲ SPT N-Value</li> <li>● Moisture Content (%)</li> <li>▼ Groundwater Level</li> </ul>	<p><b>Notes:</b> 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size. 2) Soil samples were archived in 2 foot intervals throughout the termination depth of each boring.</p>
---	--	---

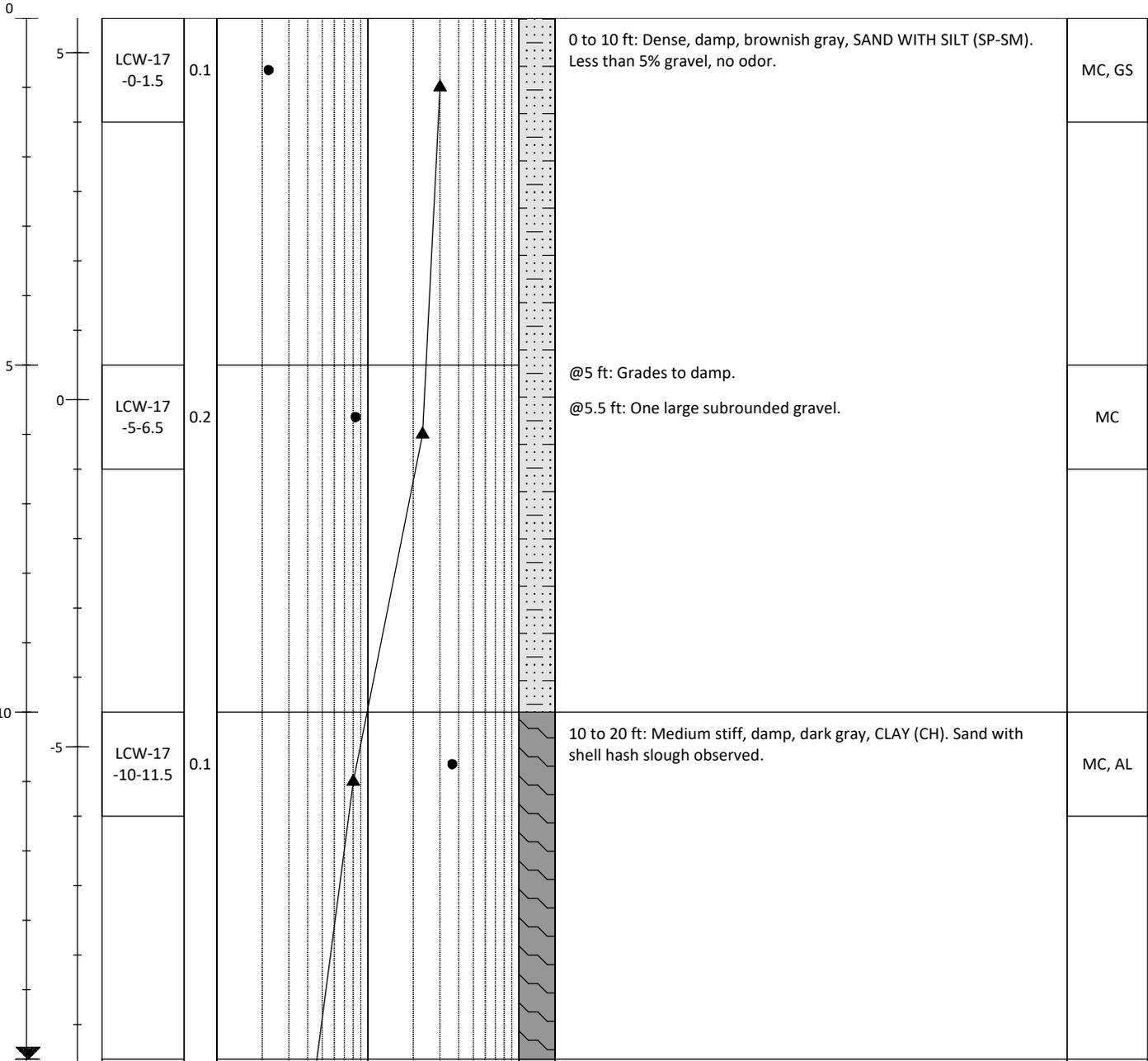
# Soil Boring Log

## LCW-17

Sheet 1 of 2

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Mud Rotary</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.75195</b>	Total Depth (ft): <b>26.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>-118.09555</b>	Observed Groundwater (ft bgs): <b>15</b>
Collection Date: <b>6/16/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>5.5</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>A. Barrett</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>N/A</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			



- ▲ SPT N-Value
- Moisture Content (%)
- ▼ Groundwater Level

**Notes:** 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size.  
 2) Soil samples were archived in 2 foot intervals throughout the termination depth of each boring.

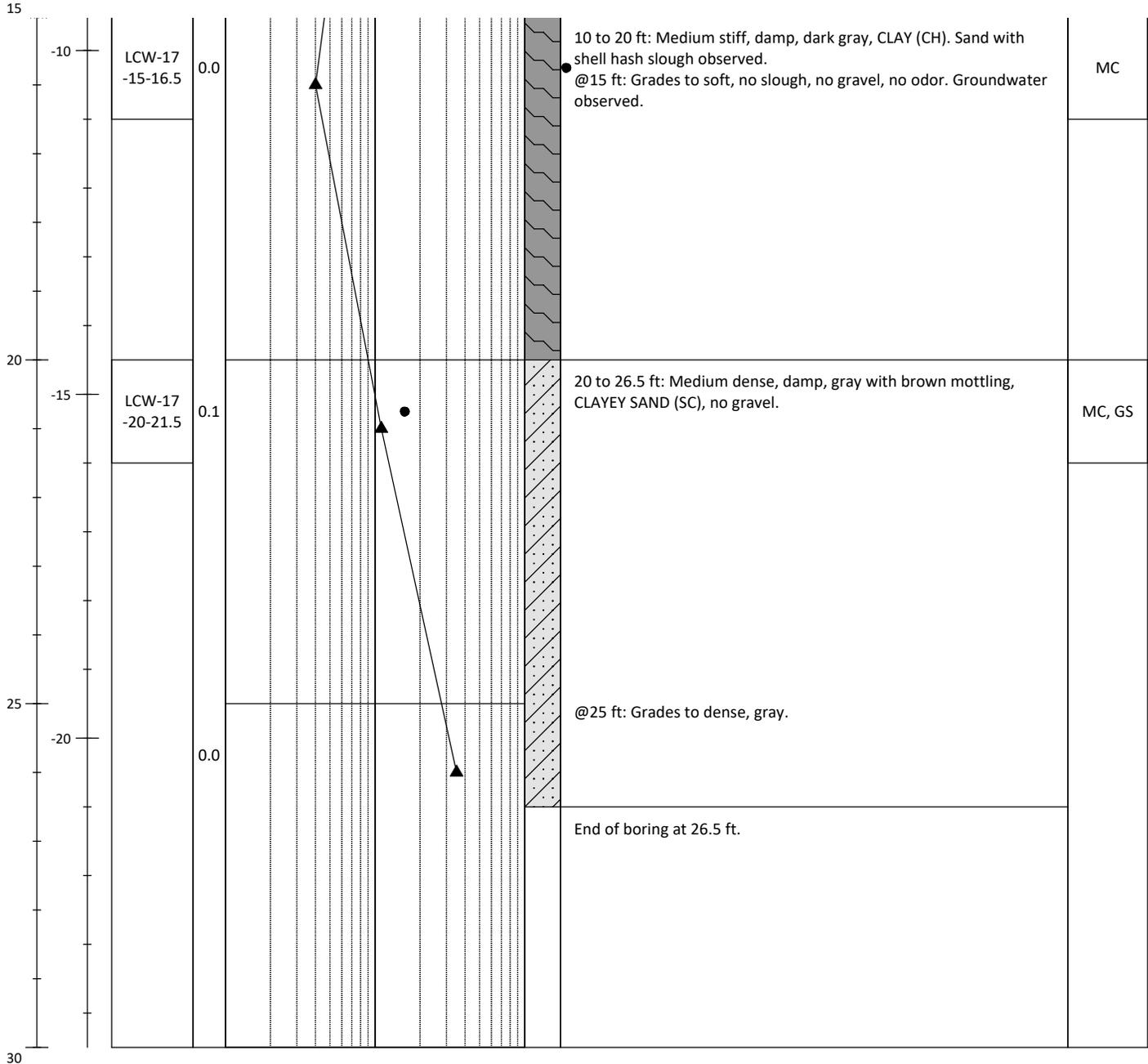
# Soil Boring Log

## LCW-17

Sheet 2 of 2

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Mud Rotary</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.75195</b>	Total Depth (ft): <b>26.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>-118.09555</b>	Observed Groundwater (ft bgs): <b>15</b>
Collection Date: <b>6/16/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>5.5</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>A. Barrett</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>N/A</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			



- ▲ SPT N-Value
- Moisture Content (%)
- ▼ Groundwater Level

**Notes:** 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size.  
 2) Soil sampels were archived in 2 foot intervals throughout the termination depth of each boring.

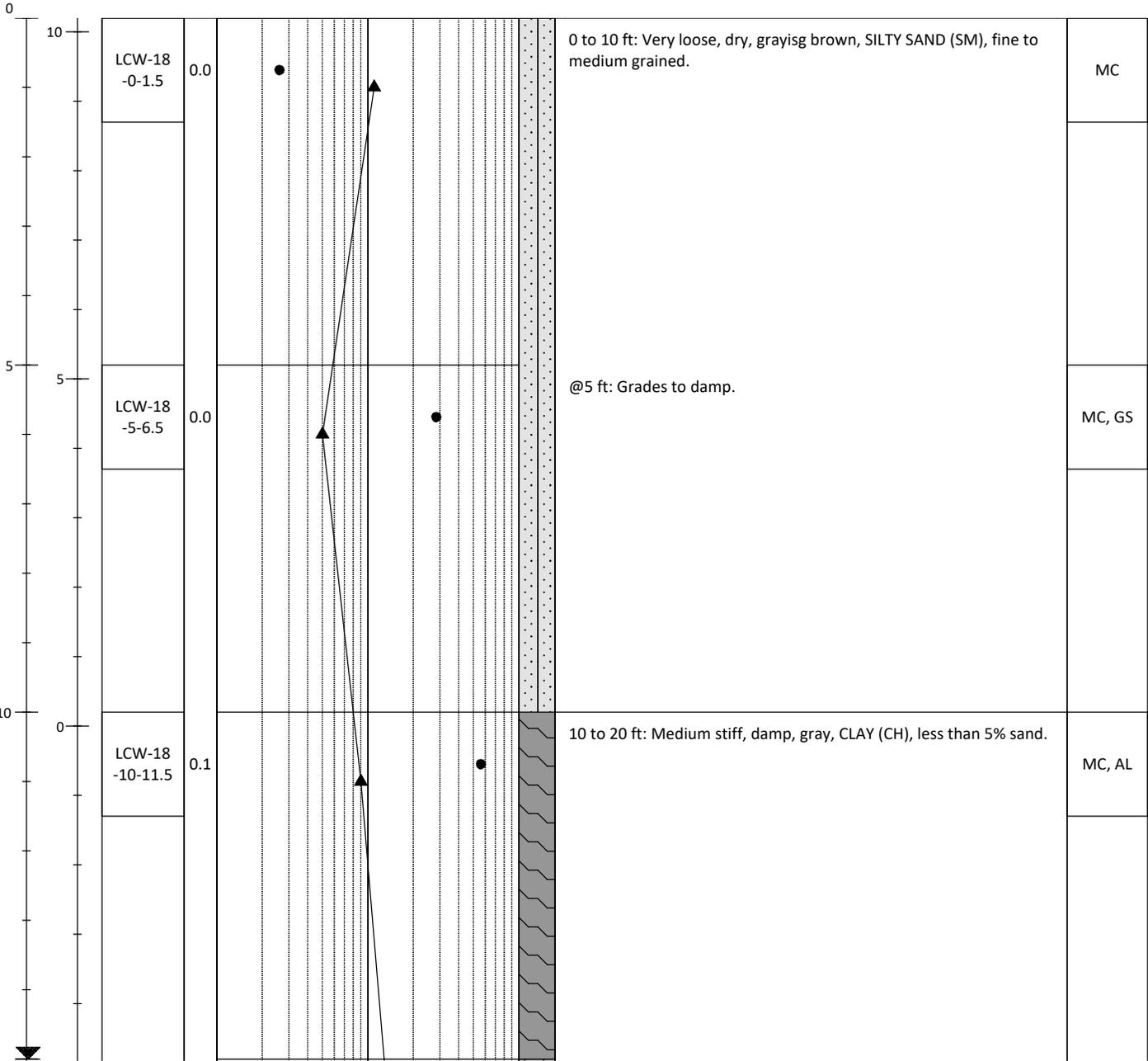
# Soil Boring Log

## LCW-18

Sheet 1 of 2

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Mud Rotary</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.75147</b>	Total Depth (ft): <b>26.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>--118.09496</b>	Observed Groundwater (ft bgs): <b>15</b>
Collection Date: <b>6/17/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>10.2</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>M. Brown</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>NA</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			



- ▲ SPT N-Value
- Moisture Content (%)
- ▼ Groundwater Level

**Notes:** 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size.  
2) Soil samples were archived in 2 foot intervals throughout the termination depth of each boring.

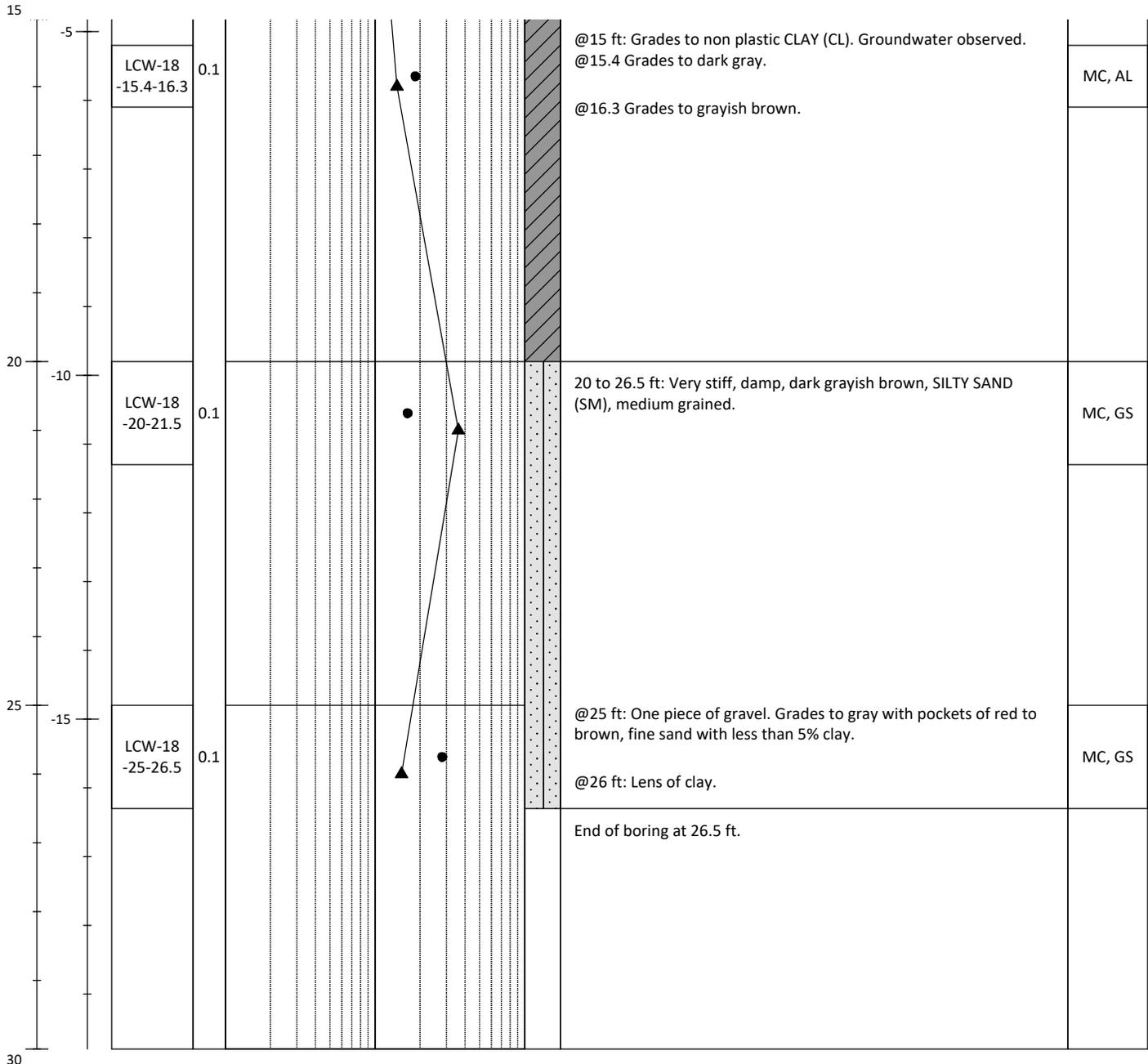
# Soil Boring Log

## LCW-18

Sheet 2 of 2

Project #: <b>Los Cerritos Wetland Restoration</b>	Project: <b>Los Cerritos Wetland Restoration</b>	Method: <b>Mud Rotary</b>
Location: <b>Seal Beach, California</b>	Northing/Latitude: <b>33.75147</b>	Total Depth (ft): <b>26.5</b>
Client: <b>Los Cerritos Wetland Authority</b>	Easting/Longitude: <b>--118.09496</b>	Observed Groundwater (ft bgs): <b>15</b>
Collection Date: <b>6/17/2022</b>	Horiz. Datum: <b>North American Datum of 1983</b>	Ground Surface Elevation (ft): <b>10.2</b>
Contractor: <b>Cascade Environmental</b>	Vert. Datum: <b>North American Vertical Datum 1988</b>	Hammer: <b>140-lb Auto Hammer</b>
Logged By: <b>M. Brown</b>	Sampler(s): <b>Split Spoon Sampler</b>	Hammer Efficiency (%): <b>NA</b>

Depth (ft)	Elevation (ft)	Samples ID's	PID	Uncorrected Standard Penetration Resistance (blows per foot) and Moisture Content (%)						Lithology	Soil Description Samples and descriptions are in recovered depths. Classification scheme: USCS	Lab Tests
				1	2	5	10	20	50			



- ▲ SPT N-Value
- Moisture Content (%)
- ▼ Groundwater Level

**Notes:** 1) MC = Moisture Content, AL = Atterberg Limits, GS = Grain Size.  
2) Soil samples were archived in 2 foot intervals throughout the termination depth of each boring.

Boring Location: N: 33.75102, E: -118.10395	Hand Auger	<u>LCW-01</u>	Sheet	<u>1</u>	of	<u>1</u>
	Job	<u>Los Cerritos Watershed Restoration Project</u>	Job No.	<u>210090-01.01</u>		
	Logged By	<u>Andrew Barrett</u>	Weather			
	Excavated By	<u>Cascade Environmental</u>	Date	<u>6/15/22</u>		
	Excavation Method	<u>Hand Auger</u>				
	Sampling Method	<u>Grab</u>				
Bottom of Test Pit		<u>10.5 feet</u>	GW (ATD)	<u>7 feet</u>		

Elevation: \_\_\_\_\_ Datum: \_\_\_\_\_

SIZE (%)			P ID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0	LCW-01/02-061522	0	0 to 4 feet: Very soft, damp, brown SILTY SANDY (SM), organics
			0.6		1	
			0.3		2	
			0.1		3	
			0.1		4	4 to 8 feet: Very soft, damp, gray Clay (CL), organics
					5	
					6	
					7	Groundwater at 7 feet
					8	8 to 10.9 feet: Very loose, wet, gray SAND (SP), no organics
					9	
					10	
				11	End of boring at 10.5 feet	
				12		
				13		
				14		
				15		
				16		
				17		
				18		
				19		
				20		

Notes: Soil samples archived at 2 foot intervals throughout hang auger, Z-layer sampled.  
Hole diameter of 3 inches  
0800 Start



Boring Location: N: 33.75242, E: -118.10219		Hand Auger <u>LCW-02</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Andrew Barrett</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/15/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>6.1 feet</u>	GW (ATD)
Elevation: <u>12 feet</u>		Datum: _____	

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0	LCW-01/02 -061522	0	0 to 3 feet: Very loose, dry, brown, SAND with gravel (SP)
			0.2	LCW-01/02 -061522	1	
			0.1		2	
			0		3	3 to 6 feet: very soft, damp, brown, CLAY (CL)
					4	
					5	
					6	End of boring at 6.1 feet
					7	
					8	
					9	
					10	

Notes: Hole diameter of 3 inches  
 No geotech samples just visual class  
 1100 Start



Boring Location: N: 33.75114, E: -118.10224		Hand Auger <u>LCW-03</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Andrew Barrett</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/15/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>4.3 feet</u>	GW (ATD)
Elevation: _____ Datum: _____			

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0	LCW-03/04-061522	0	0 to 2.5 feet: Very loose, dry, brown, SANDY SILT (ML), trace gravel
			0		2.5 to 4.3: Very soft, damp, gray, CLAY (CL)	
			0.1		4	End of boring at 4.3 feet
					5	
					6	
					7	
					8	
					9	
					10	

Notes: Hole diameter of 3 inches  
0915 Start



Boring Location: N: 33.75167, E: -118.10111	Hand Auger	LCW-04	Sheet	1 of 1
	Job	Los Cerritos Watershed Restoration Project	Job No.	210090-01.01
	Logged By	Andrew Barrett	Weather	
	Excavated By	Cascade Environmental	Date	6/15/22
	Excavation Method	Hand Auger		
	Sampling Method	Grab		
Bottom of Test Pit		6.1 feet	GW (ATD)	

Elevation: Datum:

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0.3	LCW-03/04 -061522	0	0 to 2 feet: Very soft, loose, gray, dry, SANDY SILT (ML)
				LCW-04 -061522	1	
			0		2	2 to 4 feet: Very soft, loose, gray, dry, SILTY CLAYEY SAND (SC-SM)
					3	
					4	4 to 6.1 feet: Very soft, gray, damp, CLAY (CL)
					5	
					6	End of boring at 6.1 feet
					7	
					8	
					9	
					10	

Notes: Hole diameter of 3 inches  
1015 Start



Boring Location:				Hand Auger <u>LCW-05</u>	Sheet <u>1 of 1</u>
				Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
				Logged By <u>Chris Osuch</u>	Weather _____
				Excavated By <u>Cascade Environmental</u>	Date <u>6/17/22</u>
				Excavation Method <u>Hand Auger</u>	
				Sampling Method <u>Grab</u>	
				Bottom of Test Pit <u>1.3 feet</u>	GW (ATD)
Elevation:		Datum:			
SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY
G	S	F			
Max.	Range	Att. Limits			
				LCW-05-061722	0 to 1.3 feet: Dense, dry, gray, SILTY SAND (SM) with concrete gravel and asphalt
					1 End of boring at 1.3 feet
					2
					3
					4
					5
					6
					7
					8
					9
					10

Notes: Hole diameter of 3 inches  
 1320 Start  
 Att. 1 Refusal at 1.3', Offset 5", Att 2. Refusal at 1.2', Offset another 5", Refusal at 0.6'



Boring Location:		Hand Auger <u>LCW-06</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Chris Osuch</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/17/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>1.7 feet</u>	GW (ATD)
Elevation: _____		Datum: _____	

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
					0	0 to 1.7 feet: Dense, dry, brown, SAND (SP) with concrete gravel and asphalt
					1	
					2	End of boring at 1.7 feet
					3	
					4	
					5	
					6	
					7	
					8	
					9	
					10	

Notes: Hole diameter of 3 inches  
 1400 Start  
 Att 1. Refusal at 0.6', Offset 5", Att. 2 Refusal at 0.5', Att. 3 Refusal at 1.7'



Boring Location: N: 33.75024, E: -118.09962		Hand Auger <u>LCW-07</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Chris Osuch</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/17/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>12.6 feet</u>	GW (ATD) <u>10 feet</u>
Elevation: _____ Datum: _____			

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
				LCW-07-061722	0	0 to 2 feet: Very loose, dry, brown, SAND (SP), trace silt
			0		2	2 to 9 feet: Very soft, damp, reddish brown, fine, sandy CLAY (CL)
					4	@4 feet: Grades to medium stiff
			0		9	9 to 10 feet: Soft to medium stiff, damp, reddish brown, Clay with sand (CL), 10% sand.
					10	@10 feet: Groundwater
			0		10	10 to 12.6 feet: Loose, wet, gray, SAND (SP), trace clay
					13	End of boring at 12.6 feet
			0		14	
					15	
					16	
					17	
					18	
					19	
					20	

Notes: Hole diameter of 3 inches  
1018 Start



Boring Location: N: 33.75157, E: -118.09981		Hand Auger <u>LCW-08</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Andrew Barrett</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/15/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>7.1 feet</u>	GW (ATD)
Elevation: _____ Datum: _____			

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0.2	LCW-08/09-061722	0	0 to 2.5 feet: Very loose, dry, olive brown, SANDY SILT (ML), trace gravel
			0.1		2	2.5 to 7.1 feet: Very soft, damp, brown, CLAY with sand (CL)
			0		3	
			0		4	
			0		5	
			0		6	
			0		7	End of boring at 7.1 feet
					8	
					9	
					10	

Notes: Hole diameter of 3 inches  
1200 Start, 1240 Finish



Boring Location: N: 33.75085, E: -118.09870	Hand Auger	<u>LCW-10</u>	Sheet	<u>1 of 1</u>
	Job	<u>Los Cerritos Watershed Restoration Project</u>	Job No.	<u>210090-01.01</u>
	Logged By	<u>Chris Osuch</u>	Weather	
	Excavated By	<u>Cascade Environmental</u>	Date	<u>6/17/22</u>
	Excavation Method	<u>Hand Auger</u>		
	Sampling Method	<u>Grab</u>		
Bottom of Test Pit		<u>6.8 feet</u>	GW (ATD)	

Elevation: Datum:

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
				LCW-10/11-061722	0	0 to 3.5 feet: Very loose, dry, brown, SAND (SP), trace silt
					1	
					2	@ 2 feet: Grades to damp
					3	
					4	3.5 to 6.8 feet: Very soft, damp, brown CLAY (CL)
					5	
					6	
					7	End of boring at 6.8 feet
					8	
					9	
					10	

Notes: Hole diameter of 3 inches  
0830 Start



Boring Location: N: 33.75060, E: -118.09763		Hand Auger <u>LCW-11</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Andrew Barrett</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/16/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>12 feet</u>	GW (ATD) <u>9.5 feet</u>
Elevation: _____		Datum: _____	

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0.5	LCW-11 -0-2	0	0 to 5.5 feet: Very loose, dry, brown, SILT with sand (ML)
				LCW-10/11 -061722	1	
				LCW-11 -061722	2	
			0.3	LCW-11 -4-6	3	
					4	
					5	
					6	5.5 to 12 feet Very soft, damp, gray CLAY (CL), trace sand
					7	@6 feet: Grades to no sand
			0.2		8	
					9	@9.5 feet: Groundwater
					10	
					11	
			0.1		12	End of boring at 12 feet
					13	
					14	
					15	
			0		16	
					17	
					18	
					19	
					20	

Notes: Hole diameter of 3 inches  
1245 Start



Boring Location: N: 33.75087, E: -118.09628		Hand Auger <u>LCW-12</u>	Sheet <u>1 of 1</u>
		Job <u>Los Cerritos Watershed Restoration Project</u>	Job No. <u>210090-01.01</u>
		Logged By <u>Andrew Barrett</u>	Weather _____
		Excavated By <u>Cascade Environmental</u>	Date <u>6/16/22</u>
		Excavation Method <u>Hand Auger</u>	
		Sampling Method <u>Grab</u>	
		Bottom of Test Pit <u>8.4 feet</u>	GW (ATD)
Elevation: _____ Datum: _____			

SIZE (%)			PID or other	SAMPLE ID	SAMPLE RECOVERY	DESCRIPTION: Den., moist., color, minor, MAJOR CONSTITUENT, NON-SOIL SUBSTANCES: Odor, staining, sheen, scrag, slag, etc.
G	S	F				
Max.	Range	Att. Limits				
			0.1	LCW-12-061722	0	0 to 8.4 feet: Very soft, damp, dark gray, gravelly CLAY with sand (CL).
			0.1	LCW-12/13-061722	1	
			0		2	
			0.1		3	
					4	4 to 8.4 feet: Very soft, damp, gray, sandy CLAY (CL), <15% sand
					5	
					6	@6 feet: trace gravel
					7	
					8	
						End of boring at 8.4 feet
					9	
					10	

Notes: Hole diameter of 3 inches  
1145 Start



# Appendix C

## Sample Photographs

---

## Appendix C: Sample Photographs



LCW-01



LCW-02



LCW-03



LCW-04



LCW-05 (1 of 7)



LCW-05 (2 of 7)



LCW-05 (3 of 7)



LCW-05 (4 of 7)



LCW-05 (5 of 7)



LCW-05 (6 of 7)



LCW-05 (7 of 7)



LCW-07 (1 of 4)



LCW-07 (2 of 4)



LCW-07 (3 of 4)



LCW-07 (4 of 4)



LCW-08



LCW-09 (1 of 6)



LCW-09 (2 of 6)



LCW-09 (3 of 6)



LCW-09 (4 of 6)



LCW-09 (5 of 6)



LCW-09 (6 of 6)



LCW-10 (1 of 2)



LCW-10 (2 of 2)



LCW-11



LCW-13 (1 of 7)



LCW-13 (2 of 7)



LCW-13 (3 of 7)



LCW-13 (4 of 7)



LCW-13 (5 of 7)



LCW-13 (6 of 7)



LCW-13 (7 of 7)



LCW-17 (1 of 6)



LCW-17 (2 of 6)



LCW-17 (3 of 6)



LCW-17 (4 of 6)



LCW-17 (5 of 6)



LCW-17 (6 of 6)



LCW-18 (1 of 5)



LCW-18 (2 of 5)



LCW-18 (3 of 5)



LCW-18 (4 of 5)



LCW-18 (5 of 5)



## Appendix D

### Chemistry Laboratory Reports

---

## ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-100189-1

Client Project/Site: Los Cerritos Wetlands Restoration Project

**For:**

Anchor QEA LLC  
9700 Research Drive  
Irvine, California 92618

Attn: Chris Osuch



Authorized for release by:

7/7/2022 1:22:42 PM

Kathleen Burney, Project Mgmt. Assistant  
[Kathleen.Burney@et.eurofinsus.com](mailto:Kathleen.Burney@et.eurofinsus.com)

Designee for

Lori Thompson, Project Manager I  
(657)212-3035  
[Lori.Thompson@et.eurofinsus.com](mailto:Lori.Thompson@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	5
Detection Summary . . . . .	7
Client Sample Results . . . . .	13
Surrogate Summary . . . . .	48
QC Sample Results . . . . .	52
QC Association Summary . . . . .	83
Lab Chronicle . . . . .	89
Certification Summary . . . . .	96
Method Summary . . . . .	97
Sample Summary . . . . .	98
Chain of Custody . . . . .	99
Receipt Checklists . . . . .	102

# Definitions/Glossary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
me	LCS Recovery is within Marginal Exceedance (ME) control limit range ( $\pm 4$ SD from the mean).

### GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
$\alpha$	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

# Definitions/Glossary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Case Narrative

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Job ID: 570-100189-1

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-100189-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/17/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.7° C.

#### GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-243789. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 570-243789 recovered outside control limits for the following analytes: Vinyl chloride, Chloromethane, Ethanol and Chloroethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The following sample was diluted due to the nature of the sample matrix: LCW-12-061622 (570-100189-12). Elevated reporting limits (RLs) are provided.

Method 8260B: The laboratory control sample (LCS) for analytical batch 570-244174 recovered outside control limit for the following analyte: Trichlorofluoromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The following analyte recovered outside control limits for the LCS associated with analytical batch 570-244174: Chloroethane. This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-244174. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 8260B: The laboratory control sample duplicate (LCSD) for analytical batch 570-244174 recovered outside control limits for the following analytes: Vinyl chloride, Chloroethane, Chloromethane, Bromomethane and Trichlorofluoromethane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 8270C SIM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 570-244076 and analytical batch 570-246665 were outside control limits. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) were within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method 8081A: The continuing calibration verification (CCV) associated with batch 570-245037 recovered above the upper control limit for Endrin. Non-detections of the affected analyte are reported. Any detections are considered estimated.

Method 8081A: The laboratory control sample duplicate (LCSD) for preparation batch 570-244075 and analytical batch 570-245037 recovered outside control limits for the following analyte: Methoxychlor. The analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

# Case Narrative

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

---

## Job ID: 570-100189-1 (Continued)

---

### Laboratory: Eurofins Calscience (Continued)

Method 8081A: The laboratory control sample duplicate (LCSD) for preparation batch 570-244075 and analytical batch 570-245099 recovered outside control limits for the following analyte: Methoxychlor. The analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8081A: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 570-244075 and analytical batch 570-245099 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentrations of several compounds in the MS/MSD were above the instrument calibration range. The data have been reported and qualified.

Method 8081A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-244075 and analytical batch 570-245099 were outside control limits. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) were within acceptance limits.

Method 8081A: Surrogate recovery for the following sample was outside control limits: LCW-08/09-061722 (570-100189-5 MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Metals

Method 6020: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: LCW-01/02-061522 (570-100189-1), LCW-03/04-061522 (570-100189-2), LCW-05-061722 (570-100189-3), LCW-07-061722 (570-100189-4), LCW-08/09-061722 (570-100189-5) and LCW-10/11-061722 (570-100189-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### General Chemistry

Method 9060A: The method blank for analytical batch 580-395749 contained TOC above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RRL); therefore, re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-01/02-061522**

**Lab Sample ID: 570-100189-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	3.5	J	6.2	2.6	ug/Kg	1	✳	8270C SIM	Total/NA
Anthracene	29		6.2	2.4	ug/Kg	1	✳	8270C SIM	Total/NA
Benzo[a]anthracene	8.1		6.2	2.8	ug/Kg	1	✳	8270C SIM	Total/NA
Benzo[a]pyrene	13		6.2	3.7	ug/Kg	1	✳	8270C SIM	Total/NA
Benzo[e]pyrene	13		6.2	1.6	ug/Kg	1	✳	8270C SIM	Total/NA
Chrysene	14		6.2	2.1	ug/Kg	1	✳	8270C SIM	Total/NA
Dibenz(a,h)anthracene	2.8	J	6.2	2.4	ug/Kg	1	✳	8270C SIM	Total/NA
Fluoranthene	18		6.2	3.5	ug/Kg	1	✳	8270C SIM	Total/NA
Perylene	7.8		6.2	3.4	ug/Kg	1	✳	8270C SIM	Total/NA
Phenanthrene	10		6.2	2.7	ug/Kg	1	✳	8270C SIM	Total/NA
Pyrene	19		6.2	4.0	ug/Kg	1	✳	8270C SIM	Total/NA
C6-C44	21		6.2	4.8	mg/Kg	1	✳	8015B	Total/NA
4,4'-DDD	1.2	J	1.3	0.63	ug/Kg	1	✳	8081A	Total/NA
Antimony	0.510	J	2.49	0.150	mg/Kg	20	✳	6020	Total/NA
Arsenic	9.75		1.24	0.372	mg/Kg	20	✳	6020	Total/NA
Barium	180		1.24	0.114	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.219	J	1.24	0.108	mg/Kg	20	✳	6020	Total/NA
Cobalt	15.7		1.24	0.183	mg/Kg	20	✳	6020	Total/NA
Lead	12.6		1.24	0.133	mg/Kg	20	✳	6020	Total/NA
Nickel	27.1		1.24	0.114	mg/Kg	20	✳	6020	Total/NA
Thallium	0.216	J	1.24	0.133	mg/Kg	20	✳	6020	Total/NA
Vanadium	60.7		2.49	0.134	mg/Kg	20	✳	6020	Total/NA
Chromium - DL	29.5		12.4	1.86	mg/Kg	100	✳	6020	Total/NA
Copper - DL	35.6		6.22	0.653	mg/Kg	100	✳	6020	Total/NA
Molybdenum - DL	0.928	J	6.22	0.659	mg/Kg	100	✳	6020	Total/NA
Zinc - DL	84.6		31.1	5.70	mg/Kg	100	✳	6020	Total/NA
Mercury	0.0705	J	0.109	0.0177	mg/Kg	1	✳	7471A	Total/NA
Total Organic Carbon - Quad	0.790	B	0.251	0.0121	%	1	✳	9060A	Total/NA

**Client Sample ID: LCW-03/04-061522**

**Lab Sample ID: 570-100189-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	2.6	J	5.7	2.6	ug/Kg	1	✳	8270C SIM	Total/NA
Benzo[e]pyrene	4.5	J	5.7	1.4	ug/Kg	1	✳	8270C SIM	Total/NA
Chrysene	4.0	J	5.7	1.9	ug/Kg	1	✳	8270C SIM	Total/NA
Fluoranthene	4.4	J	5.7	3.2	ug/Kg	1	✳	8270C SIM	Total/NA
Perylene	12		5.7	3.1	ug/Kg	1	✳	8270C SIM	Total/NA
Phenanthrene	2.6	J	5.7	2.5	ug/Kg	1	✳	8270C SIM	Total/NA
Pyrene	4.7	J	5.7	3.7	ug/Kg	1	✳	8270C SIM	Total/NA
C23-C24	7.0		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
C25-C28	22		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
C29-C32	34		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
C33-C36	30		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
C37-C40	29		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
C41-C44	12		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
C6-C44	140		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
Diesel Range Organics [C10-C28]	33		5.7	4.4	mg/Kg	1	✳	8015B	Total/NA
cis-Nonachlor	2.9		1.1	0.054	ug/Kg	1	✳	8081A	Total/NA
Aroclor-1254	39		11	5.7	ug/Kg	1	✳	8082	Total/NA
Antimony	0.255	J	2.29	0.138	mg/Kg	20	✳	6020	Total/NA
Arsenic	10.8		1.14	0.342	mg/Kg	20	✳	6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-03/04-061522 (Continued)**

**Lab Sample ID: 570-100189-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	372		1.14	0.105	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.218	J	1.14	0.0995	mg/Kg	20	✳	6020	Total/NA
Cobalt	12.4		1.14	0.168	mg/Kg	20	✳	6020	Total/NA
Lead	16.2		1.14	0.122	mg/Kg	20	✳	6020	Total/NA
Nickel	24.6		1.14	0.105	mg/Kg	20	✳	6020	Total/NA
Thallium	0.220	J	1.14	0.122	mg/Kg	20	✳	6020	Total/NA
Vanadium	54.9		2.29	0.124	mg/Kg	20	✳	6020	Total/NA
Chromium - DL	27.5		11.4	1.71	mg/Kg	100	✳	6020	Total/NA
Copper - DL	27.2		5.72	0.601	mg/Kg	100	✳	6020	Total/NA
Molybdenum - DL	1.33	J	5.72	0.606	mg/Kg	100	✳	6020	Total/NA
Zinc - DL	84.4		28.6	5.24	mg/Kg	100	✳	6020	Total/NA
Mercury	0.0383	J	0.0958	0.0155	mg/Kg	1	✳	7471A	Total/NA
Total Organic Carbon - Quad	0.757	B	0.230	0.0111	%	1	✳	9060A	Total/NA

**Client Sample ID: LCW-05-061722**

**Lab Sample ID: 570-100189-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	21	J	23	11	ug/Kg	1	✳	8260B	Total/NA
Benzene	1.5		1.2	0.30	ug/Kg	1	✳	8260B	Total/NA
Carbon disulfide	15		12	0.46	ug/Kg	1	✳	8260B	Total/NA
Toluene	0.72	J	1.2	0.31	ug/Kg	1	✳	8260B	Total/NA
Benzo[e]pyrene - DL	8.5	J	28	7.0	ug/Kg	5	✳	8270C SIM	Total/NA
Perylene - DL	62		28	15	ug/Kg	5	✳	8270C SIM	Total/NA
C17-C18	4.5	J	5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C19-C20	8.2		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C21-C22	13		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C23-C24	25		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C25-C28	80		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C29-C32	120		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C33-C36	73		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C37-C40	41		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C41-C44	16		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
C6-C44	370		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
Diesel Range Organics [C10-C28]	130		5.7	4.3	mg/Kg	1	✳	8015B	Total/NA
4,4'-DDE	0.72	J	1.1	0.30	ug/Kg	1	✳	8081A	Total/NA
4,4'-DDT	1.9		1.1	0.35	ug/Kg	1	✳	8081A	Total/NA
Antimony	0.318	J	2.30	0.139	mg/Kg	20	✳	6020	Total/NA
Arsenic	7.65		1.15	0.344	mg/Kg	20	✳	6020	Total/NA
Barium	142		1.15	0.106	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.251	J	1.15	0.100	mg/Kg	20	✳	6020	Total/NA
Cobalt	12.9		1.15	0.169	mg/Kg	20	✳	6020	Total/NA
Lead	19.9		1.15	0.123	mg/Kg	20	✳	6020	Total/NA
Nickel	25.2		1.15	0.106	mg/Kg	20	✳	6020	Total/NA
Thallium	0.182	J	1.15	0.123	mg/Kg	20	✳	6020	Total/NA
Vanadium	56.5		2.30	0.124	mg/Kg	20	✳	6020	Total/NA
Chromium - DL	30.0		11.5	1.72	mg/Kg	100	✳	6020	Total/NA
Copper - DL	38.5		5.75	0.604	mg/Kg	100	✳	6020	Total/NA
Molybdenum - DL	0.721	J	5.75	0.610	mg/Kg	100	✳	6020	Total/NA
Zinc - DL	85.3		28.8	5.27	mg/Kg	100	✳	6020	Total/NA
Mercury	0.0410	J	0.0983	0.0159	mg/Kg	1	✳	7471A	Total/NA
Total Organic Carbon - Quad	0.973	B	0.227	0.0110	%	1	✳	9060A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-07-061722**

**Lab Sample ID: 570-100189-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
C25-C28	8.9		5.8	4.5	mg/Kg	1	☒	8015B	Total/NA
C29-C32	9.4		5.8	4.5	mg/Kg	1	☒	8015B	Total/NA
C33-C36	6.5		5.8	4.5	mg/Kg	1	☒	8015B	Total/NA
C6-C44	30		5.8	4.5	mg/Kg	1	☒	8015B	Total/NA
Diesel Range Organics [C10-C28]	10		5.8	4.5	mg/Kg	1	☒	8015B	Total/NA
Antimony	0.242	J	2.35	0.142	mg/Kg	20	☒	6020	Total/NA
Arsenic	4.19		1.17	0.351	mg/Kg	20	☒	6020	Total/NA
Barium	103		1.17	0.108	mg/Kg	20	☒	6020	Total/NA
Cadmium	0.138	J	1.17	0.102	mg/Kg	20	☒	6020	Total/NA
Cobalt	11.4		1.17	0.172	mg/Kg	20	☒	6020	Total/NA
Lead	7.73		1.17	0.126	mg/Kg	20	☒	6020	Total/NA
Nickel	21.9		1.17	0.108	mg/Kg	20	☒	6020	Total/NA
Thallium	0.164	J	1.17	0.126	mg/Kg	20	☒	6020	Total/NA
Vanadium	50.7		2.35	0.127	mg/Kg	20	☒	6020	Total/NA
Chromium - DL	24.1		11.7	1.75	mg/Kg	100	☒	6020	Total/NA
Copper - DL	20.0		5.87	0.616	mg/Kg	100	☒	6020	Total/NA
Zinc - DL	59.1		29.3	5.37	mg/Kg	100	☒	6020	Total/NA
Mercury	0.0316	J	0.0978	0.0158	mg/Kg	1	☒	7471A	Total/NA
Total Organic Carbon - Quad	0.285	B	0.235	0.0113	%	1	☒	9060A	Total/NA

**Client Sample ID: LCW-08/09-061722**

**Lab Sample ID: 570-100189-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	29		6.0	2.3	ug/Kg	1	☒	8270C SIM	Total/NA
2,6-Dimethylnaphthalene	90		6.0	1.5	ug/Kg	1	☒	8270C SIM	Total/NA
2-Methylnaphthalene	32		6.0	2.2	ug/Kg	1	☒	8270C SIM	Total/NA
Acenaphthene	3.1	J	6.0	2.6	ug/Kg	1	☒	8270C SIM	Total/NA
Benzo[a]anthracene	4.8	J	6.0	2.7	ug/Kg	1	☒	8270C SIM	Total/NA
Benzo[e]pyrene	10		6.0	1.5	ug/Kg	1	☒	8270C SIM	Total/NA
Chrysene	21		6.0	2.0	ug/Kg	1	☒	8270C SIM	Total/NA
Fluoranthene	7.0		6.0	3.3	ug/Kg	1	☒	8270C SIM	Total/NA
Fluorene	8.6		6.0	2.6	ug/Kg	1	☒	8270C SIM	Total/NA
Perylene	33		6.0	3.2	ug/Kg	1	☒	8270C SIM	Total/NA
Phenanthrene	32		6.0	2.6	ug/Kg	1	☒	8270C SIM	Total/NA
Pyrene	9.3		6.0	3.8	ug/Kg	1	☒	8270C SIM	Total/NA
C11-C12	8.9		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C13-C14	28		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C15-C16	41		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C17-C18	54		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C19-C20	65		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C21-C22	67		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C23-C24	77		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C25-C28	170		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C29-C32	160		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C33-C36	84		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C37-C40	45		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C41-C44	18		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
C6-C44	800		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
Diesel Range Organics [C10-C28]	510		5.9	4.6	mg/Kg	1	☒	8015B	Total/NA
2,4'-DDD	0.84	J p	1.2	0.076	ug/Kg	1	☒	8081A	Total/NA
4,4'-DDD	2.5		1.2	0.60	ug/Kg	1	☒	8081A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC

Job ID: 570-100189-1

Project/Site: Los Cerritos Wetlands Restoration Project

## Client Sample ID: LCW-08/09-061722 (Continued)

## Lab Sample ID: 570-100189-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4,4'-DDE	2.3	p	1.2	0.32	ug/Kg	1	✳	8081A	Total/NA
Antimony	0.224	J	2.37	0.143	mg/Kg	20	✳	6020	Total/NA
Arsenic	9.82		1.18	0.354	mg/Kg	20	✳	6020	Total/NA
Barium	119		1.18	0.109	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.220	J	1.18	0.103	mg/Kg	20	✳	6020	Total/NA
Cobalt	10.4		1.18	0.174	mg/Kg	20	✳	6020	Total/NA
Lead	16.1		1.18	0.127	mg/Kg	20	✳	6020	Total/NA
Nickel	20.0		1.18	0.109	mg/Kg	20	✳	6020	Total/NA
Thallium	0.158	J	1.18	0.127	mg/Kg	20	✳	6020	Total/NA
Vanadium	46.2		2.37	0.128	mg/Kg	20	✳	6020	Total/NA
Chromium - DL	24.5		11.8	1.77	mg/Kg	100	✳	6020	Total/NA
Copper - DL	28.0		5.91	0.621	mg/Kg	100	✳	6020	Total/NA
Molybdenum - DL	1.39	J	5.91	0.627	mg/Kg	100	✳	6020	Total/NA
Zinc - DL	71.0		29.6	5.42	mg/Kg	100	✳	6020	Total/NA
Mercury	0.0784	J	0.0995	0.0161	mg/Kg	1	✳	7471A	Total/NA
Total Organic Carbon - Quad	0.923	B	0.239	0.0116	%	1	✳	9060A	Total/NA

## Client Sample ID: LCW-10/11-061722

## Lab Sample ID: 570-100189-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	3.8	J	6.7	3.0	ug/Kg	1	✳	8270C SIM	Total/NA
Benzo[a]pyrene	5.0	J	6.7	4.0	ug/Kg	1	✳	8270C SIM	Total/NA
Benzo[e]pyrene	7.2		6.7	1.7	ug/Kg	1	✳	8270C SIM	Total/NA
Chrysene	6.8		6.7	2.2	ug/Kg	1	✳	8270C SIM	Total/NA
Fluoranthene	6.6	J	6.7	3.8	ug/Kg	1	✳	8270C SIM	Total/NA
Perylene	7.3		6.7	3.7	ug/Kg	1	✳	8270C SIM	Total/NA
Phenanthrene	3.7	J	6.7	2.9	ug/Kg	1	✳	8270C SIM	Total/NA
Pyrene	11		6.7	4.3	ug/Kg	1	✳	8270C SIM	Total/NA
C6-C44	15		6.7	5.2	mg/Kg	1	✳	8015B	Total/NA
4,4'-DDD	1.2	J	1.3	0.67	ug/Kg	1	✳	8081A	Total/NA
4,4'-DDE	1.8		1.3	0.36	ug/Kg	1	✳	8081A	Total/NA
Antimony	0.303	J	2.70	0.164	mg/Kg	20	✳	6020	Total/NA
Arsenic	7.89		1.35	0.404	mg/Kg	20	✳	6020	Total/NA
Barium	186		1.35	0.124	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.272	J	1.35	0.118	mg/Kg	20	✳	6020	Total/NA
Cobalt	15.2		1.35	0.199	mg/Kg	20	✳	6020	Total/NA
Lead	14.8		1.35	0.145	mg/Kg	20	✳	6020	Total/NA
Nickel	30.5		1.35	0.124	mg/Kg	20	✳	6020	Total/NA
Thallium	0.220	J	1.35	0.145	mg/Kg	20	✳	6020	Total/NA
Vanadium	68.5		2.70	0.146	mg/Kg	20	✳	6020	Total/NA
Chromium - DL	36.8		13.5	2.02	mg/Kg	100	✳	6020	Total/NA
Copper - DL	40.0		6.76	0.710	mg/Kg	100	✳	6020	Total/NA
Molybdenum - DL	2.01	J	6.76	0.717	mg/Kg	100	✳	6020	Total/NA
Zinc - DL	103		33.8	6.19	mg/Kg	100	✳	6020	Total/NA
Mercury	0.0442	J	0.115	0.0186	mg/Kg	1	✳	7471A	Total/NA
Total Organic Carbon - Quad	1.05	B	0.270	0.0131	%	1	✳	9060A	Total/NA

## Client Sample ID: LCW-12/13-061722

## Lab Sample ID: 570-100189-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[e]pyrene	17	J	31	7.7	ug/Kg	5	✳	8270C SIM	Total/NA
Chrysene	19	J	31	10	ug/Kg	5	✳	8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Client Sample ID: LCW-12/13-061722 (Continued)

## Lab Sample ID: 570-100189-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perylene	52		31	17	ug/Kg	5	✳	8270C SIM	Total/NA
C13-C14	8.8		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C15-C16	25		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C17-C18	47		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C19-C20	68		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C21-C22	74		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C23-C24	91		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C25-C28	180		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C29-C32	180		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C33-C36	100		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C37-C40	55		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C41-C44	21		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
C6-C44	850		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
Diesel Range Organics [C10-C28]	500		6.1	4.7	mg/Kg	1	✳	8015B	Total/NA
2,4'-DDD	0.76	J p	1.2	0.079	ug/Kg	1	✳	8081A	Total/NA
4,4'-DDD	3.0		1.2	0.61	ug/Kg	1	✳	8081A	Total/NA
4,4'-DDE	1.4	p	1.2	0.33	ug/Kg	1	✳	8081A	Total/NA
4,4'-DDT	1.1	J p	1.2	0.38	ug/Kg	1	✳	8081A	Total/NA
Dieldrin	0.18	J p	0.25	0.081	ug/Kg	1	✳	8081A	Total/NA
Antimony	0.163	J	2.48	0.150	mg/Kg	20	✳	6020	Total/NA
Arsenic	7.79		1.24	0.371	mg/Kg	20	✳	6020	Total/NA
Barium	137		1.24	0.114	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.785	J	1.24	0.156	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.542	J	1.24	0.108	mg/Kg	20	✳	6020	Total/NA
Chromium	28.3		2.48	0.371	mg/Kg	20	✳	6020	Total/NA
Cobalt	11.4		1.24	0.182	mg/Kg	20	✳	6020	Total/NA
Copper	28.0		1.24	0.130	mg/Kg	20	✳	6020	Total/NA
Lead	11.1		1.24	0.133	mg/Kg	20	✳	6020	Total/NA
Molybdenum	1.27		1.24	0.131	mg/Kg	20	✳	6020	Total/NA
Nickel	22.9		1.24	0.114	mg/Kg	20	✳	6020	Total/NA
Thallium	0.234	J	1.24	0.133	mg/Kg	20	✳	6020	Total/NA
Vanadium	46.5		2.48	0.134	mg/Kg	20	✳	6020	Total/NA
Zinc	95.0		6.20	1.14	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0403	J	0.103	0.0167	mg/Kg	1	✳	7471A	Total/NA
Total Organic Carbon - Quad	1.20	B	0.247	0.0119	%	1	✳	9060A	Total/NA

## Client Sample ID: LCW-02-061522

## Lab Sample ID: 570-100189-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		1.3	0.34	ug/Kg	1	✳	8260B	Total/NA
Toluene	0.57	J	1.3	0.36	ug/Kg	1	✳	8260B	Total/NA

## Client Sample ID: LCW-04-061522

## Lab Sample ID: 570-100189-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	37		27	13	ug/Kg	1	✳	8260B	Total/NA
Benzene	2.0		1.4	0.35	ug/Kg	1	✳	8260B	Total/NA
Carbon disulfide	2.3	J	14	0.55	ug/Kg	1	✳	8260B	Total/NA
Toluene	1.2	J	1.4	0.37	ug/Kg	1	✳	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Client Sample ID: LCW-09-061722

## Lab Sample ID: 570-100189-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	8.0	J	25	5.7	ug/Kg	1	✳	8260B	Total/NA
Acetone	58		25	12	ug/Kg	1	✳	8260B	Total/NA
Benzene	0.90	J	1.3	0.32	ug/Kg	1	✳	8260B	Total/NA
Ethylbenzene	0.48	J	1.3	0.26	ug/Kg	1	✳	8260B	Total/NA
m,p-Xylene	1.7	J	2.5	0.60	ug/Kg	1	✳	8260B	Total/NA
o-Xylene	0.50	J	1.3	0.32	ug/Kg	1	✳	8260B	Total/NA
Toluene	0.57	J	1.3	0.34	ug/Kg	1	✳	8260B	Total/NA
Xylenes, Total	2.2	J	2.5	0.76	ug/Kg	1	✳	8260B	Total/NA

## Client Sample ID: LCW-11-061622

## Lab Sample ID: 570-100189-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4	J	1.5	0.38	ug/Kg	1	✳	8260B	Total/NA
Toluene	0.59	J	1.5	0.40	ug/Kg	1	✳	8260B	Total/NA

## Client Sample ID: LCW-12-061622

## Lab Sample ID: 570-100189-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	320	J	780	31	ug/Kg	50	✳	8260B	Total/NA
Toluene	24	J	78	21	ug/Kg	50	✳	8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.2	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1,1-Trichloroethane	ND		1.2	0.27	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1,2,2-Tetrachloroethane	ND		2.3	0.63	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		12	0.54	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1,2-Trichloroethane	ND		1.2	0.54	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1-Dichloroethane	ND		1.2	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1-Dichloroethene	ND		1.2	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,1-Dichloropropene	ND		2.3	0.45	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2,3-Trichlorobenzene	ND		2.3	1.2	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2,3-Trichloropropane	ND		2.3	0.49	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2,4-Trichlorobenzene	ND		2.3	0.47	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2,4-Trimethylbenzene	ND		2.3	0.69	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2-Dibromo-3-Chloropropane	ND		12	7.8	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2-Dibromoethane	ND		1.2	0.24	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2-Dichlorobenzene	ND		1.2	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2-Dichloroethane	ND		1.2	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,2-Dichloropropane	ND		1.2	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,3,5-Trimethylbenzene	ND		2.3	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,3-Dichlorobenzene	ND		1.2	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,3-Dichloropropane	ND		1.2	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
1,4-Dichlorobenzene	ND		1.2	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
2,2-Dichloropropane	ND		5.8	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
2-Butanone	ND		23	5.2	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
2-Chlorotoluene	ND		1.2	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
2-Hexanone	ND		23	3.6	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
4-Chlorotoluene	ND		1.2	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
4-Methyl-2-pentanone	ND		23	3.4	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
<b>Acetone</b>	<b>21</b>	<b>J</b>	23	11	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
<b>Benzene</b>	<b>1.5</b>		1.2	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Bromobenzene	ND		1.2	0.24	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Bromochloromethane	ND		2.3	0.51	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Bromodichloromethane	ND		1.2	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Bromoform	ND		5.8	1.5	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Bromomethane	ND		23	7.6	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
<b>Carbon disulfide</b>	<b>15</b>		12	0.46	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Carbon tetrachloride	ND		1.2	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Chlorobenzene	ND		1.2	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Chloroethane	ND	+	2.3	0.86	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Chloroform	ND		1.2	0.68	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Chloromethane	ND	+	23	1.8	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
cis-1,2-Dichloroethene	ND		1.2	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
cis-1,3-Dichloropropene	ND		1.2	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Dibromochloromethane	ND		2.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Dibromomethane	ND		1.2	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Dichlorodifluoromethane	ND		2.3	0.52	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Di-isopropyl ether (DIPE)	ND		1.2	0.58	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Ethanol	ND	+	290	76	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Ethylbenzene	ND		1.2	0.24	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Ethyl-t-butyl ether (ETBE)	ND		1.2	0.27	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.2	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
m,p-Xylene	ND		2.3	0.55	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Methylene Chloride	ND		12	3.6	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Methyl-t-Butyl Ether (MTBE)	ND		2.3	0.22	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Naphthalene	ND		12	6.0	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
n-Butylbenzene	ND		1.2	0.24	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
N-Propylbenzene	ND		2.3	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
o-Xylene	ND		1.2	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
p-Isopropyltoluene	ND		1.2	0.33	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
sec-Butylbenzene	ND		1.2	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Styrene	ND		1.2	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Tert-amyl-methyl ether (TAME)	ND		1.2	0.22	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
tert-Butyl alcohol (TBA)	ND		23	8.1	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
tert-Butylbenzene	ND		1.2	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Tetrachloroethene	ND		1.2	0.26	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
<b>Toluene</b>	<b>0.72</b>	<b>J</b>	1.2	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
trans-1,2-Dichloroethene	ND		1.2	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
trans-1,3-Dichloropropene	ND		2.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Trichloroethene	ND		2.3	0.45	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Trichlorofluoromethane	ND		12	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Vinyl acetate	ND		12	4.5	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Vinyl chloride	ND	*+	1.2	0.44	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1
Xylenes, Total	ND		2.3	0.69	ug/Kg	☼	06/18/22 10:45	06/23/22 14:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	126		80 - 142	06/18/22 10:45	06/23/22 14:39	1
4-Bromofluorobenzene (Surr)	92		80 - 120	06/18/22 10:45	06/23/22 14:39	1
Dibromofluoromethane (Surr)	112		80 - 123	06/18/22 10:45	06/23/22 14:39	1
Toluene-d8 (Surr)	101		80 - 120	06/18/22 10:45	06/23/22 14:39	1

**Client Sample ID: LCW-02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.3	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1,1-Trichloroethane	ND		1.3	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1,2,2-Tetrachloroethane	ND		2.7	0.72	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		13	0.61	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1,2-Trichloroethane	ND		1.3	0.62	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1-Dichloroethane	ND		1.3	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1-Dichloroethene	ND		1.3	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,1-Dichloropropene	ND		2.7	0.52	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2,3-Trichlorobenzene	ND		2.7	1.3	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2,3-Trichloropropane	ND		2.7	0.56	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2,4-Trichlorobenzene	ND		2.7	0.55	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2,4-Trimethylbenzene	ND		2.7	0.80	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2-Dibromo-3-Chloropropane	ND		13	9.0	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2-Dibromoethane	ND		1.3	0.27	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2-Dichlorobenzene	ND		1.3	0.33	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,2-Dichloroethane	ND		1.3	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.3	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,3,5-Trimethylbenzene	ND		2.7	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,3-Dichlorobenzene	ND		1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,3-Dichloropropane	ND		1.3	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
1,4-Dichlorobenzene	ND		1.3	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
2,2-Dichloropropane	ND		6.6	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
2-Butanone	ND		27	6.0	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
2-Chlorotoluene	ND		1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
2-Hexanone	ND		27	4.1	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
4-Chlorotoluene	ND		1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
4-Methyl-2-pentanone	ND		27	3.9	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Acetone	ND		27	13	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
<b>Benzene</b>	<b>1.3</b>		1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Bromobenzene	ND		1.3	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Bromochloromethane	ND		2.7	0.59	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Bromodichloromethane	ND		1.3	0.43	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Bromoform	ND		6.6	1.8	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Bromomethane	ND		27	8.7	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Carbon disulfide	ND		13	0.53	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Carbon tetrachloride	ND		1.3	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Chlorobenzene	ND		1.3	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Chloroethane	ND	+	2.7	0.99	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Chloroform	ND		1.3	0.78	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Chloromethane	ND	+	27	2.0	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
cis-1,2-Dichloroethene	ND		1.3	0.45	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
cis-1,3-Dichloropropene	ND		1.3	0.46	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Dibromochloromethane	ND		2.7	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Dibromomethane	ND		1.3	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Dichlorodifluoromethane	ND		2.7	0.60	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Di-isopropyl ether (DIPE)	ND		1.3	0.66	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Ethanol	ND	+	330	88	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Ethylbenzene	ND		1.3	0.27	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Ethyl-t-butyl ether (ETBE)	ND		1.3	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Isopropylbenzene	ND		1.3	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
m,p-Xylene	ND		2.7	0.63	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Methylene Chloride	ND		13	4.2	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Methyl-t-Butyl Ether (MTBE)	ND		2.7	0.25	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Naphthalene	ND		13	6.9	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
n-Butylbenzene	ND		1.3	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
N-Propylbenzene	ND		2.7	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
o-Xylene	ND		1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
p-Isopropyltoluene	ND		1.3	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
sec-Butylbenzene	ND		1.3	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Styrene	ND		1.3	0.42	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Tert-amyl-methyl ether (TAME)	ND		1.3	0.26	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
tert-Butyl alcohol (TBA)	ND		27	9.3	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
tert-Butylbenzene	ND		1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Tetrachloroethene	ND		1.3	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
<b>Toluene</b>	<b>0.57</b>	<b>J</b>	1.3	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.3	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
trans-1,3-Dichloropropene	ND		2.7	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Trichloroethene	ND		2.7	0.51	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Trichlorofluoromethane	ND		13	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Vinyl acetate	ND		13	5.2	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Vinyl chloride	ND	+	1.3	0.50	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1
Xylenes, Total	ND		2.7	0.80	ug/Kg	☼	06/18/22 10:45	06/23/22 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	127		80 - 142	06/18/22 10:45	06/23/22 15:03	1
4-Bromofluorobenzene (Surr)	92		80 - 120	06/18/22 10:45	06/23/22 15:03	1
Dibromofluoromethane (Surr)	114		80 - 123	06/18/22 10:45	06/23/22 15:03	1
Toluene-d8 (Surr)	101		80 - 120	06/18/22 10:45	06/23/22 15:03	1

**Client Sample ID: LCW-04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-9**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.4	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1,1-Trichloroethane	ND		1.4	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1,2,2-Tetrachloroethane	ND		2.7	0.74	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		14	0.63	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1,2-Trichloroethane	ND		1.4	0.63	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1-Dichloroethane	ND		1.4	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1-Dichloroethene	ND		1.4	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,1-Dichloropropene	ND		2.7	0.53	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2,3-Trichlorobenzene	ND		2.7	1.4	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2,3-Trichloropropane	ND		2.7	0.57	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2,4-Trichlorobenzene	ND		2.7	0.56	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2,4-Trimethylbenzene	ND		2.7	0.82	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2-Dibromo-3-Chloropropane	ND		14	9.3	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2-Dibromoethane	ND		1.4	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2-Dichlorobenzene	ND		1.4	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2-Dichloroethane	ND		1.4	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,2-Dichloropropane	ND		1.4	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,3,5-Trimethylbenzene	ND		2.7	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,3-Dichlorobenzene	ND		1.4	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,3-Dichloropropane	ND		1.4	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
1,4-Dichlorobenzene	ND		1.4	0.42	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
2,2-Dichloropropane	ND		6.8	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
2-Butanone	ND		27	6.2	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
2-Chlorotoluene	ND		1.4	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
2-Hexanone	ND		27	4.2	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
4-Chlorotoluene	ND		1.4	0.33	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
4-Methyl-2-pentanone	ND		27	4.0	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
<b>Acetone</b>	<b>37</b>		27	13	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
<b>Benzene</b>	<b>2.0</b>		1.4	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Bromobenzene	ND		1.4	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Bromochloromethane	ND		2.7	0.61	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Bromodichloromethane	ND		1.4	0.44	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-9**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		6.8	1.8	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Bromomethane	ND		27	9.0	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
<b>Carbon disulfide</b>	<b>2.3</b>	<b>J</b>	14	0.55	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Carbon tetrachloride	ND		1.4	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Chlorobenzene	ND		1.4	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Chloroethane	ND	*+	2.7	1.0	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Chloroform	ND		1.4	0.81	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Chloromethane	ND	*+	27	2.1	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
cis-1,2-Dichloroethene	ND		1.4	0.46	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
cis-1,3-Dichloropropene	ND		1.4	0.48	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Dibromochloromethane	ND		2.7	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Dibromomethane	ND		1.4	0.42	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Dichlorodifluoromethane	ND		2.7	0.62	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Di-isopropyl ether (DIPE)	ND		1.4	0.68	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Ethanol	ND	*+	340	90	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Ethylbenzene	ND		1.4	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Ethyl-t-butyl ether (ETBE)	ND		1.4	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Isopropylbenzene	ND		1.4	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
m,p-Xylene	ND		2.7	0.65	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Methylene Chloride	ND		14	4.3	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Methyl-t-Butyl Ether (MTBE)	ND		2.7	0.26	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Naphthalene	ND		14	7.1	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
n-Butylbenzene	ND		1.4	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
N-Propylbenzene	ND		2.7	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
o-Xylene	ND		1.4	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
p-Isopropyltoluene	ND		1.4	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
sec-Butylbenzene	ND		1.4	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Styrene	ND		1.4	0.43	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Tert-amyl-methyl ether (TAME)	ND		1.4	0.27	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
tert-Butyl alcohol (TBA)	ND		27	9.6	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
tert-Butylbenzene	ND		1.4	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Tetrachloroethene	ND		1.4	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
<b>Toluene</b>	<b>1.2</b>	<b>J</b>	1.4	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
trans-1,2-Dichloroethene	ND		1.4	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
trans-1,3-Dichloropropene	ND		2.7	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Trichloroethene	ND		2.7	0.53	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Trichlorofluoromethane	ND		14	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Vinyl acetate	ND		14	5.4	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Vinyl chloride	ND	*+	1.4	0.52	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1
Xylenes, Total	ND		2.7	0.82	ug/Kg	☼	06/18/22 10:45	06/23/22 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		80 - 142	06/18/22 10:45	06/23/22 15:27	1
4-Bromofluorobenzene (Surr)	90		80 - 120	06/18/22 10:45	06/23/22 15:27	1
Dibromofluoromethane (Surr)	110		80 - 123	06/18/22 10:45	06/23/22 15:27	1
Toluene-d8 (Surr)	101		80 - 120	06/18/22 10:45	06/23/22 15:27	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Client Sample ID: LCW-09-061722**

**Date Collected: 06/17/22 15:20**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-10**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.3	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1,1-Trichloroethane	ND		1.3	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1,2,2-Tetrachloroethane	ND		2.5	0.69	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		13	0.58	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1,2-Trichloroethane	ND		1.3	0.59	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1-Dichloroethane	ND		1.3	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1-Dichloroethene	ND		1.3	0.33	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,1-Dichloropropene	ND		2.5	0.49	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2,3-Trichlorobenzene	ND		2.5	1.3	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2,3-Trichloropropane	ND		2.5	0.53	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2,4-Trichlorobenzene	ND		2.5	0.52	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2,4-Trimethylbenzene	ND		2.5	0.76	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2-Dibromo-3-Chloropropane	ND		13	8.5	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2-Dibromoethane	ND		1.3	0.26	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2-Dichlorobenzene	ND		1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2-Dichloroethane	ND		1.3	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,2-Dichloropropane	ND		1.3	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,3,5-Trimethylbenzene	ND		2.5	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,3-Dichlorobenzene	ND		1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,3-Dichloropropane	ND		1.3	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
1,4-Dichlorobenzene	ND		1.3	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
2,2-Dichloropropane	ND		6.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>2-Butanone</b>	<b>8.0</b>	<b>J</b>	25	5.7	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
2-Chlorotoluene	ND		1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
2-Hexanone	ND		25	3.9	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
4-Chlorotoluene	ND		1.3	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
4-Methyl-2-pentanone	ND		25	3.7	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>Acetone</b>	<b>58</b>		25	12	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>Benzene</b>	<b>0.90</b>	<b>J</b>	1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Bromobenzene	ND		1.3	0.26	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Bromochloromethane	ND		2.5	0.56	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Bromodichloromethane	ND		1.3	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Bromoform	ND		6.3	1.7	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Bromomethane	ND		25	8.3	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Carbon disulfide	ND		13	0.50	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Carbon tetrachloride	ND		1.3	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Chlorobenzene	ND		1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Chloroethane	ND	+	2.5	0.94	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Chloroform	ND		1.3	0.74	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Chloromethane	ND	+	25	1.9	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
cis-1,2-Dichloroethene	ND		1.3	0.43	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
cis-1,3-Dichloropropene	ND		1.3	0.44	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Dibromochloromethane	ND		2.5	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Dibromomethane	ND		1.3	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Dichlorodifluoromethane	ND		2.5	0.57	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Di-isopropyl ether (DIPE)	ND		1.3	0.63	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Ethanol	ND	+	310	83	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>Ethylbenzene</b>	<b>0.48</b>	<b>J</b>	1.3	0.26	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Ethyl-t-butyl ether (ETBE)	ND		1.3	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-09-061722**

**Date Collected: 06/17/22 15:20**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-10**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.3	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>m,p-Xylene</b>	<b>1.7</b>	<b>J</b>	2.5	0.60	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Methylene Chloride	ND		13	3.9	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Methyl-t-Butyl Ether (MTBE)	ND		2.5	0.24	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Naphthalene	ND		13	6.6	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
n-Butylbenzene	ND		1.3	0.27	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
N-Propylbenzene	ND		2.5	0.33	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>o-Xylene</b>	<b>0.50</b>	<b>J</b>	1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
p-Isopropyltoluene	ND		1.3	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
sec-Butylbenzene	ND		1.3	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Styrene	ND		1.3	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Tert-amyl-methyl ether (TAME)	ND		1.3	0.24	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
tert-Butyl alcohol (TBA)	ND		25	8.8	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
tert-Butylbenzene	ND		1.3	0.32	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Tetrachloroethene	ND		1.3	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>Toluene</b>	<b>0.57</b>	<b>J</b>	1.3	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
trans-1,2-Dichloroethene	ND		1.3	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
trans-1,3-Dichloropropene	ND		2.5	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Trichloroethene	ND		2.5	0.49	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Trichlorofluoromethane	ND		13	0.34	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Vinyl acetate	ND		13	4.9	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
Vinyl chloride	ND	*+	1.3	0.48	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1
<b>Xylenes, Total</b>	<b>2.2</b>	<b>J</b>	2.5	0.76	ug/Kg	☼	06/18/22 10:45	06/23/22 15:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		80 - 142	06/18/22 10:45	06/23/22 15:51	1
4-Bromofluorobenzene (Surr)	89		80 - 120	06/18/22 10:45	06/23/22 15:51	1
Dibromofluoromethane (Surr)	110		80 - 123	06/18/22 10:45	06/23/22 15:51	1
Toluene-d8 (Surr)	100		80 - 120	06/18/22 10:45	06/23/22 15:51	1

**Client Sample ID: LCW-11-061622**

**Date Collected: 06/16/22 12:45**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-11**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.5	0.43	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1,1-Trichloroethane	ND		1.5	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1,2,2-Tetrachloroethane	ND		3.0	0.81	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	0.68	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1,2-Trichloroethane	ND		1.5	0.69	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1-Dichloroethane	ND		1.5	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1-Dichloroethene	ND		1.5	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,1-Dichloropropene	ND		3.0	0.57	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2,3-Trichlorobenzene	ND		3.0	1.5	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2,3-Trichloropropane	ND		3.0	0.62	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2,4-Trichlorobenzene	ND		3.0	0.61	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2,4-Trimethylbenzene	ND		3.0	0.89	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2-Dibromo-3-Chloropropane	ND		15	10	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2-Dibromoethane	ND		1.5	0.30	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2-Dichlorobenzene	ND		1.5	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,2-Dichloroethane	ND		1.5	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-11-061622**

**Date Collected: 06/16/22 12:45**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-11**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.5	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,3,5-Trimethylbenzene	ND		3.0	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,3-Dichlorobenzene	ND		1.5	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,3-Dichloropropane	ND		1.5	0.44	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
1,4-Dichlorobenzene	ND		1.5	0.45	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
2,2-Dichloropropane	ND		7.4	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
2-Butanone	ND		30	6.7	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
2-Chlorotoluene	ND		1.5	0.37	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
2-Hexanone	ND		30	4.6	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
4-Chlorotoluene	ND		1.5	0.36	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
4-Methyl-2-pentanone	ND		30	4.3	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Acetone	ND		30	15	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
<b>Benzene</b>	<b>1.4</b>	<b>J</b>	1.5	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Bromobenzene	ND		1.5	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Bromochloromethane	ND		3.0	0.66	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Bromodichloromethane	ND		1.5	0.48	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Bromoform	ND		7.4	2.0	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Bromomethane	ND		30	9.7	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Carbon disulfide	ND		15	0.59	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Carbon tetrachloride	ND		1.5	0.44	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Chlorobenzene	ND		1.5	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Chloroethane	ND	+	3.0	1.1	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Chloroform	ND		1.5	0.87	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Chloromethane	ND	+	30	2.3	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
cis-1,2-Dichloroethene	ND		1.5	0.50	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
cis-1,3-Dichloropropene	ND		1.5	0.52	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Dibromochloromethane	ND		3.0	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Dibromomethane	ND		1.5	0.45	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Dichlorodifluoromethane	ND		3.0	0.67	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Di-isopropyl ether (DIPE)	ND		1.5	0.74	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Ethanol	ND	+	370	98	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Ethylbenzene	ND		1.5	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Ethyl-t-butyl ether (ETBE)	ND		1.5	0.35	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Isopropylbenzene	ND		1.5	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
m,p-Xylene	ND		3.0	0.70	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Methylene Chloride	ND		15	4.6	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Methyl-t-Butyl Ether (MTBE)	ND		3.0	0.28	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Naphthalene	ND		15	7.7	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
n-Butylbenzene	ND		1.5	0.31	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
N-Propylbenzene	ND		3.0	0.39	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
o-Xylene	ND		1.5	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
p-Isopropyltoluene	ND		1.5	0.42	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
sec-Butylbenzene	ND		1.5	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Styrene	ND		1.5	0.47	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Tert-amyl-methyl ether (TAME)	ND		1.5	0.29	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
tert-Butyl alcohol (TBA)	ND		30	10	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
tert-Butylbenzene	ND		1.5	0.38	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Tetrachloroethene	ND		1.5	0.33	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
<b>Toluene</b>	<b>0.59</b>	<b>J</b>	1.5	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-11-061622**

**Date Collected: 06/16/22 12:45**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-11**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.5	0.45	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
trans-1,3-Dichloropropene	ND		3.0	0.41	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Trichloroethene	ND		3.0	0.57	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Trichlorofluoromethane	ND		15	0.40	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Vinyl acetate	ND		15	5.8	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Vinyl chloride	ND	+	1.5	0.56	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1
Xylenes, Total	ND		3.0	0.89	ug/Kg	☼	06/18/22 10:45	06/23/22 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	124		80 - 142	06/18/22 10:45	06/23/22 16:15	1
4-Bromofluorobenzene (Surr)	92		80 - 120	06/18/22 10:45	06/23/22 16:15	1
Dibromofluoromethane (Surr)	110		80 - 123	06/18/22 10:45	06/23/22 16:15	1
Toluene-d8 (Surr)	101		80 - 120	06/18/22 10:45	06/23/22 16:15	1

**Client Sample ID: LCW-12-061622**

**Date Collected: 06/16/22 11:45**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-12**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		78	23	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1,1-Trichloroethane	ND		78	18	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1,2,2-Tetrachloroethane	ND		160	43	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		780	36	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1,2-Trichloroethane	ND		78	36	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1-Dichloroethane	ND		78	22	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1-Dichloroethene	ND		78	21	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,1-Dichloropropene	ND		160	30	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2,3-Trichlorobenzene	ND		160	78	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2,3-Trichloropropane	ND		160	33	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2,4-Trichlorobenzene	ND		160	32	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2,4-Trimethylbenzene	ND		160	47	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2-Dibromo-3-Chloropropane	ND		780	530	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2-Dibromoethane	ND		78	16	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2-Dichlorobenzene	ND		78	20	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2-Dichloroethane	ND		78	22	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,2-Dichloropropane	ND		78	22	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,3,5-Trimethylbenzene	ND		160	21	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,3-Dichlorobenzene	ND		78	20	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,3-Dichloropropane	ND		78	23	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
1,4-Dichlorobenzene	ND		78	24	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
2,2-Dichloropropane	ND		390	21	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
2-Butanone	ND		1600	350	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
2-Chlorotoluene	ND		78	20	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
2-Hexanone	ND		1600	240	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
4-Chlorotoluene	ND		78	19	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
4-Methyl-2-pentanone	ND		1600	230	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
Acetone	ND		1600	770	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
Benzene	ND		78	20	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
Bromobenzene	ND		78	16	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
Bromochloromethane	ND		160	35	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50
Bromodichloromethane	ND		78	26	ug/Kg	☼	06/18/22 10:42	06/24/22 11:51	50

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Client Sample ID: LCW-12-061622**

**Date Collected: 06/16/22 11:45**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-12**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		390	100	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Bromomethane	ND	*+	1600	520	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
<b>Carbon disulfide</b>	<b>320</b>	<b>J</b>	780	31	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Carbon tetrachloride	ND		78	23	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Chlorobenzene	ND		78	21	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Chloroethane	ND	*+	160	58	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Chloroform	ND		78	46	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Chloromethane	ND	*+	1600	120	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
cis-1,2-Dichloroethene	ND		78	26	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
cis-1,3-Dichloropropene	ND		78	27	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Dibromochloromethane	ND		160	21	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Dibromomethane	ND		78	24	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Dichlorodifluoromethane	ND		160	36	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Di-isopropyl ether (DIPE)	ND		78	39	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Ethanol	ND		20000	5200	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Ethylbenzene	ND		78	16	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Ethyl-t-butyl ether (ETBE)	ND		78	19	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Isopropylbenzene	ND		78	22	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
m,p-Xylene	ND		160	37	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Methylene Chloride	ND		780	240	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Methyl-t-Butyl Ether (MTBE)	ND		160	15	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Naphthalene	ND		780	410	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
n-Butylbenzene	ND		78	16	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
N-Propylbenzene	ND		160	20	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
o-Xylene	ND		78	20	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
p-Isopropyltoluene	ND		78	22	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
sec-Butylbenzene	ND		78	21	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Styrene	ND		78	25	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Tert-amyl-methyl ether (TAME)	ND		78	15	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
tert-Butyl alcohol (TBA)	ND		1600	550	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
tert-Butylbenzene	ND		78	20	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Tetrachloroethene	ND		78	18	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
<b>Toluene</b>	<b>24</b>	<b>J</b>	78	21	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
trans-1,2-Dichloroethene	ND		78	24	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
trans-1,3-Dichloropropene	ND		160	22	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Trichloroethene	ND		160	30	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Trichlorofluoromethane	ND	*+	780	21	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Vinyl acetate	ND		780	310	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Vinyl chloride	ND	*+	78	30	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50
Xylenes, Total	ND		160	47	ug/Kg	✱	06/18/22 10:42	06/24/22 11:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 142	06/18/22 10:42	06/24/22 11:51	50
4-Bromofluorobenzene (Surr)	94		80 - 120	06/18/22 10:42	06/24/22 11:51	50
Dibromofluoromethane (Surr)	99		80 - 123	06/18/22 10:42	06/24/22 11:51	50
Toluene-d8 (Surr)	97		80 - 120	06/18/22 10:42	06/24/22 11:51	50

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		6.2	2.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
1-Methylphenanthrene	ND		6.2	2.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
2,6-Dimethylnaphthalene	ND		6.2	1.6	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
2-Methylnaphthalene	ND		6.2	2.3	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
Acenaphthene	ND		6.2	2.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Acenaphthylene</b>	<b>3.5</b>	<b>J</b>	6.2	2.6	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Anthracene</b>	<b>29</b>		6.2	2.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Benzo[a]anthracene</b>	<b>8.1</b>		6.2	2.8	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Benzo[a]pyrene</b>	<b>13</b>		6.2	3.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Benzo[e]pyrene</b>	<b>13</b>		6.2	1.6	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
Biphenyl	ND		6.2	1.8	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Chrysene</b>	<b>14</b>		6.2	2.1	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Dibenz(a,h)anthracene</b>	<b>2.8</b>	<b>J</b>	6.2	2.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Fluoranthene</b>	<b>18</b>		6.2	3.5	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
Fluorene	ND		6.2	2.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
Naphthalene	ND		6.2	1.8	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Perylene</b>	<b>7.8</b>		6.2	3.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Phenanthrene</b>	<b>10</b>		6.2	2.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
<b>Pyrene</b>	<b>19</b>		6.2	4.0	ug/Kg	✱	06/23/22 21:28	07/05/22 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	94		26 - 136				06/23/22 21:28	07/05/22 13:32	1
Nitrobenzene-d5 (Surr)	84		16 - 124				06/23/22 21:28	07/05/22 13:32	1
p-Terphenyl-d14 (Surr)	87		36 - 125				06/23/22 21:28	07/05/22 13:32	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		5.7	2.2	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
1-Methylphenanthrene	ND		5.7	2.5	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
2,6-Dimethylnaphthalene	ND		5.7	1.5	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
2-Methylnaphthalene	ND		5.7	2.1	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Acenaphthene	ND		5.7	2.5	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Acenaphthylene	ND		5.7	2.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Anthracene	ND		5.7	2.2	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Benzo[a]anthracene</b>	<b>2.6</b>	<b>J</b>	5.7	2.6	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Benzo[a]pyrene	ND		5.7	3.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Benzo[e]pyrene</b>	<b>4.5</b>	<b>J</b>	5.7	1.4	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Biphenyl	ND		5.7	1.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Chrysene</b>	<b>4.0</b>	<b>J</b>	5.7	1.9	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Dibenz(a,h)anthracene	ND		5.7	2.2	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Fluoranthene</b>	<b>4.4</b>	<b>J</b>	5.7	3.2	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Fluorene	ND		5.7	2.5	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
Naphthalene	ND		5.7	1.6	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Perylene</b>	<b>12</b>		5.7	3.1	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Phenanthrene</b>	<b>2.6</b>	<b>J</b>	5.7	2.5	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1
<b>Pyrene</b>	<b>4.7</b>	<b>J</b>	5.7	3.7	ug/Kg	✱	06/23/22 21:28	07/05/22 13:53	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	88		26 - 136	06/23/22 21:28	07/05/22 13:53	1
Nitrobenzene-d5 (Surr)	84		16 - 124	06/23/22 21:28	07/05/22 13:53	1
p-Terphenyl-d14 (Surr)	88		36 - 125	06/23/22 21:28	07/05/22 13:53	1

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		5.9	2.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
1-Methylphenanthrene	ND		5.9	2.6	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
2,6-Dimethylnaphthalene	ND		5.9	1.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
2-Methylnaphthalene	ND		5.9	2.2	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Acenaphthene	ND		5.9	2.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Acenaphthylene	ND		5.9	2.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Anthracene	ND		5.9	2.2	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Benzo[a]anthracene	ND		5.9	2.6	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Benzo[a]pyrene	ND		5.9	3.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Benzo[e]pyrene	ND		5.9	1.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Biphenyl	ND		5.9	1.7	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Chrysene	ND		5.9	1.9	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Dibenz(a,h)anthracene	ND		5.9	2.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Fluoranthene	ND		5.9	3.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Fluorene	ND		5.9	2.6	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Naphthalene	ND		5.9	1.7	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Perylene	ND		5.9	3.2	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Phenanthrene	ND		5.9	2.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1
Pyrene	ND		5.9	3.7	ug/Kg	☆	06/23/22 21:28	07/05/22 14:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	80		26 - 136	06/23/22 21:28	07/05/22 14:36	1
Nitrobenzene-d5 (Surr)	68		16 - 124	06/23/22 21:28	07/05/22 14:36	1
p-Terphenyl-d14 (Surr)	80		36 - 125	06/23/22 21:28	07/05/22 14:36	1

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1-Methylnaphthalene</b>	<b>29</b>		6.0	2.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
1-Methylphenanthrene	ND		6.0	2.6	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>2,6-Dimethylnaphthalene</b>	<b>90</b>		6.0	1.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>2-Methylnaphthalene</b>	<b>32</b>		6.0	2.2	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>Acenaphthene</b>	<b>3.1</b>	<b>J</b>	6.0	2.6	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
Acenaphthylene	ND		6.0	2.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
Anthracene	ND		6.0	2.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>Benzo[a]anthracene</b>	<b>4.8</b>	<b>J</b>	6.0	2.7	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
Benzo[a]pyrene	ND		6.0	3.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>Benzo[e]pyrene</b>	<b>10</b>		6.0	1.5	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
Biphenyl	ND		6.0	1.7	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>Chrysene</b>	<b>21</b>		6.0	2.0	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
Dibenz(a,h)anthracene	ND		6.0	2.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>Fluoranthene</b>	<b>7.0</b>		6.0	3.3	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
<b>Fluorene</b>	<b>8.6</b>		6.0	2.6	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1
Naphthalene	ND		6.0	1.7	ug/Kg	☆	06/23/22 21:28	07/05/22 14:58	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perylene	33		6.0	3.2	ug/Kg	☼	06/23/22 21:28	07/05/22 14:58	1
Phenanthrene	32		6.0	2.6	ug/Kg	☼	06/23/22 21:28	07/05/22 14:58	1
Pyrene	9.3		6.0	3.8	ug/Kg	☼	06/23/22 21:28	07/05/22 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		26 - 136				06/23/22 21:28	07/05/22 14:58	1
Nitrobenzene-d5 (Surr)	78		16 - 124				06/23/22 21:28	07/05/22 14:58	1
p-Terphenyl-d14 (Surr)	81		36 - 125				06/23/22 21:28	07/05/22 14:58	1

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		6.7	2.6	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
1-Methylphenanthrene	ND		6.7	2.9	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
2,6-Dimethylnaphthalene	ND		6.7	1.7	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
2-Methylnaphthalene	ND		6.7	2.5	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Acenaphthene	ND		6.7	2.9	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Acenaphthylene	ND		6.7	2.8	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Anthracene	ND		6.7	2.6	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Benzo[a]anthracene	3.8	J	6.7	3.0	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Benzo[a]pyrene	5.0	J	6.7	4.0	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Benzo[e]pyrene	7.2		6.7	1.7	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Biphenyl	ND		6.7	2.0	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Chrysene	6.8		6.7	2.2	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Dibenz(a,h)anthracene	ND		6.7	2.6	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Fluoranthene	6.6	J	6.7	3.8	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Fluorene	ND		6.7	3.0	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Naphthalene	ND		6.7	1.9	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Perylene	7.3		6.7	3.7	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Phenanthrene	3.7	J	6.7	2.9	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Pyrene	11		6.7	4.3	ug/Kg	☼	06/23/22 21:28	07/05/22 15:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		26 - 136				06/23/22 21:28	07/05/22 15:19	1
Nitrobenzene-d5 (Surr)	69		16 - 124				06/23/22 21:28	07/05/22 15:19	1
p-Terphenyl-d14 (Surr)	88		36 - 125				06/23/22 21:28	07/05/22 15:19	1

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		31	12	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
1-Methylphenanthrene	ND		31	13	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
2,6-Dimethylnaphthalene	ND		31	7.9	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
2-Methylnaphthalene	ND		31	11	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
Acenaphthene	ND		31	13	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
Acenaphthylene	ND		31	13	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
Anthracene	ND		31	12	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5
Benzo[a]anthracene	ND		31	14	ug/Kg	☼	06/23/22 21:28	07/06/22 16:37	5

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		31	18	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
<b>Benzo[e]pyrene</b>	<b>17</b>	<b>J</b>	31	7.7	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Biphenyl	ND		31	9.0	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
<b>Chrysene</b>	<b>19</b>	<b>J</b>	31	10	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Dibenz(a,h)anthracene	ND		31	12	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Fluoranthene	ND		31	17	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Fluorene	ND		31	14	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Naphthalene	ND		31	8.7	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
<b>Perylene</b>	<b>52</b>		31	17	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Phenanthrene	ND		31	13	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
Pyrene	ND		31	20	ug/Kg	*	06/23/22 21:28	07/06/22 16:37	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>2-Fluorobiphenyl (Surr)</i>	61						06/23/22 21:28	07/06/22 16:37	5
<i>Nitrobenzene-d5 (Surr)</i>	47						06/23/22 21:28	07/06/22 16:37	5
<i>p-Terphenyl-d14 (Surr)</i>	72						06/23/22 21:28	07/06/22 16:37	5

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) - DL

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		28	11	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
1-Methylphenanthrene	ND		28	12	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
2,6-Dimethylnaphthalene	ND		28	7.2	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
2-Methylnaphthalene	ND		28	10	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Acenaphthene	ND		28	12	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Acenaphthylene	ND		28	12	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Anthracene	ND	F2 F1	28	11	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Benzo[a]anthracene	ND	F2 F1	28	13	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Benzo[a]pyrene	ND	F2 F1	28	17	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
<b>Benzo[e]pyrene</b>	<b>8.5</b>	<b>J</b>	28	7.0	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Biphenyl	ND		28	8.2	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Chrysene	ND	F2 F1	28	9.3	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Dibenz(a,h)anthracene	ND	F1	28	11	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Fluoranthene	ND	F2 F1	28	16	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Fluorene	ND		28	12	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Naphthalene	ND		28	8.0	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
<b>Perylene</b>	<b>62</b>		28	15	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Phenanthrene	ND	F2 F1	28	12	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
Pyrene	ND	F2 F1	28	18	ug/Kg	✱	06/23/22 21:28	07/05/22 14:15	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	100		26 - 136				06/23/22 21:28	07/05/22 14:15	5
Nitrobenzene-d5 (Surr)	55		16 - 124				06/23/22 21:28	07/05/22 14:15	5
p-Terphenyl-d14 (Surr)	65		36 - 125				06/23/22 21:28	07/05/22 14:15	5

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C7 as C7	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C8 as C8	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C9-C10	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C11-C12	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C13-C14	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C15-C16	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C17-C18	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C19-C20	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C21-C22	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C23-C24	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C25-C28	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C29-C32	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C33-C36	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C37-C40	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
C41-C44	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
<b>C6-C44</b>	<b>21</b>		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1
Diesel Range Organics [C10-C28]	ND		6.2	4.8	mg/Kg	☼	06/20/22 18:36	06/23/22 01:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	118		60 - 138	06/20/22 18:36	06/23/22 01:58	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C7 as C7	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C8 as C8	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C9-C10	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C11-C12	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C13-C14	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C15-C16	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C17-C18	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C19-C20	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
C21-C22	ND		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C23-C24</b>	<b>7.0</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C25-C28</b>	<b>22</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C29-C32</b>	<b>34</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C33-C36</b>	<b>30</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C37-C40</b>	<b>29</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C41-C44</b>	<b>12</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
<b>C6-C44</b>	<b>140</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1
Diesel Range Organics [C10-C28]	<b>33</b>		5.7	4.4	mg/Kg	☼	06/20/22 18:36	06/23/22 02:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	116		60 - 138	06/20/22 18:36	06/23/22 02:19	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: LCW-05-061722

Date Collected: 06/17/22 17:10

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-3

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
C7 as C7	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
C8 as C8	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
C9-C10	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
C11-C12	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
C13-C14	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
C15-C16	ND		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C17-C18</b>	<b>4.5</b>	<b>J</b>	5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C19-C20</b>	<b>8.2</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C21-C22</b>	<b>13</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C23-C24</b>	<b>25</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C25-C28</b>	<b>80</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C29-C32</b>	<b>120</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C33-C36</b>	<b>73</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C37-C40</b>	<b>41</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C41-C44</b>	<b>16</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>C6-C44</b>	<b>370</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>Diesel Range Organics [C10-C28]</b>	<b>130</b>		5.7	4.3	mg/Kg	☼	06/20/22 18:36	06/23/22 02:40	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>n-Octacosane (Surr)</i>	104		60 - 138				06/20/22 18:36	06/23/22 02:40	1

Client Sample ID: LCW-07-061722

Date Collected: 06/17/22 11:00

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-4

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C7 as C7	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C8 as C8	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C9-C10	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C11-C12	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C13-C14	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C15-C16	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C17-C18	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C19-C20	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C21-C22	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C23-C24	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
<b>C25-C28</b>	<b>8.9</b>		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
<b>C29-C32</b>	<b>9.4</b>		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
<b>C33-C36</b>	<b>6.5</b>		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C37-C40	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
C41-C44	ND		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
<b>C6-C44</b>	<b>30</b>		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
<b>Diesel Range Organics [C10-C28]</b>	<b>10</b>		5.8	4.5	mg/Kg	☼	06/20/22 18:36	06/23/22 03:01	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>n-Octacosane (Surr)</i>	96		60 - 138				06/20/22 18:36	06/23/22 03:01	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: LCW-08/09-061722

Date Collected: 06/17/22 17:15

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-5

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
C7 as C7	ND		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
C8 as C8	ND		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
C9-C10	ND		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C11-C12</b>	<b>8.9</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C13-C14</b>	<b>28</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C15-C16</b>	<b>41</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C17-C18</b>	<b>54</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C19-C20</b>	<b>65</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C21-C22</b>	<b>67</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C23-C24</b>	<b>77</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C25-C28</b>	<b>170</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C29-C32</b>	<b>160</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C33-C36</b>	<b>84</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C37-C40</b>	<b>45</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C41-C44</b>	<b>18</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>C6-C44</b>	<b>800</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1
<b>Diesel Range Organics [C10-C28]</b>	<b>510</b>		5.9	4.6	mg/Kg	☼	06/20/22 18:36	06/23/22 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	104		60 - 138	06/20/22 18:36	06/23/22 03:22	1

Client Sample ID: LCW-10/11-061722

Date Collected: 06/17/22 10:00

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-6

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C7 as C7	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C8 as C8	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C9-C10	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C11-C12	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C13-C14	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C15-C16	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C17-C18	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C19-C20	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C21-C22	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C23-C24	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C25-C28	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C29-C32	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C33-C36	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C37-C40	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
C41-C44	ND		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
<b>C6-C44</b>	<b>15</b>		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1
<b>Diesel Range Organics [C10-C28]</b>	<b>ND</b>		6.7	5.2	mg/Kg	☼	06/20/22 18:36	06/23/22 04:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	108		60 - 138	06/20/22 18:36	06/23/22 04:25	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6 as C6	ND		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
C7 as C7	ND		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
C8 as C8	ND		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
C9-C10	ND		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
C11-C12	ND		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C13-C14</b>	<b>8.8</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C15-C16</b>	<b>25</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C17-C18</b>	<b>47</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C19-C20</b>	<b>68</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C21-C22</b>	<b>74</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C23-C24</b>	<b>91</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C25-C28</b>	<b>180</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C29-C32</b>	<b>180</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C33-C36</b>	<b>100</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C37-C40</b>	<b>55</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C41-C44</b>	<b>21</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>C6-C44</b>	<b>850</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>Diesel Range Organics [C10-C28]</b>	<b>500</b>		6.1	4.7	mg/Kg	✱	06/20/22 18:36	06/23/22 04:46	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>n-Octacosane (Surr)</i>	112		60 - 138				06/20/22 18:36	06/23/22 04:46	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC)

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.3	0.080	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
2,4'-DDE	ND		2.5	1.3	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
2,4'-DDT	ND		1.3	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
<b>4,4'-DDD</b>	<b>1.2</b>	<b>J</b>	1.3	0.63	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
4,4'-DDE	ND		1.3	0.34	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
4,4'-DDT	ND		1.3	0.39	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Aldrin	ND		1.3	0.46	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
alpha-BHC	ND		1.3	0.10	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
alpha-Chlordane	ND		1.3	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
beta-BHC	ND		1.3	0.24	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Chlordane	ND		6.3	0.90	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
cis-Nonachlor	ND		1.3	0.059	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
delta-BHC	ND		1.3	0.19	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Dieldrin	ND		0.25	0.083	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Endosulfan I	ND		1.3	0.15	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Endosulfan II	ND		1.3	0.28	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Endosulfan sulfate	ND		1.3	0.14	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Endrin	ND		1.3	0.24	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Endrin aldehyde	ND		1.3	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
gamma-BHC	ND		1.3	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
gamma-Chlordane	ND		1.3	0.44	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Heptachlor	ND		1.3	0.075	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Heptachlor epoxide	ND		1.3	0.11	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Oxychlordane	ND		1.3	0.19	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
Toxaphene	ND		6.3	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1
trans-Nonachlor	ND		1.3	0.14	ug/Kg	✳	06/23/22 21:11	06/28/22 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	112		20 - 180	06/23/22 21:11	06/28/22 13:30	1
Tetrachloro-m-xylene (Surr)	107		20 - 131	06/23/22 21:11	06/28/22 13:30	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.1	0.074	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
2,4'-DDE	ND		2.3	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
2,4'-DDT	ND		1.1	0.11	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
4,4'-DDD	ND		1.1	0.57	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
4,4'-DDE	ND		1.1	0.31	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
4,4'-DDT	ND		1.1	0.35	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Aldrin	ND		1.1	0.42	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
alpha-BHC	ND		1.1	0.092	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
alpha-Chlordane	ND		1.1	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
beta-BHC	ND		1.1	0.22	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Chlordane	ND		5.7	0.82	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
<b>cis-Nonachlor</b>	<b>2.9</b>		1.1	0.054	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
delta-BHC	ND		1.1	0.17	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Dieldrin	ND		0.23	0.076	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Endosulfan I	ND		1.1	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1

Euofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		1.1	0.26	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Endosulfan sulfate	ND		1.1	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Endrin	ND		1.1	0.22	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Endrin aldehyde	ND		1.1	1.1	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
gamma-BHC	ND		1.1	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
gamma-Chlordane	ND		1.1	0.40	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Heptachlor	ND		1.1	0.068	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Heptachlor epoxide	ND		1.1	0.098	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Oxychlordane	ND		1.1	0.17	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
Toxaphene	ND		5.7	1.1	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
trans-Nonachlor	ND		1.1	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 13:45	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	136		20 - 180				06/23/22 21:11	06/28/22 13:45	1
Tetrachloro-m-xylene (Surr)	83		20 - 131				06/23/22 21:11	06/28/22 13:45	1

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.1	0.072	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
2,4'-DDE	ND		2.3	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
2,4'-DDT	ND		1.1	0.10	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
4,4'-DDD	ND		1.1	0.56	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
<b>4,4'-DDE</b>	<b>0.72</b>	<b>J</b>	1.1	0.30	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
<b>4,4'-DDT</b>	<b>1.9</b>		1.1	0.35	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Aldrin	ND		1.1	0.41	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
alpha-BHC	ND		1.1	0.090	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
alpha-Chlordane	ND		1.1	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
beta-BHC	ND		1.1	0.22	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Chlordane	ND		5.6	0.81	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
cis-Nonachlor	ND		1.1	0.053	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
delta-BHC	ND		1.1	0.17	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Dieldrin	ND		0.23	0.075	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Endosulfan I	ND		1.1	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Endosulfan II	ND		1.1	0.26	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Endosulfan sulfate	ND		1.1	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Endrin	ND		1.1	0.21	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Endrin aldehyde	ND		1.1	1.1	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
gamma-BHC	ND		1.1	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
gamma-Chlordane	ND		1.1	0.40	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Heptachlor	ND		1.1	0.067	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Heptachlor epoxide	ND		1.1	0.096	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Oxychlordane	ND		1.1	0.17	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
Toxaphene	ND		5.6	1.1	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
trans-Nonachlor	ND		1.1	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 13:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	127		20 - 180				06/23/22 21:11	06/28/22 13:59	1
Tetrachloro-m-xylene (Surr)	84		20 - 131				06/23/22 21:11	06/28/22 13:59	1

Euofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC)

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.2	0.075	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
2,4'-DDE	ND		2.3	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
2,4'-DDT	ND		1.2	0.11	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
4,4'-DDD	ND		1.2	0.58	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
4,4'-DDE	ND		1.2	0.32	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
4,4'-DDT	ND		1.2	0.36	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Aldrin	ND		1.2	0.43	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
alpha-BHC	ND		1.2	0.094	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
alpha-Chlordane	ND		1.2	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
beta-BHC	ND		1.2	0.22	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Chlordane	ND		5.8	0.83	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
cis-Nonachlor	ND		1.2	0.055	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
delta-BHC	ND		1.2	0.18	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Dieldrin	ND		0.23	0.077	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Endosulfan I	ND		1.2	0.14	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Endosulfan II	ND		1.2	0.26	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Endosulfan sulfate	ND		1.2	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Endrin	ND		1.2	0.22	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Endrin aldehyde	ND		1.2	1.1	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
gamma-BHC	ND		1.2	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
gamma-Chlordane	ND		1.2	0.41	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Heptachlor	ND		1.2	0.070	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Heptachlor epoxide	ND		1.2	0.10	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Oxychlordane	ND		1.2	0.17	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
Toxaphene	ND		5.8	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1
trans-Nonachlor	ND		1.2	0.13	ug/Kg	✳	06/23/22 21:11	06/28/22 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	109		20 - 180	06/23/22 21:11	06/28/22 14:14	1
Tetrachloro-m-xylene (Surr)	75		20 - 131	06/23/22 21:11	06/28/22 14:14	1

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>2,4'-DDD</b>	<b>0.84</b>	<b>J p</b>	1.2	0.076	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
2,4'-DDE	ND		2.4	1.2	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
2,4'-DDT	ND		1.2	0.11	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
<b>4,4'-DDD</b>	<b>2.5</b>		1.2	0.60	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
<b>4,4'-DDE</b>	<b>2.3</b>	<b>p</b>	1.2	0.32	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
4,4'-DDT	ND	F1	1.2	0.37	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
Aldrin	ND		1.2	0.44	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
alpha-BHC	ND		1.2	0.096	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
alpha-Chlordane	ND		1.2	0.12	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
beta-BHC	ND		1.2	0.23	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
Chlordane	ND		6.0	0.85	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
cis-Nonachlor	ND		1.2	0.056	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
delta-BHC	ND		1.2	0.18	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
Dieldrin	ND		0.24	0.079	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1
Endosulfan I	ND		1.2	0.14	ug/Kg	✳	06/23/22 21:11	06/28/22 14:29	1

Euofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	ND		1.2	0.27	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Endosulfan sulfate	ND		1.2	0.13	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Endrin	ND	F1	1.2	0.23	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Endrin aldehyde	ND		1.2	1.2	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
gamma-BHC	ND		1.2	0.13	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
gamma-Chlordane	ND		1.2	0.42	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Heptachlor	ND		1.2	0.071	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Heptachlor epoxide	ND		1.2	0.10	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Oxychlordane	ND		1.2	0.18	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
Toxaphene	ND		6.0	1.2	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
trans-Nonachlor	ND		1.2	0.13	ug/Kg	☼	06/23/22 21:11	06/28/22 14:29	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	131		20 - 180				06/23/22 21:11	06/28/22 14:29	1
Tetrachloro-m-xylene (Surr)	88		20 - 131				06/23/22 21:11	06/28/22 14:29	1

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.3	0.086	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
2,4'-DDE	ND		2.7	1.4	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
2,4'-DDT	ND		1.3	0.12	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
<b>4,4'-DDD</b>	<b>1.2</b>	<b>J</b>	1.3	0.67	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
<b>4,4'-DDE</b>	<b>1.8</b>		1.3	0.36	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
4,4'-DDT	ND		1.3	0.42	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Aldrin	ND		1.3	0.49	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
alpha-BHC	ND		1.3	0.11	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
alpha-Chlordane	ND		1.3	0.14	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
beta-BHC	ND		1.3	0.26	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Chlordane	ND		6.7	0.96	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
cis-Nonachlor	ND		1.3	0.064	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
delta-BHC	ND		1.3	0.20	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Dieldrin	ND		0.27	0.089	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Endosulfan I	ND		1.3	0.16	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Endosulfan II	ND		1.3	0.31	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Endosulfan sulfate	ND		1.3	0.15	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Endrin	ND		1.3	0.26	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Endrin aldehyde	ND		1.3	1.3	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
gamma-BHC	ND		1.3	0.14	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
gamma-Chlordane	ND		1.3	0.47	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Heptachlor	ND		1.3	0.080	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Heptachlor epoxide	ND		1.3	0.12	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Oxychlordane	ND		1.3	0.20	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
Toxaphene	ND		6.7	1.3	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
trans-Nonachlor	ND		1.3	0.15	ug/Kg	☼	06/23/22 21:11	06/28/22 14:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	121		20 - 180				06/23/22 21:11	06/28/22 14:44	1
Tetrachloro-m-xylene (Surr)	83		20 - 131				06/23/22 21:11	06/28/22 14:44	1

Euofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC)

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>2,4'-DDD</b>	<b>0.76</b>	<b>J p</b>	1.2	0.079	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
2,4'-DDE	ND		2.5	1.3	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
2,4'-DDT	ND		1.2	0.11	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
<b>4,4'-DDD</b>	<b>3.0</b>		1.2	0.61	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
<b>4,4'-DDE</b>	<b>1.4</b>	<b>p</b>	1.2	0.33	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
<b>4,4'-DDT</b>	<b>1.1</b>	<b>J p</b>	1.2	0.38	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Aldrin	ND		1.2	0.45	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
alpha-BHC	ND		1.2	0.099	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
alpha-Chlordane	ND		1.2	0.13	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
beta-BHC	ND		1.2	0.24	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Chlordane	ND		6.2	0.88	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
cis-Nonachlor	ND		1.2	0.058	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
delta-BHC	ND		1.2	0.18	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
<b>Dieldrin</b>	<b>0.18</b>	<b>J p</b>	0.25	0.081	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Endosulfan I	ND		1.2	0.14	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Endosulfan II	ND		1.2	0.28	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Endosulfan sulfate	ND		1.2	0.13	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Endrin	ND		1.2	0.23	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Endrin aldehyde	ND		1.2	1.2	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
gamma-BHC	ND		1.2	0.13	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
gamma-Chlordane	ND		1.2	0.43	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Heptachlor	ND		1.2	0.073	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Heptachlor epoxide	ND		1.2	0.10	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Oxychlordane	ND		1.2	0.18	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
Toxaphene	ND		6.2	1.2	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1
trans-Nonachlor	ND		1.2	0.14	ug/Kg	✱	06/23/22 21:11	06/28/22 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	154		20 - 180	06/23/22 21:11	06/28/22 14:59	1
Tetrachloro-m-xylene (Surr)	86		20 - 131	06/23/22 21:11	06/28/22 14:59	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		13	6.9	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1221	ND		13	6.9	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1232	ND		13	6.9	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1242	ND		13	6.9	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1248	ND		13	6.9	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1254	ND		13	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1260	ND		13	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1262	ND		13	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Aroclor-1268	ND		13	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 09:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	96		20 - 143				06/23/22 21:11	06/27/22 09:22	1
DCB Decachlorobiphenyl (Surr)	90		20 - 180				06/23/22 21:11	06/27/22 09:22	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		11	6.3	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1221	ND		11	6.3	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1232	ND		11	6.3	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1242	ND		11	6.3	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1248	ND		11	6.3	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
<b>Aroclor-1254</b>	<b>39</b>		11	5.7	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1260	ND		11	5.7	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1262	ND		11	5.7	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Aroclor-1268	ND		11	5.7	ug/Kg	✳	06/23/22 21:11	06/27/22 09:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	77		20 - 143				06/23/22 21:11	06/27/22 09:41	1
DCB Decachlorobiphenyl (Surr)	66		20 - 180				06/23/22 21:11	06/27/22 09:41	1

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		11	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1221	ND		11	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1232	ND		11	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1242	ND		11	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1248	ND		11	6.2	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1254	ND		11	5.6	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1260	ND		11	5.6	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1262	ND		11	5.6	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Aroclor-1268	ND		11	5.6	ug/Kg	✳	06/23/22 21:11	06/27/22 10:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	71		20 - 143				06/23/22 21:11	06/27/22 10:00	1
DCB Decachlorobiphenyl (Surr)	66		20 - 180				06/23/22 21:11	06/27/22 10:00	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		12	6.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1221	ND		12	6.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1232	ND		12	6.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1242	ND		12	6.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1248	ND		12	6.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1254	ND		12	5.8	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1260	ND		12	5.8	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1262	ND		12	5.8	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Aroclor-1268	ND		12	5.8	ug/Kg	✱	06/23/22 21:11	06/27/22 10:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	83		20 - 143				06/23/22 21:11	06/27/22 10:19	1
DCB Decachlorobiphenyl (Surr)	68		20 - 180				06/23/22 21:11	06/27/22 10:19	1

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		12	6.6	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1221	ND		12	6.6	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1232	ND		12	6.6	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1242	ND		12	6.6	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1248	ND		12	6.6	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1254	ND		12	5.9	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1260	ND		12	5.9	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1262	ND		12	5.9	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Aroclor-1268	ND		12	5.9	ug/Kg	✱	06/23/22 21:11	06/27/22 10:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	62		20 - 143				06/23/22 21:11	06/27/22 10:38	1
DCB Decachlorobiphenyl (Surr)	63		20 - 180				06/23/22 21:11	06/27/22 10:38	1

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		13	7.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1221	ND		13	7.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1232	ND		13	7.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1242	ND		13	7.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1248	ND		13	7.4	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1254	ND		13	6.7	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1260	ND		13	6.7	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1262	ND		13	6.7	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Aroclor-1268	ND		13	6.7	ug/Kg	✱	06/23/22 21:11	06/27/22 10:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	78		20 - 143				06/23/22 21:11	06/27/22 10:57	1
DCB Decachlorobiphenyl (Surr)	69		20 - 180				06/23/22 21:11	06/27/22 10:57	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND		12	6.8	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1221	ND		12	6.8	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1232	ND		12	6.8	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1242	ND		12	6.8	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1248	ND		12	6.8	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1254	ND		12	6.1	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1260	ND		12	6.1	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1262	ND		12	6.1	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1
Aroclor-1268	ND		12	6.1	ug/Kg	☼	06/23/22 21:11	06/27/22 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	62		20 - 143	06/23/22 21:11	06/27/22 11:16	1
DCB Decachlorobiphenyl (Surr)	63		20 - 180	06/23/22 21:11	06/27/22 11:16	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.510	J	2.49	0.150	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Arsenic	9.75		1.24	0.372	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Barium	180		1.24	0.114	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Cadmium	0.219	J	1.24	0.108	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Cobalt	15.7		1.24	0.183	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Lead	12.6		1.24	0.133	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Nickel	27.1		1.24	0.114	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Selenium	ND		1.24	0.866	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Silver	ND		1.24	0.272	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Thallium	0.216	J	1.24	0.133	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20
Vanadium	60.7		2.49	0.134	mg/Kg	☼	06/28/22 14:30	06/29/22 19:26	20

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.255	J	2.29	0.138	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Arsenic	10.8		1.14	0.342	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Barium	372		1.14	0.105	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Cadmium	0.218	J	1.14	0.0995	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Cobalt	12.4		1.14	0.168	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Lead	16.2		1.14	0.122	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Nickel	24.6		1.14	0.105	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Selenium	ND		1.14	0.796	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Silver	ND		1.14	0.251	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Thallium	0.220	J	1.14	0.122	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20
Vanadium	54.9		2.29	0.124	mg/Kg	☼	06/28/22 14:30	06/29/22 19:30	20

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.318	J	2.30	0.139	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Arsenic	7.65		1.15	0.344	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Barium	142		1.15	0.106	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Cadmium	0.251	J	1.15	0.100	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Cobalt	12.9		1.15	0.169	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Lead	19.9		1.15	0.123	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Nickel	25.2		1.15	0.106	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Selenium	ND		1.15	0.800	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Silver	ND		1.15	0.252	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Thallium	0.182	J	1.15	0.123	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20
Vanadium	56.5		2.30	0.124	mg/Kg	☼	06/28/22 14:30	06/29/22 19:33	20

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.242	J	2.35	0.142	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Arsenic	4.19		1.17	0.351	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20

Euromins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	103		1.17	0.108	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Cadmium	0.138	J	1.17	0.102	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Cobalt	11.4		1.17	0.172	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Lead	7.73		1.17	0.126	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Nickel	21.9		1.17	0.108	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Selenium	ND		1.17	0.817	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Silver	ND		1.17	0.257	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Thallium	0.164	J	1.17	0.126	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20
Vanadium	50.7		2.35	0.127	mg/Kg	☼	06/28/22 14:30	06/29/22 19:36	20

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.224	J	2.37	0.143	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Arsenic	9.82		1.18	0.354	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Barium	119		1.18	0.109	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Cadmium	0.220	J	1.18	0.103	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Cobalt	10.4		1.18	0.174	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Lead	16.1		1.18	0.127	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Nickel	20.0		1.18	0.109	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Selenium	ND		1.18	0.823	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Silver	ND		1.18	0.259	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Thallium	0.158	J	1.18	0.127	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20
Vanadium	46.2		2.37	0.128	mg/Kg	☼	06/28/22 14:30	06/29/22 19:39	20

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.303	J	2.70	0.164	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Arsenic	7.89		1.35	0.404	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Barium	186		1.35	0.124	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Cadmium	0.272	J	1.35	0.118	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Cobalt	15.2		1.35	0.199	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Lead	14.8		1.35	0.145	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Nickel	30.5		1.35	0.124	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Selenium	ND		1.35	0.941	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Silver	ND		1.35	0.296	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Thallium	0.220	J	1.35	0.145	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20
Vanadium	68.5		2.70	0.146	mg/Kg	☼	06/28/22 14:30	06/29/22 19:42	20

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.163	J	2.48	0.150	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Arsenic	7.79		1.24	0.371	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Barium	137		1.24	0.114	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Beryllium	0.785	J	1.24	0.156	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20

Eurolins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.542	J	1.24	0.108	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Chromium	28.3		2.48	0.371	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Cobalt	11.4		1.24	0.182	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Copper	28.0		1.24	0.130	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Lead	11.1		1.24	0.133	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Molybdenum	1.27		1.24	0.131	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Nickel	22.9		1.24	0.114	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Selenium	ND		1.24	0.863	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Silver	ND		1.24	0.272	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Thallium	0.234	J	1.24	0.133	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Vanadium	46.5		2.48	0.134	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20
Zinc	95.0		6.20	1.14	mg/Kg	☼	06/28/22 14:30	06/29/22 19:45	20

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS) - DL

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		6.22	0.784	mg/Kg	✧	06/28/22 14:30	06/29/22 20:17	100
<b>Chromium</b>	<b>29.5</b>		12.4	1.86	mg/Kg	✧	06/28/22 14:30	06/29/22 20:17	100
<b>Copper</b>	<b>35.6</b>		6.22	0.653	mg/Kg	✧	06/28/22 14:30	06/29/22 20:17	100
<b>Molybdenum</b>	<b>0.928</b>	<b>J</b>	6.22	0.659	mg/Kg	✧	06/28/22 14:30	06/29/22 20:17	100
<b>Zinc</b>	<b>84.6</b>		31.1	5.70	mg/Kg	✧	06/28/22 14:30	06/29/22 20:17	100

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		5.72	0.721	mg/Kg	✧	06/28/22 14:30	06/29/22 20:20	100
<b>Chromium</b>	<b>27.5</b>		11.4	1.71	mg/Kg	✧	06/28/22 14:30	06/29/22 20:20	100
<b>Copper</b>	<b>27.2</b>		5.72	0.601	mg/Kg	✧	06/28/22 14:30	06/29/22 20:20	100
<b>Molybdenum</b>	<b>1.33</b>	<b>J</b>	5.72	0.606	mg/Kg	✧	06/28/22 14:30	06/29/22 20:20	100
<b>Zinc</b>	<b>84.4</b>		28.6	5.24	mg/Kg	✧	06/28/22 14:30	06/29/22 20:20	100

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		5.75	0.725	mg/Kg	✧	06/28/22 14:30	06/29/22 20:23	100
<b>Chromium</b>	<b>30.0</b>		11.5	1.72	mg/Kg	✧	06/28/22 14:30	06/29/22 20:23	100
<b>Copper</b>	<b>38.5</b>		5.75	0.604	mg/Kg	✧	06/28/22 14:30	06/29/22 20:23	100
<b>Molybdenum</b>	<b>0.721</b>	<b>J</b>	5.75	0.610	mg/Kg	✧	06/28/22 14:30	06/29/22 20:23	100
<b>Zinc</b>	<b>85.3</b>		28.8	5.27	mg/Kg	✧	06/28/22 14:30	06/29/22 20:23	100

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		5.87	0.739	mg/Kg	✧	06/28/22 14:30	06/29/22 20:27	100
<b>Chromium</b>	<b>24.1</b>		11.7	1.75	mg/Kg	✧	06/28/22 14:30	06/29/22 20:27	100
<b>Copper</b>	<b>20.0</b>		5.87	0.616	mg/Kg	✧	06/28/22 14:30	06/29/22 20:27	100
Molybdenum	ND		5.87	0.622	mg/Kg	✧	06/28/22 14:30	06/29/22 20:27	100
<b>Zinc</b>	<b>59.1</b>		29.3	5.37	mg/Kg	✧	06/28/22 14:30	06/29/22 20:27	100

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		5.91	0.745	mg/Kg	✧	06/28/22 14:30	06/29/22 20:30	100
<b>Chromium</b>	<b>24.5</b>		11.8	1.77	mg/Kg	✧	06/28/22 14:30	06/29/22 20:30	100
<b>Copper</b>	<b>28.0</b>		5.91	0.621	mg/Kg	✧	06/28/22 14:30	06/29/22 20:30	100
<b>Molybdenum</b>	<b>1.39</b>	<b>J</b>	5.91	0.627	mg/Kg	✧	06/28/22 14:30	06/29/22 20:30	100
<b>Zinc</b>	<b>71.0</b>		29.6	5.42	mg/Kg	✧	06/28/22 14:30	06/29/22 20:30	100

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		6.76	0.852	mg/Kg	✧	06/28/22 14:30	06/29/22 20:52	100

Eurolins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS) - DL (Continued)

Client Sample ID: LCW-10/11-061722

Date Collected: 06/17/22 10:00

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-6

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	36.8		13.5	2.02	mg/Kg	✳	06/28/22 14:30	06/29/22 20:52	100
Copper	40.0		6.76	0.710	mg/Kg	✳	06/28/22 14:30	06/29/22 20:52	100
Molybdenum	2.01	J	6.76	0.717	mg/Kg	✳	06/28/22 14:30	06/29/22 20:52	100
Zinc	103		33.8	6.19	mg/Kg	✳	06/28/22 14:30	06/29/22 20:52	100

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 7471A - Mercury (CVAA)

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0705	J	0.109	0.0177	mg/Kg	☼	06/21/22 21:10	06/22/22 20:40	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0383	J	0.0958	0.0155	mg/Kg	☼	06/21/22 21:10	06/22/22 20:42	1

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0410	J	0.0983	0.0159	mg/Kg	☼	06/21/22 21:10	06/22/22 20:44	1

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0316	J	0.0978	0.0158	mg/Kg	☼	06/21/22 21:10	06/22/22 20:50	1

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0784	J	0.0995	0.0161	mg/Kg	☼	06/21/22 21:10	06/22/22 20:52	1

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0442	J	0.115	0.0186	mg/Kg	☼	06/21/22 21:10	06/22/22 20:53	1

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0403	J	0.103	0.0167	mg/Kg	☼	06/21/22 21:10	06/22/22 20:55	1

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## General Chemistry

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.790	B	0.251	0.0121	%	☼		06/30/22 17:53	1
Percent Solids	79.6		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.757	B	0.230	0.0111	%	☼		06/30/22 17:58	1
Percent Solids	87.0		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.973	B	0.227	0.0110	%	☼		06/30/22 18:02	1
Percent Solids	88.3		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.285	B	0.235	0.0113	%	☼		06/30/22 18:07	1
Percent Solids	85.2		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.923	B	0.239	0.0116	%	☼		06/30/22 18:11	1
Percent Solids	83.7		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	1.05	B	0.270	0.0131	%	☼		06/30/22 18:16	1
Percent Solids	74.0		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	1.20	B	0.247	0.0119	%	☼		06/30/22 18:20	1
Percent Solids	81.0		0.100	0.100	%			06/22/22 15:57	1

**Client Sample ID: LCW-02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	72.9		0.100	0.100	%			06/22/22 15:57	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## General Chemistry

Client Sample ID: LCW-04-061522

Date Collected: 06/15/22 13:00

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-9

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86.0		0.100	0.100	%			06/22/22 15:57	1

Client Sample ID: LCW-09-061722

Date Collected: 06/17/22 15:20

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-10

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.1		0.100	0.100	%			06/22/22 15:57	1

Client Sample ID: LCW-11-061622

Date Collected: 06/16/22 12:45

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-11

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	65.6		0.100	0.100	%			06/22/22 15:57	1

Client Sample ID: LCW-12-061622

Date Collected: 06/16/22 11:45

Date Received: 06/17/22 19:20

Lab Sample ID: 570-100189-12

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	62.0		0.100	0.100	%			06/22/22 15:57	1

# Surrogate Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Soil

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-142)	BFB (80-120)	DBFM (80-123)	TOL (80-120)
570-100189-3	LCW-05-061722	126	92	112	101
570-100189-8	LCW-02-061522	127	92	114	101
570-100189-9	LCW-04-061522	124	90	110	101
570-100189-10	LCW-09-061722	125	89	110	100
570-100189-11	LCW-11-061622	124	92	110	101
570-100189-12	LCW-12-061622	104	94	99	97

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-142)	BFB (80-120)	DBFM (80-123)	TOL (80-120)
LCS 570-243789/4	Lab Control Sample	103	97	108	101
LCS 570-244174/4	Lab Control Sample	101	97	106	99
LCSD 570-243789/5	Lab Control Sample Dup	105	98	107	101
LCSD 570-244174/5	Lab Control Sample Dup	102	98	106	99
MB 570-243789/9	Method Blank	104	91	102	100
MB 570-244174/8	Method Blank	106	92	100	98

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Matrix: Soil

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (26-136)	NBZ (16-124)	TPHd14 (36-125)
570-100189-1	LCW-01/02-061522	94	84	87
570-100189-2	LCW-03/04-061522	88	84	88
570-100189-3 - DL	LCW-05-061722	100	55	65
570-100189-3 MS - DL	LCW-05-061722	101	85	78
570-100189-3 MSD - DL	LCW-05-061722	109	90	78
570-100189-4	LCW-07-061722	80	68	80
570-100189-5	LCW-08/09-061722	84	78	81
570-100189-6	LCW-10/11-061722	89	69	88
570-100189-7	LCW-12/13-061722	61	47	72

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# Surrogate Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (26-136)	NBZ (16-124)	TPHd14 (36-125)
LCS 570-244076/2-A	Lab Control Sample	82	73	88
LCSD 570-244076/3-A	Lab Control Sample Dup	80	67	88
MB 570-244076/1-A	Method Blank	82	66	82

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 TPHd14 = p-Terphenyl-d14 (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Soil

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	OTCSN1
		(60-138)
570-100189-1	LCW-01/02-061522	118
570-100189-2	LCW-03/04-061522	116
570-100189-3	LCW-05-061722	104
570-100189-4	LCW-07-061722	96
570-100189-5	LCW-08/09-061722	104
570-100189-6	LCW-10/11-061722	108
570-100189-7	LCW-12/13-061722	112

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	OTCSN1
		(60-138)
570-100039-D-1-A MS	Matrix Spike	111
570-100039-D-1-B MSD	Matrix Spike Duplicate	107
LCS 570-243003/2-A	Lab Control Sample	109
LCSD 570-243003/3-A	Lab Control Sample Dup	111
MB 570-243003/1-A	Method Blank	110

### Surrogate Legend

OTCSN = n-Octacosane (Surr)

## Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Soil

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (20-180)	TCX1 (20-131)
570-100189-1	LCW-01/02-061522	112	107
570-100189-2	LCW-03/04-061522	136	83
570-100189-2 MS	LCW-03/04-061522	147	91
570-100189-2 MSD	LCW-03/04-061522	132	93
570-100189-3	LCW-05-061722	127	84

# Surrogate Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Matrix: Soil

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (20-180)	TCX1 (20-131)
570-100189-4	LCW-07-061722	109	75
570-100189-5	LCW-08/09-061722	131	88
570-100189-5 MS	LCW-08/09-061722	189 S1+	87
570-100189-5 MSD	LCW-08/09-061722	161	85
570-100189-6	LCW-10/11-061722	121	83
570-100189-7	LCW-12/13-061722	154	86

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (20-180)	TCX1 (20-131)
LCS 570-244075/2-A	Lab Control Sample	86	73
LCS 570-244075/4-A	Lab Control Sample	113	98
LCSD 570-244075/3-A	Lab Control Sample Dup	122	96
LCSD 570-244075/5-A	Lab Control Sample Dup	108	92
MB 570-244075/1-A	Method Blank	92	71

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Soil

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (20-143)	DCB1 (20-180)
570-100189-1	LCW-01/02-061522	96	90
570-100189-2	LCW-03/04-061522	77	66
570-100189-3	LCW-05-061722	71	66
570-100189-4	LCW-07-061722	83	68
570-100189-5	LCW-08/09-061722	62	63
570-100189-6	LCW-10/11-061722	78	69
570-100189-6 MS	LCW-10/11-061722	81	74
570-100189-6 MSD	LCW-10/11-061722	81	75
570-100189-7	LCW-12/13-061722	62	63

#### Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

# Surrogate Summary

Client: Anchor QEA LLC

Job ID: 570-100189-1

Project/Site: Los Cerritos Wetlands Restoration Project

**Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

**Matrix: Solid**

**Prep Type: Total/NA**

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (20-143)	DCB1 (20-180)
LCS 570-244075/6-A	Lab Control Sample	91	99
LCSD 570-244075/7-A	Lab Control Sample Dup	83	80
MB 570-244075/1-A	Method Blank	90	100

### Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 570-243789/9**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg			06/23/22 11:26	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg			06/23/22 11:26	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg			06/23/22 11:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg			06/23/22 11:26	1
1,1,2-Trichloroethane	ND		1.0	0.46	ug/Kg			06/23/22 11:26	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg			06/23/22 11:26	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg			06/23/22 11:26	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg			06/23/22 11:26	1
1,2,3-Trichlorobenzene	ND		2.0	1.0	ug/Kg			06/23/22 11:26	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg			06/23/22 11:26	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg			06/23/22 11:26	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg			06/23/22 11:26	1
1,2-Dibromo-3-Chloropropane	ND		10	6.8	ug/Kg			06/23/22 11:26	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg			06/23/22 11:26	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg			06/23/22 11:26	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg			06/23/22 11:26	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg			06/23/22 11:26	1
1,3,5-Trimethylbenzene	ND		2.0	0.27	ug/Kg			06/23/22 11:26	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg			06/23/22 11:26	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg			06/23/22 11:26	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg			06/23/22 11:26	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg			06/23/22 11:26	1
2-Butanone	ND		20	4.5	ug/Kg			06/23/22 11:26	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg			06/23/22 11:26	1
2-Hexanone	ND		20	3.1	ug/Kg			06/23/22 11:26	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg			06/23/22 11:26	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg			06/23/22 11:26	1
Acetone	ND		20	9.8	ug/Kg			06/23/22 11:26	1
Benzene	ND		1.0	0.26	ug/Kg			06/23/22 11:26	1
Bromobenzene	ND		1.0	0.21	ug/Kg			06/23/22 11:26	1
Bromochloromethane	ND		2.0	0.44	ug/Kg			06/23/22 11:26	1
Bromodichloromethane	ND		1.0	0.33	ug/Kg			06/23/22 11:26	1
Bromoform	ND		5.0	1.3	ug/Kg			06/23/22 11:26	1
Bromomethane	ND		20	6.6	ug/Kg			06/23/22 11:26	1
Carbon disulfide	ND		10	0.40	ug/Kg			06/23/22 11:26	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg			06/23/22 11:26	1
Chlorobenzene	ND		1.0	0.27	ug/Kg			06/23/22 11:26	1
Chloroethane	ND		2.0	0.74	ug/Kg			06/23/22 11:26	1
Chloroform	ND		1.0	0.59	ug/Kg			06/23/22 11:26	1
Chloromethane	ND		20	1.5	ug/Kg			06/23/22 11:26	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg			06/23/22 11:26	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg			06/23/22 11:26	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg			06/23/22 11:26	1
Dibromomethane	ND		1.0	0.31	ug/Kg			06/23/22 11:26	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg			06/23/22 11:26	1
Di-isopropyl ether (DIPE)	ND		1.0	0.50	ug/Kg			06/23/22 11:26	1
Ethanol	ND		250	66	ug/Kg			06/23/22 11:26	1
Ethylbenzene	ND		1.0	0.21	ug/Kg			06/23/22 11:26	1

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 570-243789/9**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		1.0	0.24	ug/Kg			06/23/22 11:26	1
Isopropylbenzene	ND		1.0	0.28	ug/Kg			06/23/22 11:26	1
m,p-Xylene	ND		2.0	0.47	ug/Kg			06/23/22 11:26	1
Methylene Chloride	ND		10	3.1	ug/Kg			06/23/22 11:26	1
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg			06/23/22 11:26	1
Naphthalene	ND		10	5.2	ug/Kg			06/23/22 11:26	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg			06/23/22 11:26	1
N-Propylbenzene	ND		2.0	0.26	ug/Kg			06/23/22 11:26	1
o-Xylene	ND		1.0	0.26	ug/Kg			06/23/22 11:26	1
p-Isopropyltoluene	ND		1.0	0.28	ug/Kg			06/23/22 11:26	1
sec-Butylbenzene	ND		1.0	0.27	ug/Kg			06/23/22 11:26	1
Styrene	ND		1.0	0.32	ug/Kg			06/23/22 11:26	1
Tert-amyl-methyl ether (TAME)	ND		1.0	0.19	ug/Kg			06/23/22 11:26	1
tert-Butyl alcohol (TBA)	ND		20	7.0	ug/Kg			06/23/22 11:26	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg			06/23/22 11:26	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg			06/23/22 11:26	1
Toluene	ND		1.0	0.27	ug/Kg			06/23/22 11:26	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg			06/23/22 11:26	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg			06/23/22 11:26	1
Trichloroethene	ND		2.0	0.39	ug/Kg			06/23/22 11:26	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg			06/23/22 11:26	1
Vinyl acetate	ND		10	3.9	ug/Kg			06/23/22 11:26	1
Vinyl chloride	ND		1.0	0.38	ug/Kg			06/23/22 11:26	1
Xylenes, Total	ND		2.0	0.60	ug/Kg			06/23/22 11:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 142		06/23/22 11:26	1
4-Bromofluorobenzene (Surr)	91		80 - 120		06/23/22 11:26	1
Dibromofluoromethane (Surr)	102		80 - 123		06/23/22 11:26	1
Toluene-d8 (Surr)	100		80 - 120		06/23/22 11:26	1

**Lab Sample ID: LCS 570-243789/4**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	53.46		ug/Kg		107	80 - 127
1,1,1-Trichloroethane	50.0	54.63		ug/Kg		109	80 - 127
1,1,1,2,2-Tetrachloroethane	50.0	51.05		ug/Kg		102	80 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.74		ug/Kg		109	78 - 121
1,1,2-Trichloroethane	50.0	52.18		ug/Kg		104	80 - 120
1,1-Dichloroethane	50.0	55.13		ug/Kg		110	75 - 128
1,1-Dichloroethene	50.0	53.30		ug/Kg		107	70 - 131
1,1-Dichloropropene	50.0	53.51		ug/Kg		107	80 - 124
1,2,3-Trichlorobenzene	50.0	49.43		ug/Kg		99	80 - 124
1,2,3-Trichloropropane	50.0	51.60		ug/Kg		103	80 - 125
1,2,4-Trichlorobenzene	50.0	52.14		ug/Kg		104	80 - 131
1,2,4-Trimethylbenzene	50.0	51.89		ug/Kg		104	80 - 126

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 570-243789/4**

**Matrix: Solid**

**Analysis Batch: 243789**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	50.0	47.11		ug/Kg		94	65 - 127
1,2-Dibromoethane	50.0	50.48		ug/Kg		101	80 - 120
1,2-Dichlorobenzene	50.0	51.23		ug/Kg		102	80 - 120
1,2-Dichloroethane	50.0	52.29		ug/Kg		105	80 - 120
1,2-Dichloropropane	50.0	52.29		ug/Kg		105	80 - 120
1,3,5-Trimethylbenzene	50.0	53.37		ug/Kg		107	80 - 123
1,3-Dichlorobenzene	50.0	50.14		ug/Kg		100	80 - 120
1,3-Dichloropropane	50.0	51.23		ug/Kg		102	80 - 120
1,4-Dichlorobenzene	50.0	50.34		ug/Kg		101	80 - 120
2,2-Dichloropropane	50.0	55.57		ug/Kg		111	65 - 150
2-Butanone	50.0	51.16		ug/Kg		102	73 - 129
2-Chlorotoluene	50.0	51.95		ug/Kg		104	80 - 120
2-Hexanone	50.0	48.57		ug/Kg		97	80 - 121
4-Chlorotoluene	50.0	51.56		ug/Kg		103	80 - 120
4-Methyl-2-pentanone	50.0	46.71		ug/Kg		93	80 - 120
Acetone	50.0	47.74		ug/Kg		95	55 - 142
Benzene	50.0	54.00		ug/Kg		108	80 - 120
Bromobenzene	50.0	51.27		ug/Kg		103	80 - 126
Bromochloromethane	50.0	50.41		ug/Kg		101	80 - 120
Bromodichloromethane	50.0	55.78		ug/Kg		112	80 - 120
Bromoform	50.0	53.57		ug/Kg		107	80 - 131
Bromomethane	50.0	60.97		ug/Kg		122	68 - 131
Carbon disulfide	50.0	54.51		ug/Kg		109	70 - 130
Carbon tetrachloride	50.0	58.78		ug/Kg		118	80 - 131
Chlorobenzene	50.0	52.02		ug/Kg		104	80 - 120
Chloroethane	50.0	63.90	*+ me	ug/Kg		128	80 - 124
Chloroform	50.0	54.88		ug/Kg		110	80 - 120
Chloromethane	50.0	78.34	*+	ug/Kg		157	68 - 135
cis-1,2-Dichloroethene	50.0	54.15		ug/Kg		108	80 - 122
cis-1,3-Dichloropropene	50.0	50.81		ug/Kg		102	80 - 125
Dibromochloromethane	50.0	55.47		ug/Kg		111	80 - 124
Dibromomethane	50.0	53.04		ug/Kg		106	80 - 120
Dichlorodifluoromethane	50.0	60.34		ug/Kg		121	60 - 166
Di-isopropyl ether (DIPE)	50.0	53.32		ug/Kg		107	77 - 130
Ethanol	500	697.7	*+ me	ug/Kg		140	66 - 129
Ethylbenzene	50.0	53.14		ug/Kg		106	80 - 120
Ethyl-t-butyl ether (ETBE)	50.0	50.09		ug/Kg		100	80 - 135
Isopropylbenzene	50.0	53.19		ug/Kg		106	80 - 120
m,p-Xylene	100	110.3		ug/Kg		110	80 - 120
Methylene Chloride	50.0	50.86		ug/Kg		102	80 - 120
Methyl-t-Butyl Ether (MTBE)	50.0	49.70		ug/Kg		99	80 - 122
Naphthalene	50.0	44.00		ug/Kg		88	77 - 120
n-Butylbenzene	50.0	49.41		ug/Kg		99	80 - 127
N-Propylbenzene	50.0	53.89		ug/Kg		108	80 - 120
o-Xylene	50.0	52.57		ug/Kg		105	80 - 120
p-Isopropyltoluene	50.0	52.51		ug/Kg		105	80 - 122
sec-Butylbenzene	50.0	51.57		ug/Kg		103	80 - 124
Styrene	50.0	50.35		ug/Kg		101	80 - 120
Tert-amyl-methyl ether (TAME)	50.0	49.52		ug/Kg		99	80 - 122

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 570-243789/4**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
tert-Butyl alcohol (TBA)	250	248.6		ug/Kg		99	80 - 120
tert-Butylbenzene	50.0	51.12		ug/Kg		102	80 - 120
Tetrachloroethene	50.0	52.00		ug/Kg		104	80 - 121
Toluene	50.0	52.50		ug/Kg		105	80 - 120
trans-1,2-Dichloroethene	50.0	53.62		ug/Kg		107	80 - 121
trans-1,3-Dichloropropene	50.0	49.60		ug/Kg		99	80 - 130
Trichloroethene	50.0	51.97		ug/Kg		104	80 - 120
Trichlorofluoromethane	50.0	65.10		ug/Kg		130	75 - 131
Vinyl acetate	50.0	49.69		ug/Kg		99	80 - 133
Vinyl chloride	50.0	66.56	*+ me	ug/Kg		133	80 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		80 - 142
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	108		80 - 123
Toluene-d8 (Surr)	101		80 - 120

**Lab Sample ID: LCSD 570-243789/5**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	54.07		ug/Kg		108	80 - 127	1	20
1,1,1-Trichloroethane	50.0	54.08		ug/Kg		108	80 - 127	1	20
1,1,2,2-Tetrachloroethane	50.0	52.84		ug/Kg		106	80 - 126	3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.52		ug/Kg		109	78 - 121	0	20
1,1,2-Trichloroethane	50.0	53.42		ug/Kg		107	80 - 120	2	20
1,1-Dichloroethane	50.0	54.72		ug/Kg		109	75 - 128	1	20
1,1-Dichloroethene	50.0	53.00		ug/Kg		106	70 - 131	1	20
1,1-Dichloropropene	50.0	53.05		ug/Kg		106	80 - 124	1	20
1,2,3-Trichlorobenzene	50.0	50.28		ug/Kg		101	80 - 124	2	20
1,2,3-Trichloropropane	50.0	53.44		ug/Kg		107	80 - 125	3	20
1,2,4-Trichlorobenzene	50.0	51.76		ug/Kg		104	80 - 131	1	20
1,2,4-Trimethylbenzene	50.0	52.30		ug/Kg		105	80 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	50.19		ug/Kg		100	65 - 127	6	20
1,2-Dibromoethane	50.0	52.96		ug/Kg		106	80 - 120	5	20
1,2-Dichlorobenzene	50.0	52.26		ug/Kg		105	80 - 120	2	20
1,2-Dichloroethane	50.0	53.74		ug/Kg		107	80 - 120	3	20
1,2-Dichloropropane	50.0	53.30		ug/Kg		107	80 - 120	2	20
1,3,5-Trimethylbenzene	50.0	52.89		ug/Kg		106	80 - 123	1	20
1,3-Dichlorobenzene	50.0	50.68		ug/Kg		101	80 - 120	1	20
1,3-Dichloropropane	50.0	52.43		ug/Kg		105	80 - 120	2	20
1,4-Dichlorobenzene	50.0	51.29		ug/Kg		103	80 - 120	2	20
2,2-Dichloropropane	50.0	54.96		ug/Kg		110	65 - 150	1	20
2-Butanone	50.0	50.91		ug/Kg		102	73 - 129	0	20
2-Chlorotoluene	50.0	52.15		ug/Kg		104	80 - 120	0	20
2-Hexanone	50.0	50.21		ug/Kg		100	80 - 121	3	20
4-Chlorotoluene	50.0	51.72		ug/Kg		103	80 - 120	0	20

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 570-243789/5**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone	50.0	47.85		ug/Kg		96	80 - 120	2	20
Acetone	50.0	49.33		ug/Kg		99	55 - 142	3	22
Benzene	50.0	53.95		ug/Kg		108	80 - 120	0	20
Bromobenzene	50.0	51.45		ug/Kg		103	80 - 126	0	20
Bromochloromethane	50.0	51.52		ug/Kg		103	80 - 120	2	20
Bromodichloromethane	50.0	56.76		ug/Kg		114	80 - 120	2	20
Bromoform	50.0	54.66		ug/Kg		109	80 - 131	2	20
Bromomethane	50.0	65.14		ug/Kg		130	68 - 131	7	20
Carbon disulfide	50.0	53.68		ug/Kg		107	70 - 130	2	20
Carbon tetrachloride	50.0	58.63		ug/Kg		117	80 - 131	0	20
Chlorobenzene	50.0	52.19		ug/Kg		104	80 - 120	0	20
Chloroethane	50.0	65.85	*+	ug/Kg		132	80 - 124	3	20
Chloroform	50.0	55.10		ug/Kg		110	80 - 120	0	20
Chloromethane	50.0	80.37	*+	ug/Kg		161	68 - 135	3	20
cis-1,2-Dichloroethene	50.0	54.33		ug/Kg		109	80 - 122	0	20
cis-1,3-Dichloropropene	50.0	51.97		ug/Kg		104	80 - 125	2	20
Dibromochloromethane	50.0	56.19		ug/Kg		112	80 - 124	1	20
Dibromomethane	50.0	54.58		ug/Kg		109	80 - 120	3	20
Dichlorodifluoromethane	50.0	58.44		ug/Kg		117	60 - 166	3	20
Di-isopropyl ether (DIPE)	50.0	54.64		ug/Kg		109	77 - 130	2	20
Ethanol	500	679.5	*+ me	ug/Kg		136	66 - 129	3	22
Ethylbenzene	50.0	52.86		ug/Kg		106	80 - 120	1	20
Ethyl-t-butyl ether (ETBE)	50.0	51.69		ug/Kg		103	80 - 135	3	20
Isopropylbenzene	50.0	52.82		ug/Kg		106	80 - 120	1	20
m,p-Xylene	100	109.5		ug/Kg		109	80 - 120	1	20
Methylene Chloride	50.0	51.07		ug/Kg		102	80 - 120	0	20
Methyl-t-Butyl Ether (MTBE)	50.0	52.19		ug/Kg		104	80 - 122	5	20
Naphthalene	50.0	45.36		ug/Kg		91	77 - 120	3	20
n-Butylbenzene	50.0	48.81		ug/Kg		98	80 - 127	1	20
N-Propylbenzene	50.0	53.30		ug/Kg		107	80 - 120	1	20
o-Xylene	50.0	52.79		ug/Kg		106	80 - 120	0	20
p-Isopropyltoluene	50.0	51.73		ug/Kg		103	80 - 122	2	20
sec-Butylbenzene	50.0	50.90		ug/Kg		102	80 - 124	1	20
Styrene	50.0	50.64		ug/Kg		101	80 - 120	1	20
Tert-amyl-methyl ether (TAME)	50.0	51.43		ug/Kg		103	80 - 122	4	20
tert-Butyl alcohol (TBA)	250	251.9		ug/Kg		101	80 - 120	1	20
tert-Butylbenzene	50.0	50.64		ug/Kg		101	80 - 120	1	20
Tetrachloroethene	50.0	51.32		ug/Kg		103	80 - 121	1	20
Toluene	50.0	52.71		ug/Kg		105	80 - 120	0	20
trans-1,2-Dichloroethene	50.0	53.62		ug/Kg		107	80 - 121	0	20
trans-1,3-Dichloropropene	50.0	51.05		ug/Kg		102	80 - 130	3	20
Trichloroethene	50.0	52.17		ug/Kg		104	80 - 120	0	20
Trichlorofluoromethane	50.0	65.73		ug/Kg		131	75 - 131	1	20
Vinyl acetate	50.0	52.24		ug/Kg		104	80 - 133	5	20
Vinyl chloride	50.0	68.86	*+	ug/Kg		138	80 - 129	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	105		80 - 142

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 570-243789/5**  
**Matrix: Solid**  
**Analysis Batch: 243789**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

<i>Surrogate</i>	<i>%Recovery</i>	<i>LCSD Qualifier</i>	<i>LCSD Limits</i>
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	107		80 - 123
Toluene-d8 (Surr)	101		80 - 120

**Lab Sample ID: MB 570-244174/8**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

<b>Analyte</b>	<b>MB Result</b>	<b>MB Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,1,1,2-Tetrachloroethane	ND		50	15	ug/Kg			06/24/22 11:21	50
1,1,1-Trichloroethane	ND		50	12	ug/Kg			06/24/22 11:21	50
1,1,2,2-Tetrachloroethane	ND		100	27	ug/Kg			06/24/22 11:21	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	23	ug/Kg			06/24/22 11:21	50
1,1,2-Trichloroethane	ND		50	23	ug/Kg			06/24/22 11:21	50
1,1-Dichloroethane	ND		50	14	ug/Kg			06/24/22 11:21	50
1,1-Dichloroethene	ND		50	13	ug/Kg			06/24/22 11:21	50
1,1-Dichloropropene	ND		100	19	ug/Kg			06/24/22 11:21	50
1,2,3-Trichlorobenzene	ND		100	50	ug/Kg			06/24/22 11:21	50
1,2,3-Trichloropropane	ND		100	21	ug/Kg			06/24/22 11:21	50
1,2,4-Trichlorobenzene	ND		100	21	ug/Kg			06/24/22 11:21	50
1,2,4-Trimethylbenzene	ND		100	30	ug/Kg			06/24/22 11:21	50
1,2-Dibromo-3-Chloropropane	ND		500	340	ug/Kg			06/24/22 11:21	50
1,2-Dibromoethane	ND		50	10	ug/Kg			06/24/22 11:21	50
1,2-Dichlorobenzene	ND		50	13	ug/Kg			06/24/22 11:21	50
1,2-Dichloroethane	ND		50	14	ug/Kg			06/24/22 11:21	50
1,2-Dichloropropane	ND		50	14	ug/Kg			06/24/22 11:21	50
1,3,5-Trimethylbenzene	ND		100	13	ug/Kg			06/24/22 11:21	50
1,3-Dichlorobenzene	ND		50	13	ug/Kg			06/24/22 11:21	50
1,3-Dichloropropane	ND		50	15	ug/Kg			06/24/22 11:21	50
1,4-Dichlorobenzene	ND		50	15	ug/Kg			06/24/22 11:21	50
2,2-Dichloropropane	ND		250	14	ug/Kg			06/24/22 11:21	50
2-Butanone	ND		1000	230	ug/Kg			06/24/22 11:21	50
2-Chlorotoluene	ND		50	13	ug/Kg			06/24/22 11:21	50
2-Hexanone	ND		1000	150	ug/Kg			06/24/22 11:21	50
4-Chlorotoluene	ND		50	12	ug/Kg			06/24/22 11:21	50
4-Methyl-2-pentanone	ND		1000	150	ug/Kg			06/24/22 11:21	50
Acetone	ND		1000	490	ug/Kg			06/24/22 11:21	50
Benzene	ND		50	13	ug/Kg			06/24/22 11:21	50
Bromobenzene	ND		50	10	ug/Kg			06/24/22 11:21	50
Bromochloromethane	ND		100	22	ug/Kg			06/24/22 11:21	50
Bromodichloromethane	ND		50	16	ug/Kg			06/24/22 11:21	50
Bromoform	ND		250	66	ug/Kg			06/24/22 11:21	50
Bromomethane	ND		1000	330	ug/Kg			06/24/22 11:21	50
Carbon disulfide	ND		500	20	ug/Kg			06/24/22 11:21	50
Carbon tetrachloride	ND		50	15	ug/Kg			06/24/22 11:21	50
Chlorobenzene	ND		50	13	ug/Kg			06/24/22 11:21	50
Chloroethane	ND		100	37	ug/Kg			06/24/22 11:21	50
Chloroform	ND		50	29	ug/Kg			06/24/22 11:21	50

Eurolins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 570-244174/8**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1000	77	ug/Kg			06/24/22 11:21	50
cis-1,2-Dichloroethene	ND		50	17	ug/Kg			06/24/22 11:21	50
cis-1,3-Dichloropropene	ND		50	17	ug/Kg			06/24/22 11:21	50
Dibromochloromethane	ND		100	14	ug/Kg			06/24/22 11:21	50
Dibromomethane	ND		50	15	ug/Kg			06/24/22 11:21	50
Dichlorodifluoromethane	ND		100	23	ug/Kg			06/24/22 11:21	50
Di-isopropyl ether (DIPE)	ND		50	25	ug/Kg			06/24/22 11:21	50
Ethanol	ND		13000	3300	ug/Kg			06/24/22 11:21	50
Ethylbenzene	ND		50	10	ug/Kg			06/24/22 11:21	50
Ethyl-t-butyl ether (ETBE)	ND		50	12	ug/Kg			06/24/22 11:21	50
Isopropylbenzene	ND		50	14	ug/Kg			06/24/22 11:21	50
m,p-Xylene	ND		100	24	ug/Kg			06/24/22 11:21	50
Methylene Chloride	ND		500	160	ug/Kg			06/24/22 11:21	50
Methyl-t-Butyl Ether (MTBE)	ND		100	9.4	ug/Kg			06/24/22 11:21	50
Naphthalene	ND		500	260	ug/Kg			06/24/22 11:21	50
n-Butylbenzene	ND		50	11	ug/Kg			06/24/22 11:21	50
N-Propylbenzene	ND		100	13	ug/Kg			06/24/22 11:21	50
o-Xylene	ND		50	13	ug/Kg			06/24/22 11:21	50
p-Isopropyltoluene	ND		50	14	ug/Kg			06/24/22 11:21	50
sec-Butylbenzene	ND		50	14	ug/Kg			06/24/22 11:21	50
Styrene	ND		50	16	ug/Kg			06/24/22 11:21	50
Tert-amyl-methyl ether (TAME)	ND		50	9.7	ug/Kg			06/24/22 11:21	50
tert-Butyl alcohol (TBA)	ND		1000	350	ug/Kg			06/24/22 11:21	50
tert-Butylbenzene	ND		50	13	ug/Kg			06/24/22 11:21	50
Tetrachloroethene	ND		50	11	ug/Kg			06/24/22 11:21	50
Toluene	ND		50	13	ug/Kg			06/24/22 11:21	50
trans-1,2-Dichloroethene	ND		50	15	ug/Kg			06/24/22 11:21	50
trans-1,3-Dichloropropene	ND		100	14	ug/Kg			06/24/22 11:21	50
Trichloroethene	ND		100	19	ug/Kg			06/24/22 11:21	50
Trichlorofluoromethane	ND		500	14	ug/Kg			06/24/22 11:21	50
Vinyl acetate	ND		500	200	ug/Kg			06/24/22 11:21	50
Vinyl chloride	ND		50	19	ug/Kg			06/24/22 11:21	50
Xylenes, Total	ND		100	30	ug/Kg			06/24/22 11:21	50

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 142		06/24/22 11:21	50
4-Bromofluorobenzene (Surr)	92		80 - 120		06/24/22 11:21	50
Dibromofluoromethane (Surr)	100		80 - 123		06/24/22 11:21	50
Toluene-d8 (Surr)	98		80 - 120		06/24/22 11:21	50

**Lab Sample ID: LCS 570-244174/4**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	53.94		ug/Kg		108	80 - 127
1,1,1-Trichloroethane	50.0	56.28		ug/Kg		113	80 - 127
1,1,2,2-Tetrachloroethane	50.0	54.79		ug/Kg		110	80 - 126

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 570-244174/4**

**Matrix: Solid**

**Analysis Batch: 244174**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.10		ug/Kg		116	78 - 121
1,1,2-Trichloroethane	50.0	52.67		ug/Kg		105	80 - 120
1,1-Dichloroethane	50.0	56.39		ug/Kg		113	75 - 128
1,1-Dichloroethene	50.0	57.40		ug/Kg		115	70 - 131
1,1-Dichloropropene	50.0	55.94		ug/Kg		112	80 - 124
1,2,3-Trichlorobenzene	50.0	53.09		ug/Kg		106	80 - 124
1,2,3-Trichloropropane	50.0	52.46		ug/Kg		105	80 - 125
1,2,4-Trichlorobenzene	50.0	54.34		ug/Kg		109	80 - 131
1,2,4-Trimethylbenzene	50.0	54.58		ug/Kg		109	80 - 126
1,2-Dibromo-3-Chloropropane	50.0	49.98		ug/Kg		100	65 - 127
1,2-Dibromoethane	50.0	53.20		ug/Kg		106	80 - 120
1,2-Dichlorobenzene	50.0	54.17		ug/Kg		108	80 - 120
1,2-Dichloroethane	50.0	51.78		ug/Kg		104	80 - 120
1,2-Dichloropropane	50.0	53.55		ug/Kg		107	80 - 120
1,3,5-Trimethylbenzene	50.0	53.26		ug/Kg		107	80 - 123
1,3-Dichlorobenzene	50.0	53.03		ug/Kg		106	80 - 120
1,3-Dichloropropane	50.0	53.06		ug/Kg		106	80 - 120
1,4-Dichlorobenzene	50.0	52.93		ug/Kg		106	80 - 120
2,2-Dichloropropane	50.0	57.60		ug/Kg		115	65 - 150
2-Butanone	50.0	56.65		ug/Kg		113	73 - 129
2-Chlorotoluene	50.0	52.07		ug/Kg		104	80 - 120
2-Hexanone	50.0	52.17		ug/Kg		104	80 - 121
4-Chlorotoluene	50.0	53.73		ug/Kg		107	80 - 120
4-Methyl-2-pentanone	50.0	50.86		ug/Kg		102	80 - 120
Acetone	50.0	57.84		ug/Kg		116	55 - 142
Benzene	50.0	54.26		ug/Kg		109	80 - 120
Bromobenzene	50.0	52.60		ug/Kg		105	80 - 126
Bromochloromethane	50.0	49.93		ug/Kg		100	80 - 120
Bromodichloromethane	50.0	57.55		ug/Kg		115	80 - 120
Bromoform	50.0	58.60		ug/Kg		117	80 - 131
Bromomethane	50.0	64.74		ug/Kg		129	68 - 131
Carbon disulfide	50.0	59.34		ug/Kg		119	70 - 130
Carbon tetrachloride	50.0	59.89		ug/Kg		120	80 - 131
Chlorobenzene	50.0	51.45		ug/Kg		103	80 - 120
Chloroethane	50.0	62.50	*+ me	ug/Kg		125	80 - 124
Chloroform	50.0	55.85		ug/Kg		112	80 - 120
Chloromethane	50.0	65.88		ug/Kg		132	68 - 135
cis-1,2-Dichloroethene	50.0	56.79		ug/Kg		114	80 - 122
cis-1,3-Dichloropropene	50.0	53.32		ug/Kg		107	80 - 125
Dibromochloromethane	50.0	56.81		ug/Kg		114	80 - 124
Dibromomethane	50.0	53.55		ug/Kg		107	80 - 120
Dichlorodifluoromethane	50.0	58.73		ug/Kg		117	60 - 166
Di-isopropyl ether (DIPE)	50.0	55.61		ug/Kg		111	77 - 130
Ethanol	500	392.2		ug/Kg		78	66 - 129
Ethylbenzene	50.0	54.31		ug/Kg		109	80 - 120
Ethyl-t-butyl ether (ETBE)	50.0	54.84		ug/Kg		110	80 - 135
Isopropylbenzene	50.0	53.69		ug/Kg		107	80 - 120
m,p-Xylene	100	110.8		ug/Kg		111	80 - 120

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 570-244174/4**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	50.0	52.07		ug/Kg		104	80 - 120
Methyl-t-Butyl Ether (MTBE)	50.0	54.58		ug/Kg		109	80 - 122
Naphthalene	50.0	50.95		ug/Kg		102	77 - 120
n-Butylbenzene	50.0	53.03		ug/Kg		106	80 - 127
N-Propylbenzene	50.0	54.20		ug/Kg		108	80 - 120
o-Xylene	50.0	53.54		ug/Kg		107	80 - 120
p-Isopropyltoluene	50.0	55.00		ug/Kg		110	80 - 122
sec-Butylbenzene	50.0	54.34		ug/Kg		109	80 - 124
Styrene	50.0	51.03		ug/Kg		102	80 - 120
Tert-amyl-methyl ether (TAME)	50.0	52.38		ug/Kg		105	80 - 122
tert-Butyl alcohol (TBA)	250	258.8		ug/Kg		104	80 - 120
tert-Butylbenzene	50.0	52.75		ug/Kg		105	80 - 120
Tetrachloroethene	50.0	53.81		ug/Kg		108	80 - 121
Toluene	50.0	53.80		ug/Kg		108	80 - 120
trans-1,2-Dichloroethene	50.0	56.38		ug/Kg		113	80 - 121
trans-1,3-Dichloropropene	50.0	51.32		ug/Kg		103	80 - 130
Trichloroethene	50.0	54.36		ug/Kg		109	80 - 120
Trichlorofluoromethane	50.0	70.92	*+	ug/Kg		142	75 - 131
Vinyl acetate	50.0	56.69		ug/Kg		113	80 - 133
Vinyl chloride	50.0	64.26		ug/Kg		129	80 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 142
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	106		80 - 123
Toluene-d8 (Surr)	99		80 - 120

**Lab Sample ID: LCSD 570-244174/5**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	55.55		ug/Kg		111	80 - 127	3	20
1,1,1-Trichloroethane	50.0	56.09		ug/Kg		112	80 - 127	0	20
1,1,2,2-Tetrachloroethane	50.0	55.88		ug/Kg		112	80 - 126	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.26		ug/Kg		117	78 - 121	0	20
1,1,2-Trichloroethane	50.0	55.23		ug/Kg		110	80 - 120	5	20
1,1-Dichloroethane	50.0	57.05		ug/Kg		114	75 - 128	1	20
1,1-Dichloroethene	50.0	58.22		ug/Kg		116	70 - 131	1	20
1,1-Dichloropropene	50.0	56.62		ug/Kg		113	80 - 124	1	20
1,2,3-Trichlorobenzene	50.0	54.32		ug/Kg		109	80 - 124	2	20
1,2,3-Trichloropropane	50.0	54.64		ug/Kg		109	80 - 125	4	20
1,2,4-Trichlorobenzene	50.0	54.94		ug/Kg		110	80 - 131	1	20
1,2,4-Trimethylbenzene	50.0	55.15		ug/Kg		110	80 - 126	1	20
1,2-Dibromo-3-Chloropropane	50.0	51.92		ug/Kg		104	65 - 127	4	20
1,2-Dibromoethane	50.0	55.42		ug/Kg		111	80 - 120	4	20
1,2-Dichlorobenzene	50.0	55.49		ug/Kg		111	80 - 120	2	20
1,2-Dichloroethane	50.0	53.51		ug/Kg		107	80 - 120	3	20

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 570-244174/5**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloropropane	50.0	55.11		ug/Kg		110	80 - 120	3	20
1,3,5-Trimethylbenzene	50.0	54.45		ug/Kg		109	80 - 123	2	20
1,3-Dichlorobenzene	50.0	54.24		ug/Kg		108	80 - 120	2	20
1,3-Dichloropropane	50.0	54.91		ug/Kg		110	80 - 120	3	20
1,4-Dichlorobenzene	50.0	54.34		ug/Kg		109	80 - 120	3	20
2,2-Dichloropropane	50.0	57.96		ug/Kg		116	65 - 150	1	20
2-Butanone	50.0	58.95		ug/Kg		118	73 - 129	4	20
2-Chlorotoluene	50.0	53.32		ug/Kg		107	80 - 120	2	20
2-Hexanone	50.0	55.30		ug/Kg		111	80 - 121	6	20
4-Chlorotoluene	50.0	54.50		ug/Kg		109	80 - 120	1	20
4-Methyl-2-pentanone	50.0	53.70		ug/Kg		107	80 - 120	5	20
Acetone	50.0	59.46		ug/Kg		119	55 - 142	3	22
Benzene	50.0	55.46		ug/Kg		111	80 - 120	2	20
Bromobenzene	50.0	54.32		ug/Kg		109	80 - 126	3	20
Bromochloromethane	50.0	51.21		ug/Kg		102	80 - 120	3	20
Bromodichloromethane	50.0	59.03		ug/Kg		118	80 - 120	3	20
Bromoform	50.0	59.11		ug/Kg		118	80 - 131	1	20
Bromomethane	50.0	70.19	*+ me	ug/Kg		140	68 - 131	8	20
Carbon disulfide	50.0	60.28		ug/Kg		121	70 - 130	2	20
Carbon tetrachloride	50.0	59.98		ug/Kg		120	80 - 131	0	20
Chlorobenzene	50.0	53.10		ug/Kg		106	80 - 120	3	20
Chloroethane	50.0	63.80	*+ me	ug/Kg		128	80 - 124	2	20
Chloroform	50.0	56.96		ug/Kg		114	80 - 120	2	20
Chloromethane	50.0	70.34	*+ me	ug/Kg		141	68 - 135	7	20
cis-1,2-Dichloroethene	50.0	57.62		ug/Kg		115	80 - 122	1	20
cis-1,3-Dichloropropene	50.0	54.25		ug/Kg		108	80 - 125	2	20
Dibromochloromethane	50.0	57.85		ug/Kg		116	80 - 124	2	20
Dibromomethane	50.0	55.90		ug/Kg		112	80 - 120	4	20
Dichlorodifluoromethane	50.0	58.51		ug/Kg		117	60 - 166	0	20
Di-isopropyl ether (DIPE)	50.0	56.90		ug/Kg		114	77 - 130	2	20
Ethanol	500	454.4		ug/Kg		91	66 - 129	15	22
Ethylbenzene	50.0	55.33		ug/Kg		111	80 - 120	2	20
Ethyl-t-butyl ether (ETBE)	50.0	56.19		ug/Kg		112	80 - 135	2	20
Isopropylbenzene	50.0	54.87		ug/Kg		110	80 - 120	2	20
m,p-Xylene	100	113.2		ug/Kg		113	80 - 120	2	20
Methylene Chloride	50.0	52.78		ug/Kg		106	80 - 120	1	20
Methyl-t-Butyl Ether (MTBE)	50.0	56.03		ug/Kg		112	80 - 122	3	20
Naphthalene	50.0	52.52		ug/Kg		105	77 - 120	3	20
n-Butylbenzene	50.0	52.95		ug/Kg		106	80 - 127	0	20
N-Propylbenzene	50.0	55.29		ug/Kg		111	80 - 120	2	20
o-Xylene	50.0	54.70		ug/Kg		109	80 - 120	2	20
p-Isopropyltoluene	50.0	54.66		ug/Kg		109	80 - 122	1	20
sec-Butylbenzene	50.0	54.43		ug/Kg		109	80 - 124	0	20
Styrene	50.0	52.32		ug/Kg		105	80 - 120	3	20
Tert-amyl-methyl ether (TAME)	50.0	53.96		ug/Kg		108	80 - 122	3	20
tert-Butyl alcohol (TBA)	250	262.3		ug/Kg		105	80 - 120	1	20
tert-Butylbenzene	50.0	53.18		ug/Kg		106	80 - 120	1	20
Tetrachloroethene	50.0	54.55		ug/Kg		109	80 - 121	1	20
Toluene	50.0	54.68		ug/Kg		109	80 - 120	2	20

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 570-244174/5**  
**Matrix: Solid**  
**Analysis Batch: 244174**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
trans-1,2-Dichloroethene	50.0	56.32		ug/Kg		113	80 - 121	0	20
trans-1,3-Dichloropropene	50.0	53.58		ug/Kg		107	80 - 130	4	20
Trichloroethene	50.0	55.11		ug/Kg		110	80 - 120	1	20
Trichlorofluoromethane	50.0	71.04	*+	ug/Kg		142	75 - 131	0	20
Vinyl acetate	50.0	58.90		ug/Kg		118	80 - 133	4	20
Vinyl chloride	50.0	66.22	*+ me	ug/Kg		132	80 - 129	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	102		80 - 142
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	106		80 - 123
Toluene-d8 (Surr)	99		80 - 120

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

**Lab Sample ID: MB 570-244076/1-A**  
**Matrix: Solid**  
**Analysis Batch: 246665**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 244076**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		5.0	2.0	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
1-Methylphenanthrene	ND		5.0	2.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
2,6-Dimethylnaphthalene	ND		5.0	1.3	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
2-Methylnaphthalene	ND		5.0	1.9	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Acenaphthene	ND		5.0	2.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Acenaphthylene	ND		5.0	2.1	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Anthracene	ND		5.0	1.9	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Benzo[a]anthracene	ND		5.0	2.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Benzo[a]pyrene	ND		5.0	3.0	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Benzo[e]pyrene	ND		5.0	1.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Biphenyl	ND		5.0	1.5	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Chrysene	ND		5.0	1.7	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Dibenz(a,h)anthracene	ND		5.0	1.9	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Fluoranthene	ND		5.0	2.8	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Fluorene	ND		5.0	2.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Naphthalene	ND		5.0	1.4	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Perylene	ND		5.0	2.7	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Phenanthrene	ND		5.0	2.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1
Pyrene	ND		5.0	3.2	ug/Kg		06/23/22 21:28	07/05/22 11:45	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		26 - 136	06/23/22 21:28	07/05/22 11:45	1
Nitrobenzene-d5 (Surr)	66		16 - 124	06/23/22 21:28	07/05/22 11:45	1
p-Terphenyl-d14 (Surr)	82		36 - 125	06/23/22 21:28	07/05/22 11:45	1

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

**Lab Sample ID: LCS 570-244076/2-A**  
**Matrix: Solid**  
**Analysis Batch: 246665**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 244076**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	50.0	48.72		ug/Kg		97	52 - 138
2-Methylnaphthalene	50.0	46.17		ug/Kg		92	43 - 151
Acenaphthene	50.0	47.12		ug/Kg		94	45 - 134
Acenaphthylene	50.0	52.66		ug/Kg		105	45 - 147
Anthracene	50.0	48.91		ug/Kg		98	45 - 139
Benzo[a]anthracene	50.0	52.35		ug/Kg		105	51 - 136
Benzo[a]pyrene	50.0	53.60		ug/Kg		107	44 - 145
Chrysene	50.0	54.62		ug/Kg		109	48 - 134
Dibenz(a,h)anthracene	50.0	51.74		ug/Kg		103	45 - 153
Fluoranthene	50.0	44.94		ug/Kg		90	45 - 137
Fluorene	50.0	46.85		ug/Kg		94	49 - 134
Naphthalene	50.0	46.45		ug/Kg		93	45 - 135
Phenanthrene	50.0	47.46		ug/Kg		95	45 - 133
Pyrene	50.0	57.40		ug/Kg		115	47 - 138

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	82		26 - 136
Nitrobenzene-d5 (Surr)	73		16 - 124
p-Terphenyl-d14 (Surr)	88		36 - 125

**Lab Sample ID: LCSD 570-244076/3-A**  
**Matrix: Solid**  
**Analysis Batch: 246665**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 244076**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	50.0	45.98		ug/Kg		92	52 - 138	6	26
2-Methylnaphthalene	50.0	44.38		ug/Kg		89	43 - 151	4	27
Acenaphthene	50.0	44.15		ug/Kg		88	45 - 134	7	25
Acenaphthylene	50.0	49.03		ug/Kg		98	45 - 147	7	28
Anthracene	50.0	47.08		ug/Kg		94	45 - 139	4	24
Benzo[a]anthracene	50.0	49.82		ug/Kg		100	51 - 136	5	24
Benzo[a]pyrene	50.0	50.79		ug/Kg		102	44 - 145	5	25
Chrysene	50.0	52.32		ug/Kg		105	48 - 134	4	22
Dibenz(a,h)anthracene	50.0	49.28		ug/Kg		99	45 - 153	5	26
Fluoranthene	50.0	44.18		ug/Kg		88	45 - 137	2	24
Fluorene	50.0	44.23		ug/Kg		88	49 - 134	6	27
Naphthalene	50.0	45.78		ug/Kg		92	45 - 135	1	26
Phenanthrene	50.0	45.28		ug/Kg		91	45 - 133	5	27
Pyrene	50.0	55.96		ug/Kg		112	47 - 138	3	27

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		26 - 136
Nitrobenzene-d5 (Surr)	67		16 - 124
p-Terphenyl-d14 (Surr)	88		36 - 125

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) - DL

**Lab Sample ID: 570-100189-3 MS**

**Matrix: Soil**

**Analysis Batch: 246665**

**Client Sample ID: LCW-05-061722**

**Prep Type: Total/NA**

**Prep Batch: 244076**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits		
	Result	Qualifier	Added	Result	Qualifier					%Rec	Limits
1-Methylnaphthalene - DL	ND		56.5	59.66		ug/Kg	⊛	106	34 - 136		
2-Methylnaphthalene - DL	ND		56.5	54.25		ug/Kg	⊛	96	29 - 137		
Acenaphthene - DL	ND		56.5	58.07		ug/Kg	⊛	103	29 - 137		
Acenaphthylene - DL	ND		56.5	62.18		ug/Kg	⊛	110	29 - 131		
Anthracene - DL	ND	F2 F1	56.5	56.16		ug/Kg	⊛	99	26 - 134		
Benzo[a]anthracene - DL	ND	F2 F1	56.5	54.42		ug/Kg	⊛	96	24 - 150		
Benzo[a]pyrene - DL	ND	F2 F1	56.5	49.80		ug/Kg	⊛	88	29 - 149		
Chrysene - DL	ND	F2 F1	56.5	68.23		ug/Kg	⊛	121	25 - 145		
Dibenz(a,h)anthracene - DL	ND	F1	56.5	42.50		ug/Kg	⊛	75	20 - 132		
Fluoranthene - DL	ND	F2 F1	56.5	53.35		ug/Kg	⊛	94	20 - 151		
Fluorene - DL	ND		56.5	57.42		ug/Kg	⊛	102	36 - 132		
Naphthalene - DL	ND		56.5	61.43		ug/Kg	⊛	109	20 - 150		
Phenanthrene - DL	ND	F2 F1	56.5	61.70		ug/Kg	⊛	109	20 - 144		
Pyrene - DL	ND	F2 F1	56.5	61.78		ug/Kg	⊛	109	20 - 150		
		<b>MS MS</b>									
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
2-Fluorobiphenyl (Surr) - DL		101		26 - 136							
Nitrobenzene-d5 (Surr) - DL		85		16 - 124							
p-Terphenyl-d14 (Surr) - DL		78		36 - 125							

**Lab Sample ID: 570-100189-3 MSD**

**Matrix: Soil**

**Analysis Batch: 246665**

**Client Sample ID: LCW-05-061722**

**Prep Type: Total/NA**

**Prep Batch: 244076**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1-Methylnaphthalene - DL	ND		56.4	64.62		ug/Kg	⊛	114	34 - 136	8	29
2-Methylnaphthalene - DL	ND		56.4	56.45		ug/Kg	⊛	100	29 - 137	4	31
Acenaphthene - DL	ND		56.4	55.58		ug/Kg	⊛	98	29 - 137	4	28
Acenaphthylene - DL	ND		56.4	69.84		ug/Kg	⊛	124	29 - 131	12	32
Anthracene - DL	ND	F2 F1	56.4	78.59	F1 F2	ug/Kg	⊛	139	26 - 134	33	27
Benzo[a]anthracene - DL	ND	F2 F1	56.4	109.3	F1 F2	ug/Kg	⊛	194	24 - 150	67	24
Benzo[a]pyrene - DL	ND	F2 F1	56.4	122.6	F1 F2	ug/Kg	⊛	217	29 - 149	84	22
Chrysene - DL	ND	F2 F1	56.4	151.5	F1 F2	ug/Kg	⊛	268	25 - 145	76	28
Dibenz(a,h)anthracene - DL	ND	F1	56.4	ND	F1	ug/Kg	⊛	0	20 - 132	NC	26
Fluoranthene - DL	ND	F2 F1	56.4	173.4	F1 F2	ug/Kg	⊛	307	20 - 151	106	26
Fluorene - DL	ND		56.4	56.06		ug/Kg	⊛	99	36 - 132	2	27
Naphthalene - DL	ND		56.4	61.82		ug/Kg	⊛	110	20 - 150	1	33
Phenanthrene - DL	ND	F2 F1	56.4	86.54	F1 F2	ug/Kg	⊛	153	20 - 144	34	27
Pyrene - DL	ND	F2 F1	56.4	238.2	F1 F2	ug/Kg	⊛	422	20 - 150	118	32
		<b>MSD MSD</b>									
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
2-Fluorobiphenyl (Surr) - DL		109		26 - 136							
Nitrobenzene-d5 (Surr) - DL		90		16 - 124							
p-Terphenyl-d14 (Surr) - DL		78		36 - 125							

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8015B - Diesel Range Organics (DRO) (GC)

**Lab Sample ID: MB 570-243003/1-A**  
**Matrix: Solid**  
**Analysis Batch: 243500**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 243003**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
C6 as C6	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C7 as C7	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C8 as C8	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C9-C10	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C11-C12	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C13-C14	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C15-C16	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C17-C18	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C19-C20	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C21-C22	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C23-C24	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C25-C28	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C29-C32	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C33-C36	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C37-C40	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C41-C44	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
C6-C44	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1
Diesel Range Organics [C10-C28]	ND		5.0	3.8	mg/Kg		06/20/22 18:36	06/22/22 21:03	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>n</i> -Octacosane (Surr)	110		60 - 138	06/20/22 18:36	06/22/22 21:03	1

**Lab Sample ID: LCS 570-243003/2-A**  
**Matrix: Solid**  
**Analysis Batch: 243500**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 243003**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Diesel Range Organics [C10-C28]	400	453.6		mg/Kg		113	80 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
<i>n</i> -Octacosane (Surr)	109		60 - 138

**Lab Sample ID: LCSD 570-243003/3-A**  
**Matrix: Solid**  
**Analysis Batch: 243500**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 243003**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Diesel Range Organics [C10-C28]	400	460.4		mg/Kg		115	80 - 130	1	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
<i>n</i> -Octacosane (Surr)	111		60 - 138

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: 570-100039-D-1-A MS**  
**Matrix: Solid**  
**Analysis Batch: 243500**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 243003**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	10		398	467.4		mg/Kg		115	43 - 165
<b>Surrogate</b>		<b>MS %Recovery</b>		<b>MS Qualifier</b>					<b>Limits</b>
<i>n</i> -Octacosane (Surr)		111							60 - 138

**Lab Sample ID: 570-100039-D-1-B MSD**  
**Matrix: Solid**  
**Analysis Batch: 243500**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 243003**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics [C10-C28]	10		397	435.8		mg/Kg		107	43 - 165	7	35
<b>Surrogate</b>		<b>MSD %Recovery</b>		<b>MSD Qualifier</b>							
<i>n</i> -Octacosane (Surr)		107									60 - 138

## Method: 8081A - Organochlorine Pesticides (GC)

**Lab Sample ID: MB 570-244075/1-A**  
**Matrix: Solid**  
**Analysis Batch: 245037**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.0	0.064	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
2,4'-DDE	ND		2.0	1.0	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
2,4'-DDT	ND		1.0	0.092	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
4,4'-DDD	ND		1.0	0.50	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
4,4'-DDE	ND		1.0	0.27	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
4,4'-DDT	ND		1.0	0.31	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Aldrin	ND		1.0	0.37	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
alpha-BHC	ND		1.0	0.080	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
alpha-Chlordane	ND		1.0	0.10	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
beta-BHC	ND		1.0	0.19	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Chlordane	ND		5.0	0.71	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
cis-Nonachlor	ND		1.0	0.047	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
delta-BHC	ND		1.0	0.15	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Dieldrin	ND		0.20	0.066	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Endosulfan I	ND		1.0	0.12	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Endosulfan II	ND		1.0	0.23	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Endosulfan sulfate	ND		1.0	0.11	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Endrin	ND		1.0	0.19	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Endrin aldehyde	ND		1.0	0.98	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
gamma-BHC	ND		1.0	0.11	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
gamma-Chlordane	ND		1.0	0.35	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Heptachlor	ND		1.0	0.060	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Heptachlor epoxide	ND		1.0	0.085	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Oxychlordane	ND		1.0	0.15	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Toxaphene	ND		5.0	1.0	ug/Kg		06/23/22 21:11	06/28/22 13:12	1

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: MB 570-244075/1-A**  
**Matrix: Solid**  
**Analysis Batch: 245037**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-Nonachlor	ND		1.0	0.11	ug/Kg		06/23/22 21:11	06/28/22 13:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	92		20 - 180				06/23/22 21:11	06/28/22 13:12	1
Tetrachloro-m-xylene (Surr)	71		20 - 131				06/23/22 21:11	06/28/22 13:12	1

**Lab Sample ID: LCS 570-244075/2-A**  
**Matrix: Solid**  
**Analysis Batch: 245099**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDD	5.00	5.801		ug/Kg		116	54 - 150
4,4'-DDE	5.00	5.766		ug/Kg		115	49 - 146
4,4'-DDT	5.00	5.720		ug/Kg		114	52 - 147
Aldrin	5.00	3.446		ug/Kg		69	28 - 116
alpha-BHC	5.00	4.558		ug/Kg		91	44 - 123
alpha-Chlordane	5.00	4.990		ug/Kg		100	48 - 125
beta-BHC	5.00	4.539		ug/Kg		91	48 - 127
delta-BHC	5.00	5.359		ug/Kg		107	10 - 149
Dieldrin	5.00	5.182		ug/Kg		104	48 - 132
Endosulfan I	5.00	4.739		ug/Kg		95	44 - 125
Endosulfan II	5.00	5.201		ug/Kg		104	47 - 136
Endosulfan sulfate	5.00	5.269		ug/Kg		105	46 - 133
Endrin	5.00	5.558		ug/Kg		111	43 - 142
Endrin aldehyde	5.00	4.686		ug/Kg		94	29 - 141
gamma-BHC	5.00	4.765		ug/Kg		95	44 - 126
gamma-Chlordane	5.00	4.691		ug/Kg		94	29 - 153
Heptachlor	5.00	4.794		ug/Kg		96	50 - 123
Heptachlor epoxide	5.00	4.937		ug/Kg		99	49 - 125
Surrogate	%Recovery	Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	86		20 - 180				
Tetrachloro-m-xylene (Surr)	73		20 - 131				

**Lab Sample ID: LCS 570-244075/4-A**  
**Matrix: Solid**  
**Analysis Batch: 245099**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Oxychlordane	5.00	4.316		ug/Kg		86	20 - 144
Surrogate	%Recovery	Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	113		20 - 180				
Tetrachloro-m-xylene (Surr)	98		20 - 131				

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 570-244075/3-A

Matrix: Solid

Analysis Batch: 245099

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 244075

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
4,4'-DDD	5.00	7.050		ug/Kg		141	54 - 150	19	29	
4,4'-DDE	5.00	6.927		ug/Kg		139	49 - 146	18	28	
4,4'-DDT	5.00	6.946		ug/Kg		139	52 - 147	19	32	
Aldrin	5.00	4.289		ug/Kg		86	28 - 116	22	30	
alpha-BHC	5.00	5.441		ug/Kg		109	44 - 123	18	27	
alpha-Chlordane	5.00	5.970		ug/Kg		119	48 - 125	18	27	
beta-BHC	5.00	5.460		ug/Kg		109	48 - 127	18	28	
delta-BHC	5.00	6.426		ug/Kg		129	10 - 149	18	27	
Dieldrin	5.00	6.256		ug/Kg		125	48 - 132	19	28	
Endosulfan I	5.00	5.673		ug/Kg		113	44 - 125	18	29	
Endosulfan II	5.00	6.255		ug/Kg		125	47 - 136	18	29	
Endosulfan sulfate	5.00	6.367		ug/Kg		127	46 - 133	19	28	
Endrin	5.00	6.706		ug/Kg		134	43 - 142	19	27	
Endrin aldehyde	5.00	5.714		ug/Kg		114	29 - 141	20	40	
gamma-BHC	5.00	5.692		ug/Kg		114	44 - 126	18	28	
gamma-Chlordane	5.00	5.628		ug/Kg		113	29 - 153	18	40	
Heptachlor	5.00	5.705		ug/Kg		114	50 - 123	17	28	
Heptachlor epoxide	5.00	5.880		ug/Kg		118	49 - 125	17	28	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	122		20 - 180
Tetrachloro-m-xylene (Surr)	96		20 - 131

Lab Sample ID: LCSD 570-244075/5-A

Matrix: Solid

Analysis Batch: 245099

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 244075

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Oxychlordane	5.00	4.237		ug/Kg		85	20 - 144	2	36	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	108		20 - 180
Tetrachloro-m-xylene (Surr)	92		20 - 131

Lab Sample ID: 570-100189-2 MS

Matrix: Soil

Analysis Batch: 245099

Client Sample ID: LCW-03/04-061522

Prep Type: Total/NA

Prep Batch: 244075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
Oxychlordane	ND		5.74	4.727		ug/Kg	✱	82	10 - 167	

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	147		20 - 180
Tetrachloro-m-xylene (Surr)	91		20 - 131

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: 570-100189-2 MSD**

**Matrix: Soil**  
**Analysis Batch: 245099**

**Client Sample ID: LCW-03/04-061522**

**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Oxychlordane	ND		5.74	4.851		ug/Kg	☼	84	10 - 167	3	40
<b>Surrogate</b>	<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
DCB Decachlorobiphenyl (Surr)	132		20 - 180								
Tetrachloro-m-xylene (Surr)	93		20 - 131								

**Lab Sample ID: 570-100189-5 MS**

**Matrix: Soil**  
**Analysis Batch: 245099**

**Client Sample ID: LCW-08/09-061722**

**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	2.5		5.95	10.86	E	ug/Kg	☼	141	17 - 180		
4,4'-DDE	2.3	p	5.95	12.37	E	ug/Kg	☼	170	20 - 180		
4,4'-DDT	ND	F1	5.95	12.53	E F1	ug/Kg	☼	211	10 - 180		
Aldrin	ND		5.95	6.143		ug/Kg	☼	103	27 - 146		
alpha-BHC	ND		5.95	5.484		ug/Kg	☼	92	33 - 160		
alpha-Chlordane	ND		5.95	7.291		ug/Kg	☼	123	24 - 164		
beta-BHC	ND		5.95	4.971		ug/Kg	☼	84	14 - 178		
delta-BHC	ND		5.95	5.922		ug/Kg	☼	100	10 - 159		
Dieldrin	ND		5.95	7.748		ug/Kg	☼	130	25 - 180		
Endosulfan I	ND		5.95	7.249		ug/Kg	☼	122	31 - 146		
Endosulfan II	ND		5.95	8.051		ug/Kg	☼	135	14 - 176		
Endosulfan sulfate	ND		5.95	7.130		ug/Kg	☼	120	22 - 167		
Endrin	ND	F1	5.95	10.39	E F1	ug/Kg	☼	175	23 - 174		
Endrin aldehyde	ND		5.95	2.979	p	ug/Kg	☼	50	10 - 180		
gamma-BHC	ND		5.95	5.846		ug/Kg	☼	98	27 - 160		
gamma-Chlordane	ND		5.95	7.227		ug/Kg	☼	121	26 - 180		
Heptachlor	ND		5.95	6.168		ug/Kg	☼	104	23 - 144		
Heptachlor epoxide	ND		5.95	7.319		ug/Kg	☼	123	25 - 173		
<b>Surrogate</b>	<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>								
DCB Decachlorobiphenyl (Surr)	189	S1+	20 - 180								
Tetrachloro-m-xylene (Surr)	87		20 - 131								

**Lab Sample ID: 570-100189-5 MSD**

**Matrix: Soil**  
**Analysis Batch: 245099**

**Client Sample ID: LCW-08/09-061722**

**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDD	2.5		5.95	11.33	E	ug/Kg	☼	149	17 - 180	4	40
4,4'-DDE	2.3	p	5.95	11.52	E	ug/Kg	☼	156	20 - 180	7	40
4,4'-DDT	ND	F1	5.95	9.393		ug/Kg	☼	158	10 - 180	29	40
Aldrin	ND		5.95	6.148		ug/Kg	☼	103	27 - 146	0	40
alpha-BHC	ND		5.95	5.926		ug/Kg	☼	100	33 - 160	8	36
alpha-Chlordane	ND		5.95	7.243		ug/Kg	☼	122	24 - 164	1	40
beta-BHC	ND		5.95	5.883		ug/Kg	☼	99	14 - 178	17	40
delta-BHC	ND		5.95	6.321		ug/Kg	☼	106	10 - 159	7	40
Dieldrin	ND		5.95	7.723		ug/Kg	☼	130	25 - 180	0	40

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 570-100189-5 MSD

Matrix: Soil

Analysis Batch: 245099

Client Sample ID: LCW-08/09-061722

Prep Type: Total/NA

Prep Batch: 244075

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Endosulfan I	ND		5.95	7.226		ug/Kg	☼	121	31 - 146	0	34	
Endosulfan II	ND		5.95	8.037		ug/Kg	☼	135	14 - 176	0	40	
Endosulfan sulfate	ND		5.95	6.665		ug/Kg	☼	112	22 - 167	7	40	
Endrin	ND	F1	5.95	9.897	E	ug/Kg	☼	166	23 - 174	5	40	
Endrin aldehyde	ND		5.95	3.350	p	ug/Kg	☼	56	10 - 180	12	40	
gamma-BHC	ND		5.95	6.146		ug/Kg	☼	103	27 - 160	5	40	
gamma-Chlordane	ND		5.95	7.731		ug/Kg	☼	130	26 - 180	7	40	
Heptachlor	ND		5.95	6.175		ug/Kg	☼	104	23 - 144	0	40	
Heptachlor epoxide	ND		5.95	7.535		ug/Kg	☼	127	25 - 173	3	40	
<b>Surrogate</b>	<b>MSD</b>	<b>MSD</b>										
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>									
DCB Decachlorobiphenyl (Surr)	161		20 - 180									
Tetrachloro-m-xylene (Surr)	85		20 - 131									

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 570-244075/1-A

Matrix: Solid

Analysis Batch: 244614

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 244075

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor-1016	ND		10	5.5	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1221	ND		10	5.5	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1232	ND		10	5.5	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1242	ND		10	5.5	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1248	ND		10	5.5	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1254	ND		10	5.0	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1260	ND		10	5.0	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1262	ND		10	5.0	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
Aroclor-1268	ND		10	5.0	ug/Kg		06/23/22 21:11	06/27/22 08:25	1
<b>Surrogate</b>	<b>MB</b>	<b>MB</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
Tetrachloro-m-xylene (Surr)	90		20 - 143				06/23/22 21:11	06/27/22 08:25	1
DCB Decachlorobiphenyl (Surr)	100		20 - 180				06/23/22 21:11	06/27/22 08:25	1

Lab Sample ID: LCS 570-244075/6-A

Matrix: Solid

Analysis Batch: 244614

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 244075

Analyte	Spike	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	RPD
Aroclor-1016	20.0	20.25		ug/Kg		101	47 - 163	
Aroclor-1260	20.0	19.40		ug/Kg		97	57 - 167	
<b>Surrogate</b>	<b>LCS</b>	<b>LCS</b>						
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
Tetrachloro-m-xylene (Surr)	91		20 - 143					
DCB Decachlorobiphenyl (Surr)	99		20 - 180					

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCSD 570-244075/7-A**  
**Matrix: Solid**  
**Analysis Batch: 244614**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Aroclor-1016	20.0	19.36		ug/Kg		97	47 - 163	4	30	
Aroclor-1260	20.0	15.43		ug/Kg		77	57 - 167	23	30	
		<b>LCSD</b>	<b>LCSD</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
Tetrachloro-m-xylene (Surr)	83		20 - 143							
DCB Decachlorobiphenyl (Surr)	80		20 - 180							

**Lab Sample ID: 570-100189-6 MS**  
**Matrix: Soil**  
**Analysis Batch: 244614**

**Client Sample ID: LCW-10/11-061722**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Aroclor-1016	ND		27.0	24.96		ug/Kg	☼	92	20 - 180			
Aroclor-1260	ND		27.0	19.91		ug/Kg	☼	74	20 - 180			
		<b>MS</b>	<b>MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>									
Tetrachloro-m-xylene (Surr)	81		20 - 143									
DCB Decachlorobiphenyl (Surr)	74		20 - 180									

**Lab Sample ID: 570-100189-6 MSD**  
**Matrix: Soil**  
**Analysis Batch: 244614**

**Client Sample ID: LCW-10/11-061722**  
**Prep Type: Total/NA**  
**Prep Batch: 244075**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Aroclor-1016	ND		27.0	25.07		ug/Kg	☼	93	20 - 180	0	40	
Aroclor-1260	ND		27.0	21.12		ug/Kg	☼	78	20 - 180	6	40	
		<b>MSD</b>	<b>MSD</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>									
Tetrachloro-m-xylene (Surr)	81		20 - 143									
DCB Decachlorobiphenyl (Surr)	75		20 - 180									

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 570-245183/1-A**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
Antimony	ND		1.99	0.120	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Arsenic	ND		0.995	0.298	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Barium	ND		0.995	0.0915	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Beryllium	ND		0.995	0.125	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Cadmium	ND		0.995	0.0866	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Chromium	ND		1.99	0.298	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Cobalt	ND		0.995	0.146	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Copper	ND		0.995	0.104	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Lead	ND		0.995	0.106	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	
Molybdenum	ND		0.995	0.105	mg/Kg		06/28/22 14:30	06/28/22 17:44	06/28/22 17:44	20	

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 570-245183/1-A**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.995	0.0915	mg/Kg		06/28/22 14:30	06/28/22 17:44	20
Selenium	ND		0.995	0.693	mg/Kg		06/28/22 14:30	06/28/22 17:44	20
Silver	ND		0.995	0.218	mg/Kg		06/28/22 14:30	06/28/22 17:44	20
Thallium	ND		0.995	0.106	mg/Kg		06/28/22 14:30	06/28/22 17:44	20
Vanadium	ND		1.99	0.107	mg/Kg		06/28/22 14:30	06/28/22 17:44	20
Zinc	ND		4.98	0.911	mg/Kg		06/28/22 14:30	06/28/22 17:44	20

**Lab Sample ID: LCS 570-245183/2-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	50.0	47.02		mg/Kg		94	80 - 120
Arsenic	50.0	47.82		mg/Kg		96	80 - 120
Barium	50.0	52.45		mg/Kg		105	80 - 120
Beryllium	50.0	49.47		mg/Kg		99	80 - 120
Cadmium	50.0	47.70		mg/Kg		95	80 - 120
Chromium	50.0	52.44		mg/Kg		105	80 - 120
Cobalt	50.0	45.50		mg/Kg		91	80 - 120
Copper	50.0	51.34		mg/Kg		103	80 - 120
Lead	50.0	47.31		mg/Kg		95	80 - 120
Molybdenum	50.0	49.31		mg/Kg		99	80 - 120
Nickel	50.0	47.95		mg/Kg		96	80 - 120
Selenium	50.0	45.16		mg/Kg		90	80 - 120
Silver	25.0	24.71		mg/Kg		99	80 - 120
Thallium	50.0	47.58		mg/Kg		95	80 - 120
Vanadium	50.0	45.17		mg/Kg		90	80 - 120
Zinc	50.0	49.33		mg/Kg		99	80 - 120

**Lab Sample ID: LCSD 570-245183/3-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	50.5	48.42		mg/Kg		96	80 - 120	3	20
Arsenic	50.5	47.30		mg/Kg		94	80 - 120	1	20
Barium	50.5	53.19		mg/Kg		105	80 - 120	1	20
Beryllium	50.5	48.24		mg/Kg		96	80 - 120	3	20
Cadmium	50.5	48.11		mg/Kg		95	80 - 120	1	20
Chromium	50.5	51.43		mg/Kg		102	80 - 120	2	20
Cobalt	50.5	47.29		mg/Kg		94	80 - 120	4	20
Copper	50.5	50.17		mg/Kg		99	80 - 120	2	20
Lead	50.5	47.83		mg/Kg		95	80 - 120	1	20
Molybdenum	50.5	49.71		mg/Kg		98	80 - 120	1	20
Nickel	50.5	49.55		mg/Kg		98	80 - 120	3	20
Selenium	50.5	45.59		mg/Kg		90	80 - 120	1	20
Silver	25.3	24.80		mg/Kg		98	80 - 120	0	20
Thallium	50.5	48.02		mg/Kg		95	80 - 120	1	20
Vanadium	50.5	47.69		mg/Kg		94	80 - 120	5	20

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 570-245183/3-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc	50.5	50.25		mg/Kg		100	80 - 120	2	20

**Lab Sample ID: 570-101116-A-1-D MS ^20**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		49.8	41.95		mg/Kg		84	1 - 97		
Arsenic	ND		49.8	43.09		mg/Kg		87	72 - 132		
Barium	5.78		49.8	52.13		mg/Kg		93	50 - 152		
Beryllium	ND		49.8	44.84		mg/Kg		90	61 - 121		
Cadmium	ND		49.8	44.17		mg/Kg		89	85 - 121		
Chromium	0.488	J	49.8	47.54		mg/Kg		95	20 - 182		
Cobalt	0.178	J	49.8	42.23		mg/Kg		85	40 - 166		
Copper	1.88		49.8	47.34		mg/Kg		91	25 - 157		
Lead	19.5		49.8	59.00		mg/Kg		79	62 - 134		
Molybdenum	ND		49.8	43.71		mg/Kg		88	69 - 123		
Nickel	0.797	J	49.8	44.85		mg/Kg		89	46 - 154		
Selenium	ND		49.8	45.70		mg/Kg		92	54 - 132		
Silver	ND		24.9	22.13		mg/Kg		89	78 - 126		
Thallium	ND		49.8	42.40		mg/Kg		85	79 - 115		
Vanadium	1.01	J	49.8	42.72		mg/Kg		84	28 - 178		
Zinc	5.54		49.8	53.75		mg/Kg		97	23 - 173		

**Lab Sample ID: 570-101116-A-1-E MSD ^20**  
**Matrix: Solid**  
**Analysis Batch: 244962**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 245183**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		49.8	42.74		mg/Kg		86	1 - 97	2	39
Arsenic	ND		49.8	44.06		mg/Kg		89	72 - 132	2	13
Barium	5.78		49.8	51.98		mg/Kg		93	50 - 152	0	41
Beryllium	ND		49.8	44.98		mg/Kg		90	61 - 121	0	13
Cadmium	ND		49.8	44.07		mg/Kg		89	85 - 121	0	12
Chromium	0.488	J	49.8	47.17		mg/Kg		94	20 - 182	1	15
Cobalt	0.178	J	49.8	43.13		mg/Kg		86	40 - 166	2	14
Copper	1.88		49.8	47.34		mg/Kg		91	25 - 157	0	22
Lead	19.5		49.8	59.06		mg/Kg		79	62 - 134	0	23
Molybdenum	ND		49.8	43.78		mg/Kg		88	69 - 123	0	13
Nickel	0.797	J	49.8	43.71		mg/Kg		86	46 - 154	3	15
Selenium	ND		49.8	44.16		mg/Kg		89	54 - 132	3	14
Silver	ND		24.9	21.94		mg/Kg		88	78 - 126	1	15
Thallium	ND		49.8	41.17		mg/Kg		83	79 - 115	3	11
Vanadium	1.01	J	49.8	42.59		mg/Kg		84	28 - 178	0	28
Zinc	5.54		49.8	52.62		mg/Kg		95	23 - 173	2	18

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-243397/1-A  
 Matrix: Solid  
 Analysis Batch: 243719

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 243397

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		06/21/22 21:10	06/22/22 20:09	1

Lab Sample ID: LCS 570-243397/2-A  
 Matrix: Solid  
 Analysis Batch: 243719

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 243397

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.4529		mg/Kg		116	85 - 121

Lab Sample ID: LCSD 570-243397/3-A  
 Matrix: Solid  
 Analysis Batch: 243719

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 243397

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.4371		mg/Kg		111	85 - 121	4	10

Lab Sample ID: 570-100135-A-2-C MS  
 Matrix: Solid  
 Analysis Batch: 243719

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 243397

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0343	J	0.408	0.4549		mg/Kg		103	75 - 125

Lab Sample ID: 570-100135-A-2-D MSD  
 Matrix: Solid  
 Analysis Batch: 243719

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 243397

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.0343	J	0.417	0.4623		mg/Kg		103	75 - 125	2	14

## Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-395749/5  
 Matrix: Solid  
 Analysis Batch: 395749

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Quad	0.01180	J	0.200	0.00967	%			06/30/22 17:46	1

Lab Sample ID: LCS 580-395749/6  
 Matrix: Solid  
 Analysis Batch: 395749

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Quad	12.0	11.12		%		93	80 - 120

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 9060A - Organic Carbon, Total (TOC) (Continued)

**Lab Sample ID: LCSD 580-395749/7**  
**Matrix: Solid**  
**Analysis Batch: 395749**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Quad	12.0	11.15		%		93	80 - 120	0	20

**Lab Sample ID: 570-100189-1 MS**  
**Matrix: Soil**  
**Analysis Batch: 395749**

**Client Sample ID: LCW-01/02-061522**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Quad	0.820	B	15.1	15.44		%	✖	97	75 - 125		

**Lab Sample ID: 570-100189-1 MSD**  
**Matrix: Soil**  
**Analysis Batch: 395749**

**Client Sample ID: LCW-01/02-061522**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Quad	0.820	B	15.1	15.72		%	✖	99	75 - 125	2	20

**Lab Sample ID: 570-100189-1 DU**  
**Matrix: Soil**  
**Analysis Batch: 395749**

**Client Sample ID: LCW-01/02-061522**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Organic Carbon - Quad	0.820	B		0.8095		%	✖			1	20

## Method: Moisture - 2540 - Percent Moisture

**Lab Sample ID: 570-100189-1 DU**  
**Matrix: Soil**  
**Analysis Batch: 243634**

**Client Sample ID: LCW-01/02-061522**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Percent Solids	79.6			79.4		%				0.2	10

**Lab Sample ID: 570-100189-11 DU**  
**Matrix: Soil**  
**Analysis Batch: 243634**

**Client Sample ID: LCW-11-061622**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Percent Solids	65.6			65.5		%				0.2	10

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 570-243789/4

Matrix: Solid

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance
								Status
1,1,1,2-Tetrachloroethane	50.0	53.46		ug/Kg	107	80 - 127	72 - 135	
1,1,1-Trichloroethane	50.0	54.63		ug/Kg	109	80 - 127	72 - 135	
1,1,2,2-Tetrachloroethane	50.0	51.05		ug/Kg	102	80 - 126	72 - 134	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.74		ug/Kg	109	78 - 121	71 - 128	
1,1,2-Trichloroethane	50.0	52.18		ug/Kg	104	80 - 120	73 - 127	
1,1-Dichloroethane	50.0	55.13		ug/Kg	110	75 - 128	66 - 137	
1,1-Dichloroethene	50.0	53.30		ug/Kg	107	70 - 131	60 - 141	
1,1-Dichloropropene	50.0	53.51		ug/Kg	107	80 - 124	73 - 131	
1,2,3-Trichlorobenzene	50.0	49.43		ug/Kg	99	80 - 124	73 - 131	
1,2,3-Trichloropropane	50.0	51.60		ug/Kg	103	80 - 125	73 - 133	
1,2,4-Trichlorobenzene	50.0	52.14		ug/Kg	104	80 - 131	72 - 140	
1,2,4-Trimethylbenzene	50.0	51.89		ug/Kg	104	80 - 126	72 - 134	
1,2-Dibromo-3-Chloropropane	50.0	47.11		ug/Kg	94	65 - 127	55 - 137	
1,2-Dibromoethane	50.0	50.48		ug/Kg	101	80 - 120	73 - 127	
1,2-Dichlorobenzene	50.0	51.23		ug/Kg	102	80 - 120	73 - 127	
1,2-Dichloroethane	50.0	52.29		ug/Kg	105	80 - 120	73 - 127	
1,2-Dichloropropane	50.0	52.29		ug/Kg	105	80 - 120	73 - 127	
1,3,5-Trimethylbenzene	50.0	53.37		ug/Kg	107	80 - 123	73 - 130	
1,3-Dichlorobenzene	50.0	50.14		ug/Kg	100	80 - 120	73 - 127	
1,3-Dichloropropane	50.0	51.23		ug/Kg	102	80 - 120	73 - 127	
1,4-Dichlorobenzene	50.0	50.34		ug/Kg	101	80 - 120	73 - 127	
2,2-Dichloropropane	50.0	55.57		ug/Kg	111	65 - 150	51 - 164	
2-Butanone	50.0	51.16		ug/Kg	102	73 - 129	64 - 138	
2-Chlorotoluene	50.0	51.95		ug/Kg	104	80 - 120	73 - 127	
2-Hexanone	50.0	48.57		ug/Kg	97	80 - 121	73 - 128	
4-Chlorotoluene	50.0	51.56		ug/Kg	103	80 - 120	73 - 127	
4-Methyl-2-pentanone	50.0	46.71		ug/Kg	93	80 - 120	73 - 127	
Acetone	50.0	47.74		ug/Kg	95	55 - 142	41 - 157	
Benzene	50.0	54.00		ug/Kg	108	80 - 120	73 - 127	
Bromobenzene	50.0	51.27		ug/Kg	103	80 - 126	72 - 134	
Bromochloromethane	50.0	50.41		ug/Kg	101	80 - 120	73 - 127	
Bromodichloromethane	50.0	55.78		ug/Kg	112	80 - 120	73 - 127	
Bromoform	50.0	53.57		ug/Kg	107	80 - 131	72 - 140	
Bromomethane	50.0	60.97		ug/Kg	122	68 - 131	58 - 142	
Carbon disulfide	50.0	54.51		ug/Kg	109	70 - 130	60 - 140	
Carbon tetrachloride	50.0	58.78		ug/Kg	118	80 - 131	72 - 140	
Chlorobenzene	50.0	52.02		ug/Kg	104	80 - 120	73 - 127	
Chloroethane	50.0	63.90	*+ me	ug/Kg	128	80 - 124	73 - 131	ME
Chloroform	50.0	54.88		ug/Kg	110	80 - 120	73 - 127	
Chloromethane	50.0	78.34	*+	ug/Kg	157	68 - 135	57 - 146	X
cis-1,2-Dichloroethene	50.0	54.15		ug/Kg	108	80 - 122	73 - 129	
cis-1,3-Dichloropropene	50.0	50.81		ug/Kg	102	80 - 125	73 - 133	
Dibromochloromethane	50.0	55.47		ug/Kg	111	80 - 124	73 - 131	
Dibromomethane	50.0	53.04		ug/Kg	106	80 - 120	73 - 127	
Dichlorodifluoromethane	50.0	60.34		ug/Kg	121	60 - 166	42 - 184	
Di-isopropyl ether (DIPE)	50.0	53.32		ug/Kg	107	77 - 130	68 - 139	
Ethanol	500	697.7	*+ me	ug/Kg	140	66 - 129	56 - 140	ME
Ethylbenzene	50.0	53.14		ug/Kg	106	80 - 120	73 - 127	
Ethyl-t-butyl ether (ETBE)	50.0	50.09		ug/Kg	100	80 - 135	71 - 144	

Eurofins Calscience

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-243789/4  
Matrix: Solid

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
Isopropylbenzene	50.0	53.19		ug/Kg	106	80 - 120	73 - 127	
m,p-Xylene	100	110.3		ug/Kg	110	80 - 120	73 - 127	
Methylene Chloride	50.0	50.86		ug/Kg	102	80 - 120	73 - 127	
Methyl-t-Butyl Ether (MTBE)	50.0	49.70		ug/Kg	99	80 - 122	73 - 129	
Naphthalene	50.0	44.00		ug/Kg	88	77 - 120	70 - 127	
n-Butylbenzene	50.0	49.41		ug/Kg	99	80 - 127	72 - 135	
N-Propylbenzene	50.0	53.89		ug/Kg	108	80 - 120	73 - 127	
o-Xylene	50.0	52.57		ug/Kg	105	80 - 120	73 - 127	
p-Isopropyltoluene	50.0	52.51		ug/Kg	105	80 - 122	73 - 129	
sec-Butylbenzene	50.0	51.57		ug/Kg	103	80 - 124	73 - 131	
Styrene	50.0	50.35		ug/Kg	101	80 - 120	73 - 127	
Tert-amyl-methyl ether (TAME)	50.0	49.52		ug/Kg	99	80 - 122	73 - 129	
tert-Butyl alcohol (TBA)	250	248.6		ug/Kg	99	80 - 120	73 - 127	
tert-Butylbenzene	50.0	51.12		ug/Kg	102	80 - 120	73 - 127	
Tetrachloroethene	50.0	52.00		ug/Kg	104	80 - 121	73 - 128	
Toluene	50.0	52.50		ug/Kg	105	80 - 120	73 - 127	
trans-1,2-Dichloroethene	50.0	53.62		ug/Kg	107	80 - 121	73 - 128	
trans-1,3-Dichloropropene	50.0	49.60		ug/Kg	99	80 - 130	72 - 138	
Trichloroethene	50.0	51.97		ug/Kg	104	80 - 120	73 - 127	
Trichlorofluoromethane	50.0	65.10		ug/Kg	130	75 - 131	66 - 140	
Vinyl acetate	50.0	49.69		ug/Kg	99	80 - 133	71 - 142	
Vinyl chloride	50.0	66.56	*+ me	ug/Kg	133	80 - 129	72 - 137	ME

### Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
71	4	3

ME = Marginal Exceedance

X = % Recovery is greater than widest possible limit

Lab Sample ID: LCSD 570-243789/5  
Matrix: Solid

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
1,1,1,2-Tetrachloroethane	50.0	54.07		ug/Kg	108	80 - 127	72 - 135	
1,1,1-Trichloroethane	50.0	54.08		ug/Kg	108	80 - 127	72 - 135	
1,1,2,2-Tetrachloroethane	50.0	52.84		ug/Kg	106	80 - 126	72 - 134	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.52		ug/Kg	109	78 - 121	71 - 128	
1,1,2-Trichloroethane	50.0	53.42		ug/Kg	107	80 - 120	73 - 127	
1,1-Dichloroethane	50.0	54.72		ug/Kg	109	75 - 128	66 - 137	
1,1-Dichloroethene	50.0	53.00		ug/Kg	106	70 - 131	60 - 141	
1,1-Dichloropropene	50.0	53.05		ug/Kg	106	80 - 124	73 - 131	
1,2,3-Trichlorobenzene	50.0	50.28		ug/Kg	101	80 - 124	73 - 131	
1,2,3-Trichloropropane	50.0	53.44		ug/Kg	107	80 - 125	73 - 133	
1,2,4-Trichlorobenzene	50.0	51.76		ug/Kg	104	80 - 131	72 - 140	
1,2,4-Trimethylbenzene	50.0	52.30		ug/Kg	105	80 - 126	72 - 134	
1,2-Dibromo-3-Chloropropane	50.0	50.19		ug/Kg	100	65 - 127	55 - 137	
1,2-Dibromoethane	50.0	52.96		ug/Kg	106	80 - 120	73 - 127	
1,2-Dichlorobenzene	50.0	52.26		ug/Kg	105	80 - 120	73 - 127	

Euromins Calscience

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-243789/5  
 Matrix: Solid

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
1,2-Dichloroethane	50.0	53.74		ug/Kg	107	80 - 120	73 - 127	
1,2-Dichloropropane	50.0	53.30		ug/Kg	107	80 - 120	73 - 127	
1,3,5-Trimethylbenzene	50.0	52.89		ug/Kg	106	80 - 123	73 - 130	
1,3-Dichlorobenzene	50.0	50.68		ug/Kg	101	80 - 120	73 - 127	
1,3-Dichloropropane	50.0	52.43		ug/Kg	105	80 - 120	73 - 127	
1,4-Dichlorobenzene	50.0	51.29		ug/Kg	103	80 - 120	73 - 127	
2,2-Dichloropropane	50.0	54.96		ug/Kg	110	65 - 150	51 - 164	
2-Butanone	50.0	50.91		ug/Kg	102	73 - 129	64 - 138	
2-Chlorotoluene	50.0	52.15		ug/Kg	104	80 - 120	73 - 127	
2-Hexanone	50.0	50.21		ug/Kg	100	80 - 121	73 - 128	
4-Chlorotoluene	50.0	51.72		ug/Kg	103	80 - 120	73 - 127	
4-Methyl-2-pentanone	50.0	47.85		ug/Kg	96	80 - 120	73 - 127	
Acetone	50.0	49.33		ug/Kg	99	55 - 142	41 - 157	
Benzene	50.0	53.95		ug/Kg	108	80 - 120	73 - 127	
Bromobenzene	50.0	51.45		ug/Kg	103	80 - 126	72 - 134	
Bromochloromethane	50.0	51.52		ug/Kg	103	80 - 120	73 - 127	
Bromodichloromethane	50.0	56.76		ug/Kg	114	80 - 120	73 - 127	
Bromoform	50.0	54.66		ug/Kg	109	80 - 131	72 - 140	
Bromomethane	50.0	65.14		ug/Kg	130	68 - 131	58 - 142	
Carbon disulfide	50.0	53.68		ug/Kg	107	70 - 130	60 - 140	
Carbon tetrachloride	50.0	58.63		ug/Kg	117	80 - 131	72 - 140	
Chlorobenzene	50.0	52.19		ug/Kg	104	80 - 120	73 - 127	
Chloroethane	50.0	65.85	*+	ug/Kg	132	80 - 124	73 - 131	X
Chloroform	50.0	55.10		ug/Kg	110	80 - 120	73 - 127	
Chloromethane	50.0	80.37	*+	ug/Kg	161	68 - 135	57 - 146	X
cis-1,2-Dichloroethene	50.0	54.33		ug/Kg	109	80 - 122	73 - 129	
cis-1,3-Dichloropropene	50.0	51.97		ug/Kg	104	80 - 125	73 - 133	
Dibromochloromethane	50.0	56.19		ug/Kg	112	80 - 124	73 - 131	
Dibromomethane	50.0	54.58		ug/Kg	109	80 - 120	73 - 127	
Dichlorodifluoromethane	50.0	58.44		ug/Kg	117	60 - 166	42 - 184	
Di-isopropyl ether (DIPE)	50.0	54.64		ug/Kg	109	77 - 130	68 - 139	
Ethanol	500	679.5	*+ me	ug/Kg	136	66 - 129	56 - 140	ME
Ethylbenzene	50.0	52.86		ug/Kg	106	80 - 120	73 - 127	
Ethyl-t-butyl ether (ETBE)	50.0	51.69		ug/Kg	103	80 - 135	71 - 144	
Isopropylbenzene	50.0	52.82		ug/Kg	106	80 - 120	73 - 127	
m,p-Xylene	100	109.5		ug/Kg	109	80 - 120	73 - 127	
Methylene Chloride	50.0	51.07		ug/Kg	102	80 - 120	73 - 127	
Methyl-t-Butyl Ether (MTBE)	50.0	52.19		ug/Kg	104	80 - 122	73 - 129	
Naphthalene	50.0	45.36		ug/Kg	91	77 - 120	70 - 127	
n-Butylbenzene	50.0	48.81		ug/Kg	98	80 - 127	72 - 135	
N-Propylbenzene	50.0	53.30		ug/Kg	107	80 - 120	73 - 127	
o-Xylene	50.0	52.79		ug/Kg	106	80 - 120	73 - 127	
p-Isopropyltoluene	50.0	51.73		ug/Kg	103	80 - 122	73 - 129	
sec-Butylbenzene	50.0	50.90		ug/Kg	102	80 - 124	73 - 131	
Styrene	50.0	50.64		ug/Kg	101	80 - 120	73 - 127	
Tert-amyl-methyl ether (TAME)	50.0	51.43		ug/Kg	103	80 - 122	73 - 129	
tert-Butyl alcohol (TBA)	250	251.9		ug/Kg	101	80 - 120	73 - 127	
tert-Butylbenzene	50.0	50.64		ug/Kg	101	80 - 120	73 - 127	
Tetrachloroethene	50.0	51.32		ug/Kg	103	80 - 121	73 - 128	
Toluene	50.0	52.71		ug/Kg	105	80 - 120	73 - 127	

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-243789/5  
Matrix: Solid

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
trans-1,2-Dichloroethene	50.0	53.62		ug/Kg	107	80 - 121	73 - 128	
trans-1,3-Dichloropropene	50.0	51.05		ug/Kg	102	80 - 130	72 - 138	
Trichloroethene	50.0	52.17		ug/Kg	104	80 - 120	73 - 127	
Trichlorofluoromethane	50.0	65.73		ug/Kg	131	75 - 131	66 - 140	
Vinyl acetate	50.0	52.24		ug/Kg	104	80 - 133	71 - 142	
Vinyl chloride	50.0	68.86	*+	ug/Kg	138	80 - 129	72 - 137	X

### Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
71	4	1

ME = Marginal Exceedance

X = % Recovery is greater than widest possible limit

Lab Sample ID: LCS 570-244174/4  
Matrix: Solid

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
1,1,1,2-Tetrachloroethane	50.0	53.94		ug/Kg	108	80 - 127	72 - 135	
1,1,1-Trichloroethane	50.0	56.28		ug/Kg	113	80 - 127	72 - 135	
1,1,2,2-Tetrachloroethane	50.0	54.79		ug/Kg	110	80 - 126	72 - 134	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.10		ug/Kg	116	78 - 121	71 - 128	
1,1,2-Trichloroethane	50.0	52.67		ug/Kg	105	80 - 120	73 - 127	
1,1-Dichloroethane	50.0	56.39		ug/Kg	113	75 - 128	66 - 137	
1,1-Dichloroethene	50.0	57.40		ug/Kg	115	70 - 131	60 - 141	
1,1-Dichloropropene	50.0	55.94		ug/Kg	112	80 - 124	73 - 131	
1,2,3-Trichlorobenzene	50.0	53.09		ug/Kg	106	80 - 124	73 - 131	
1,2,3-Trichloropropane	50.0	52.46		ug/Kg	105	80 - 125	73 - 133	
1,2,4-Trichlorobenzene	50.0	54.34		ug/Kg	109	80 - 131	72 - 140	
1,2,4-Trimethylbenzene	50.0	54.58		ug/Kg	109	80 - 126	72 - 134	
1,2-Dibromo-3-Chloropropane	50.0	49.98		ug/Kg	100	65 - 127	55 - 137	
1,2-Dibromoethane	50.0	53.20		ug/Kg	106	80 - 120	73 - 127	
1,2-Dichlorobenzene	50.0	54.17		ug/Kg	108	80 - 120	73 - 127	
1,2-Dichloroethane	50.0	51.78		ug/Kg	104	80 - 120	73 - 127	
1,2-Dichloropropane	50.0	53.55		ug/Kg	107	80 - 120	73 - 127	
1,3,5-Trimethylbenzene	50.0	53.26		ug/Kg	107	80 - 123	73 - 130	
1,3-Dichlorobenzene	50.0	53.03		ug/Kg	106	80 - 120	73 - 127	
1,3-Dichloropropane	50.0	53.06		ug/Kg	106	80 - 120	73 - 127	
1,4-Dichlorobenzene	50.0	52.93		ug/Kg	106	80 - 120	73 - 127	
2,2-Dichloropropane	50.0	57.60		ug/Kg	115	65 - 150	51 - 164	
2-Butanone	50.0	56.65		ug/Kg	113	73 - 129	64 - 138	
2-Chlorotoluene	50.0	52.07		ug/Kg	104	80 - 120	73 - 127	
2-Hexanone	50.0	52.17		ug/Kg	104	80 - 121	73 - 128	
4-Chlorotoluene	50.0	53.73		ug/Kg	107	80 - 120	73 - 127	
4-Methyl-2-pentanone	50.0	50.86		ug/Kg	102	80 - 120	73 - 127	
Acetone	50.0	57.84		ug/Kg	116	55 - 142	41 - 157	
Benzene	50.0	54.26		ug/Kg	109	80 - 120	73 - 127	
Bromobenzene	50.0	52.60		ug/Kg	105	80 - 126	72 - 134	
Bromochloromethane	50.0	49.93		ug/Kg	100	80 - 120	73 - 127	

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-244174/4  
Matrix: Solid

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
Bromodichloromethane	50.0	57.55		ug/Kg	115	80 - 120	73 - 127	
Bromoform	50.0	58.60		ug/Kg	117	80 - 131	72 - 140	
Bromomethane	50.0	64.74		ug/Kg	129	68 - 131	58 - 142	
Carbon disulfide	50.0	59.34		ug/Kg	119	70 - 130	60 - 140	
Carbon tetrachloride	50.0	59.89		ug/Kg	120	80 - 131	72 - 140	
Chlorobenzene	50.0	51.45		ug/Kg	103	80 - 120	73 - 127	
Chloroethane	50.0	62.50	*+ me	ug/Kg	125	80 - 124	73 - 131	ME
Chloroform	50.0	55.85		ug/Kg	112	80 - 120	73 - 127	
Chloromethane	50.0	65.88		ug/Kg	132	68 - 135	57 - 146	
cis-1,2-Dichloroethene	50.0	56.79		ug/Kg	114	80 - 122	73 - 129	
cis-1,3-Dichloropropene	50.0	53.32		ug/Kg	107	80 - 125	73 - 133	
Dibromochloromethane	50.0	56.81		ug/Kg	114	80 - 124	73 - 131	
Dibromomethane	50.0	53.55		ug/Kg	107	80 - 120	73 - 127	
Dichlorodifluoromethane	50.0	58.73		ug/Kg	117	60 - 166	42 - 184	
Di-isopropyl ether (DIPE)	50.0	55.61		ug/Kg	111	77 - 130	68 - 139	
Ethanol	500	392.2		ug/Kg	78	66 - 129	56 - 140	
Ethylbenzene	50.0	54.31		ug/Kg	109	80 - 120	73 - 127	
Ethyl-t-butyl ether (ETBE)	50.0	54.84		ug/Kg	110	80 - 135	71 - 144	
Isopropylbenzene	50.0	53.69		ug/Kg	107	80 - 120	73 - 127	
m,p-Xylene	100	110.8		ug/Kg	111	80 - 120	73 - 127	
Methylene Chloride	50.0	52.07		ug/Kg	104	80 - 120	73 - 127	
Methyl-t-Butyl Ether (MTBE)	50.0	54.58		ug/Kg	109	80 - 122	73 - 129	
Naphthalene	50.0	50.95		ug/Kg	102	77 - 120	70 - 127	
n-Butylbenzene	50.0	53.03		ug/Kg	106	80 - 127	72 - 135	
N-Propylbenzene	50.0	54.20		ug/Kg	108	80 - 120	73 - 127	
o-Xylene	50.0	53.54		ug/Kg	107	80 - 120	73 - 127	
p-Isopropyltoluene	50.0	55.00		ug/Kg	110	80 - 122	73 - 129	
sec-Butylbenzene	50.0	54.34		ug/Kg	109	80 - 124	73 - 131	
Styrene	50.0	51.03		ug/Kg	102	80 - 120	73 - 127	
Tert-amyl-methyl ether (TAME)	50.0	52.38		ug/Kg	105	80 - 122	73 - 129	
tert-Butyl alcohol (TBA)	250	258.8		ug/Kg	104	80 - 120	73 - 127	
tert-Butylbenzene	50.0	52.75		ug/Kg	105	80 - 120	73 - 127	
Tetrachloroethene	50.0	53.81		ug/Kg	108	80 - 121	73 - 128	
Toluene	50.0	53.80		ug/Kg	108	80 - 120	73 - 127	
trans-1,2-Dichloroethene	50.0	56.38		ug/Kg	113	80 - 121	73 - 128	
trans-1,3-Dichloropropene	50.0	51.32		ug/Kg	103	80 - 130	72 - 138	
Trichloroethene	50.0	54.36		ug/Kg	109	80 - 120	73 - 127	
Trichlorofluoromethane	50.0	70.92	*+	ug/Kg	142	75 - 131	66 - 140	X
Vinyl acetate	50.0	56.69		ug/Kg	113	80 - 133	71 - 142	
Vinyl chloride	50.0	64.26		ug/Kg	129	80 - 129	72 - 137	

### Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
71	4	1

ME = Marginal Exceedance

X = % Recovery is greater than widest possible limit

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-244174/5

Matrix: Solid

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance
								Status
1,1,1,2-Tetrachloroethane	50.0	55.55		ug/Kg	111	80 - 127	72 - 135	
1,1,1-Trichloroethane	50.0	56.09		ug/Kg	112	80 - 127	72 - 135	
1,1,2,2-Tetrachloroethane	50.0	55.88		ug/Kg	112	80 - 126	72 - 134	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.26		ug/Kg	117	78 - 121	71 - 128	
1,1,2-Trichloroethane	50.0	55.23		ug/Kg	110	80 - 120	73 - 127	
1,1-Dichloroethane	50.0	57.05		ug/Kg	114	75 - 128	66 - 137	
1,1-Dichloroethene	50.0	58.22		ug/Kg	116	70 - 131	60 - 141	
1,1-Dichloropropene	50.0	56.62		ug/Kg	113	80 - 124	73 - 131	
1,2,3-Trichlorobenzene	50.0	54.32		ug/Kg	109	80 - 124	73 - 131	
1,2,3-Trichloropropane	50.0	54.64		ug/Kg	109	80 - 125	73 - 133	
1,2,4-Trichlorobenzene	50.0	54.94		ug/Kg	110	80 - 131	72 - 140	
1,2,4-Trimethylbenzene	50.0	55.15		ug/Kg	110	80 - 126	72 - 134	
1,2-Dibromo-3-Chloropropane	50.0	51.92		ug/Kg	104	65 - 127	55 - 137	
1,2-Dibromoethane	50.0	55.42		ug/Kg	111	80 - 120	73 - 127	
1,2-Dichlorobenzene	50.0	55.49		ug/Kg	111	80 - 120	73 - 127	
1,2-Dichloroethane	50.0	53.51		ug/Kg	107	80 - 120	73 - 127	
1,2-Dichloropropane	50.0	55.11		ug/Kg	110	80 - 120	73 - 127	
1,3,5-Trimethylbenzene	50.0	54.45		ug/Kg	109	80 - 123	73 - 130	
1,3-Dichlorobenzene	50.0	54.24		ug/Kg	108	80 - 120	73 - 127	
1,3-Dichloropropane	50.0	54.91		ug/Kg	110	80 - 120	73 - 127	
1,4-Dichlorobenzene	50.0	54.34		ug/Kg	109	80 - 120	73 - 127	
2,2-Dichloropropane	50.0	57.96		ug/Kg	116	65 - 150	51 - 164	
2-Butanone	50.0	58.95		ug/Kg	118	73 - 129	64 - 138	
2-Chlorotoluene	50.0	53.32		ug/Kg	107	80 - 120	73 - 127	
2-Hexanone	50.0	55.30		ug/Kg	111	80 - 121	73 - 128	
4-Chlorotoluene	50.0	54.50		ug/Kg	109	80 - 120	73 - 127	
4-Methyl-2-pentanone	50.0	53.70		ug/Kg	107	80 - 120	73 - 127	
Acetone	50.0	59.46		ug/Kg	119	55 - 142	41 - 157	
Benzene	50.0	55.46		ug/Kg	111	80 - 120	73 - 127	
Bromobenzene	50.0	54.32		ug/Kg	109	80 - 126	72 - 134	
Bromochloromethane	50.0	51.21		ug/Kg	102	80 - 120	73 - 127	
Bromodichloromethane	50.0	59.03		ug/Kg	118	80 - 120	73 - 127	
Bromoform	50.0	59.11		ug/Kg	118	80 - 131	72 - 140	
Bromomethane	50.0	70.19	*+ me	ug/Kg	140	68 - 131	58 - 142	ME
Carbon disulfide	50.0	60.28		ug/Kg	121	70 - 130	60 - 140	
Carbon tetrachloride	50.0	59.98		ug/Kg	120	80 - 131	72 - 140	
Chlorobenzene	50.0	53.10		ug/Kg	106	80 - 120	73 - 127	
Chloroethane	50.0	63.80	*+ me	ug/Kg	128	80 - 124	73 - 131	ME
Chloroform	50.0	56.96		ug/Kg	114	80 - 120	73 - 127	
Chloromethane	50.0	70.34	*+ me	ug/Kg	141	68 - 135	57 - 146	ME
cis-1,2-Dichloroethene	50.0	57.62		ug/Kg	115	80 - 122	73 - 129	
cis-1,3-Dichloropropene	50.0	54.25		ug/Kg	108	80 - 125	73 - 133	
Dibromochloromethane	50.0	57.85		ug/Kg	116	80 - 124	73 - 131	
Dibromomethane	50.0	55.90		ug/Kg	112	80 - 120	73 - 127	
Dichlorodifluoromethane	50.0	58.51		ug/Kg	117	60 - 166	42 - 184	
Di-isopropyl ether (DIPE)	50.0	56.90		ug/Kg	114	77 - 130	68 - 139	
Ethanol	500	454.4		ug/Kg	91	66 - 129	56 - 140	
Ethylbenzene	50.0	55.33		ug/Kg	111	80 - 120	73 - 127	
Ethyl-t-butyl ether (ETBE)	50.0	56.19		ug/Kg	112	80 - 135	71 - 144	

Euofins Calscience

# Marginal Exceedance (ME) Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-244174/5  
 Matrix: Solid

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance Status
Isopropylbenzene	50.0	54.87		ug/Kg	110	80 - 120	73 - 127	
m,p-Xylene	100	113.2		ug/Kg	113	80 - 120	73 - 127	
Methylene Chloride	50.0	52.78		ug/Kg	106	80 - 120	73 - 127	
Methyl-t-Butyl Ether (MTBE)	50.0	56.03		ug/Kg	112	80 - 122	73 - 129	
Naphthalene	50.0	52.52		ug/Kg	105	77 - 120	70 - 127	
n-Butylbenzene	50.0	52.95		ug/Kg	106	80 - 127	72 - 135	
N-Propylbenzene	50.0	55.29		ug/Kg	111	80 - 120	73 - 127	
o-Xylene	50.0	54.70		ug/Kg	109	80 - 120	73 - 127	
p-Isopropyltoluene	50.0	54.66		ug/Kg	109	80 - 122	73 - 129	
sec-Butylbenzene	50.0	54.43		ug/Kg	109	80 - 124	73 - 131	
Styrene	50.0	52.32		ug/Kg	105	80 - 120	73 - 127	
Tert-amyl-methyl ether (TAME)	50.0	53.96		ug/Kg	108	80 - 122	73 - 129	
tert-Butyl alcohol (TBA)	250	262.3		ug/Kg	105	80 - 120	73 - 127	
tert-Butylbenzene	50.0	53.18		ug/Kg	106	80 - 120	73 - 127	
Tetrachloroethene	50.0	54.55		ug/Kg	109	80 - 121	73 - 128	
Toluene	50.0	54.68		ug/Kg	109	80 - 120	73 - 127	
trans-1,2-Dichloroethene	50.0	56.32		ug/Kg	113	80 - 121	73 - 128	
trans-1,3-Dichloropropene	50.0	53.58		ug/Kg	107	80 - 130	72 - 138	
Trichloroethene	50.0	55.11		ug/Kg	110	80 - 120	73 - 127	
Trichlorofluoromethane	50.0	71.04	*+	ug/Kg	142	75 - 131	66 - 140	X
Vinyl acetate	50.0	58.90		ug/Kg	118	80 - 133	71 - 142	
Vinyl chloride	50.0	66.22	*+ me	ug/Kg	132	80 - 129	72 - 137	ME

### Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
71	4	4

ME = Marginal Exceedance

X = % Recovery is greater than widest possible limit

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## GC/MS VOA

### Prep Batch: 242628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-12	LCW-12-061622	Total/NA	Soil	5035	

### Prep Batch: 242635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-3	LCW-05-061722	Total/NA	Soil	5035	
570-100189-8	LCW-02-061522	Total/NA	Soil	5035	
570-100189-9	LCW-04-061522	Total/NA	Soil	5035	
570-100189-10	LCW-09-061722	Total/NA	Soil	5035	
570-100189-11	LCW-11-061622	Total/NA	Soil	5035	

### Analysis Batch: 243789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-3	LCW-05-061722	Total/NA	Soil	8260B	242635
570-100189-8	LCW-02-061522	Total/NA	Soil	8260B	242635
570-100189-9	LCW-04-061522	Total/NA	Soil	8260B	242635
570-100189-10	LCW-09-061722	Total/NA	Soil	8260B	242635
570-100189-11	LCW-11-061622	Total/NA	Soil	8260B	242635
MB 570-243789/9	Method Blank	Total/NA	Solid	8260B	
LCS 570-243789/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 570-243789/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

### Analysis Batch: 244174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-12	LCW-12-061622	Total/NA	Soil	8260B	242628
MB 570-244174/8	Method Blank	Total/NA	Solid	8260B	
LCS 570-244174/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 570-244174/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

## GC/MS Semi VOA

### Prep Batch: 244076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	3541	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	3541	
570-100189-3 - DL	LCW-05-061722	Total/NA	Soil	3541	
570-100189-4	LCW-07-061722	Total/NA	Soil	3541	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	3541	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	3541	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	3541	
MB 570-244076/1-A	Method Blank	Total/NA	Solid	3541	
LCS 570-244076/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 570-244076/3-A	Lab Control Sample Dup	Total/NA	Solid	3541	
570-100189-3 MS - DL	LCW-05-061722	Total/NA	Soil	3541	
570-100189-3 MSD - DL	LCW-05-061722	Total/NA	Soil	3541	

### Analysis Batch: 246665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	8270C SIM	244076
570-100189-2	LCW-03/04-061522	Total/NA	Soil	8270C SIM	244076
570-100189-3 - DL	LCW-05-061722	Total/NA	Soil	8270C SIM	244076
570-100189-4	LCW-07-061722	Total/NA	Soil	8270C SIM	244076

Eurofins Calscience

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## GC/MS Semi VOA (Continued)

### Analysis Batch: 246665 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-5	LCW-08/09-061722	Total/NA	Soil	8270C SIM	244076
570-100189-6	LCW-10/11-061722	Total/NA	Soil	8270C SIM	244076
MB 570-244076/1-A	Method Blank	Total/NA	Solid	8270C SIM	244076
LCS 570-244076/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	244076
LCSD 570-244076/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	244076
570-100189-3 MS - DL	LCW-05-061722	Total/NA	Soil	8270C SIM	244076
570-100189-3 MSD - DL	LCW-05-061722	Total/NA	Soil	8270C SIM	244076

### Analysis Batch: 247138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-7	LCW-12/13-061722	Total/NA	Soil	8270C SIM	244076

## GC Semi VOA

### Prep Batch: 243003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	3550C	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	3550C	
570-100189-3	LCW-05-061722	Total/NA	Soil	3550C	
570-100189-4	LCW-07-061722	Total/NA	Soil	3550C	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	3550C	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	3550C	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	3550C	
MB 570-243003/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 570-243003/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 570-243003/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
570-100039-D-1-A MS	Matrix Spike	Total/NA	Solid	3550C	
570-100039-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

### Analysis Batch: 243500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	8015B	243003
570-100189-2	LCW-03/04-061522	Total/NA	Soil	8015B	243003
570-100189-3	LCW-05-061722	Total/NA	Soil	8015B	243003
570-100189-4	LCW-07-061722	Total/NA	Soil	8015B	243003
570-100189-5	LCW-08/09-061722	Total/NA	Soil	8015B	243003
570-100189-6	LCW-10/11-061722	Total/NA	Soil	8015B	243003
570-100189-7	LCW-12/13-061722	Total/NA	Soil	8015B	243003
MB 570-243003/1-A	Method Blank	Total/NA	Solid	8015B	243003
LCS 570-243003/2-A	Lab Control Sample	Total/NA	Solid	8015B	243003
LCSD 570-243003/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	243003
570-100039-D-1-A MS	Matrix Spike	Total/NA	Solid	8015B	243003
570-100039-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	243003

### Prep Batch: 244075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	3541	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	3541	
570-100189-3	LCW-05-061722	Total/NA	Soil	3541	
570-100189-4	LCW-07-061722	Total/NA	Soil	3541	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	3541	

Eurofins Calscience

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## GC Semi VOA (Continued)

### Prep Batch: 244075 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-6	LCW-10/11-061722	Total/NA	Soil	3541	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	3541	
MB 570-244075/1-A	Method Blank	Total/NA	Solid	3541	
LCS 570-244075/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCS 570-244075/4-A	Lab Control Sample	Total/NA	Solid	3541	
LCS 570-244075/6-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 570-244075/3-A	Lab Control Sample Dup	Total/NA	Solid	3541	
LCSD 570-244075/5-A	Lab Control Sample Dup	Total/NA	Solid	3541	
LCSD 570-244075/7-A	Lab Control Sample Dup	Total/NA	Solid	3541	
570-100189-2 MS	LCW-03/04-061522	Total/NA	Soil	3541	
570-100189-2 MSD	LCW-03/04-061522	Total/NA	Soil	3541	
570-100189-5 MS	LCW-08/09-061722	Total/NA	Soil	3541	
570-100189-5 MSD	LCW-08/09-061722	Total/NA	Soil	3541	
570-100189-6 MS	LCW-10/11-061722	Total/NA	Soil	3541	
570-100189-6 MSD	LCW-10/11-061722	Total/NA	Soil	3541	

### Analysis Batch: 244614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	8082	244075
570-100189-2	LCW-03/04-061522	Total/NA	Soil	8082	244075
570-100189-3	LCW-05-061722	Total/NA	Soil	8082	244075
570-100189-4	LCW-07-061722	Total/NA	Soil	8082	244075
570-100189-5	LCW-08/09-061722	Total/NA	Soil	8082	244075
570-100189-6	LCW-10/11-061722	Total/NA	Soil	8082	244075
570-100189-7	LCW-12/13-061722	Total/NA	Soil	8082	244075
MB 570-244075/1-A	Method Blank	Total/NA	Solid	8082	244075
LCS 570-244075/6-A	Lab Control Sample	Total/NA	Solid	8082	244075
LCSD 570-244075/7-A	Lab Control Sample Dup	Total/NA	Solid	8082	244075
570-100189-6 MS	LCW-10/11-061722	Total/NA	Soil	8082	244075
570-100189-6 MSD	LCW-10/11-061722	Total/NA	Soil	8082	244075

### Analysis Batch: 245037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	8081A	244075
570-100189-2	LCW-03/04-061522	Total/NA	Soil	8081A	244075
570-100189-3	LCW-05-061722	Total/NA	Soil	8081A	244075
570-100189-4	LCW-07-061722	Total/NA	Soil	8081A	244075
570-100189-5	LCW-08/09-061722	Total/NA	Soil	8081A	244075
570-100189-6	LCW-10/11-061722	Total/NA	Soil	8081A	244075
570-100189-7	LCW-12/13-061722	Total/NA	Soil	8081A	244075
MB 570-244075/1-A	Method Blank	Total/NA	Solid	8081A	244075

### Analysis Batch: 245099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-244075/2-A	Lab Control Sample	Total/NA	Solid	8081A	244075
LCS 570-244075/4-A	Lab Control Sample	Total/NA	Solid	8081A	244075
LCSD 570-244075/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	244075
LCSD 570-244075/5-A	Lab Control Sample Dup	Total/NA	Solid	8081A	244075
570-100189-2 MS	LCW-03/04-061522	Total/NA	Soil	8081A	244075
570-100189-2 MSD	LCW-03/04-061522	Total/NA	Soil	8081A	244075
570-100189-5 MS	LCW-08/09-061722	Total/NA	Soil	8081A	244075

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## GC Semi VOA (Continued)

### Analysis Batch: 245099 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-5 MSD	LCW-08/09-061722	Total/NA	Soil	8081A	244075

## Metals

### Prep Batch: 243397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	7471A	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	7471A	
570-100189-3	LCW-05-061722	Total/NA	Soil	7471A	
570-100189-4	LCW-07-061722	Total/NA	Soil	7471A	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	7471A	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	7471A	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	7471A	
MB 570-243397/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-243397/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-243397/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-100135-A-2-C MS	Matrix Spike	Total/NA	Solid	7471A	
570-100135-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

### Analysis Batch: 243719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	7471A	243397
570-100189-2	LCW-03/04-061522	Total/NA	Soil	7471A	243397
570-100189-3	LCW-05-061722	Total/NA	Soil	7471A	243397
570-100189-4	LCW-07-061722	Total/NA	Soil	7471A	243397
570-100189-5	LCW-08/09-061722	Total/NA	Soil	7471A	243397
570-100189-6	LCW-10/11-061722	Total/NA	Soil	7471A	243397
570-100189-7	LCW-12/13-061722	Total/NA	Soil	7471A	243397
MB 570-243397/1-A	Method Blank	Total/NA	Solid	7471A	243397
LCS 570-243397/2-A	Lab Control Sample	Total/NA	Solid	7471A	243397
LCSD 570-243397/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	243397
570-100135-A-2-C MS	Matrix Spike	Total/NA	Solid	7471A	243397
570-100135-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	243397

### Analysis Batch: 244962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-245183/1-A	Method Blank	Total/NA	Solid	6020	245183
LCS 570-245183/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	245183
LCSD 570-245183/3-A ^20	Lab Control Sample Dup	Total/NA	Solid	6020	245183
570-101116-A-1-D MS ^20	Matrix Spike	Total/NA	Solid	6020	245183
570-101116-A-1-E MSD ^20	Matrix Spike Duplicate	Total/NA	Solid	6020	245183

### Prep Batch: 245183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	3050B	
570-100189-1 - DL	LCW-01/02-061522	Total/NA	Soil	3050B	
570-100189-2 - DL	LCW-03/04-061522	Total/NA	Soil	3050B	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	3050B	
570-100189-3	LCW-05-061722	Total/NA	Soil	3050B	
570-100189-3 - DL	LCW-05-061722	Total/NA	Soil	3050B	
570-100189-4 - DL	LCW-07-061722	Total/NA	Soil	3050B	

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Metals (Continued)

### Prep Batch: 245183 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-4	LCW-07-061722	Total/NA	Soil	3050B	
570-100189-5 - DL	LCW-08/09-061722	Total/NA	Soil	3050B	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	3050B	
570-100189-6 - DL	LCW-10/11-061722	Total/NA	Soil	3050B	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	3050B	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	3050B	
MB 570-245183/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-245183/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-245183/3-A ^20	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-101116-A-1-D MS ^20	Matrix Spike	Total/NA	Solid	3050B	
570-101116-A-1-E MSD ^20	Matrix Spike Duplicate	Total/NA	Solid	3050B	

### Analysis Batch: 245537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	6020	245183
570-100189-1 - DL	LCW-01/02-061522	Total/NA	Soil	6020	245183
570-100189-2	LCW-03/04-061522	Total/NA	Soil	6020	245183
570-100189-2 - DL	LCW-03/04-061522	Total/NA	Soil	6020	245183
570-100189-3	LCW-05-061722	Total/NA	Soil	6020	245183
570-100189-3 - DL	LCW-05-061722	Total/NA	Soil	6020	245183
570-100189-4	LCW-07-061722	Total/NA	Soil	6020	245183
570-100189-4 - DL	LCW-07-061722	Total/NA	Soil	6020	245183
570-100189-5	LCW-08/09-061722	Total/NA	Soil	6020	245183
570-100189-5 - DL	LCW-08/09-061722	Total/NA	Soil	6020	245183
570-100189-6	LCW-10/11-061722	Total/NA	Soil	6020	245183
570-100189-6 - DL	LCW-10/11-061722	Total/NA	Soil	6020	245183
570-100189-7	LCW-12/13-061722	Total/NA	Soil	6020	245183

## General Chemistry

### Analysis Batch: 243634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	Moisture - 2540	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	Moisture - 2540	
570-100189-3	LCW-05-061722	Total/NA	Soil	Moisture - 2540	
570-100189-4	LCW-07-061722	Total/NA	Soil	Moisture - 2540	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	Moisture - 2540	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	Moisture - 2540	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	Moisture - 2540	
570-100189-8	LCW-02-061522	Total/NA	Soil	Moisture - 2540	
570-100189-9	LCW-04-061522	Total/NA	Soil	Moisture - 2540	
570-100189-10	LCW-09-061722	Total/NA	Soil	Moisture - 2540	
570-100189-11	LCW-11-061622	Total/NA	Soil	Moisture - 2540	
570-100189-12	LCW-12-061622	Total/NA	Soil	Moisture - 2540	
570-100189-1 DU	LCW-01/02-061522	Total/NA	Soil	Moisture - 2540	
570-100189-11 DU	LCW-11-061622	Total/NA	Soil	Moisture - 2540	

### Analysis Batch: 395749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	9060A	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	9060A	

# QC Association Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## General Chemistry (Continued)

### Analysis Batch: 395749 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-3	LCW-05-061722	Total/NA	Soil	9060A	
570-100189-4	LCW-07-061722	Total/NA	Soil	9060A	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	9060A	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	9060A	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	9060A	
MB 580-395749/5	Method Blank	Total/NA	Solid	9060A	
LCS 580-395749/6	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 580-395749/7	Lab Control Sample Dup	Total/NA	Solid	9060A	
570-100189-1 MS	LCW-01/02-061522	Total/NA	Soil	9060A	
570-100189-1 MSD	LCW-01/02-061522	Total/NA	Soil	9060A	
570-100189-1 DU	LCW-01/02-061522	Total/NA	Soil	9060A	

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-01/02-061522**

**Lab Sample ID: 570-100189-1**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.16 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM		1			246665	07/05/22 13:32	ULLI	ECL 4
Instrument ID: GCMSEEE										
Total/NA	Prep	3550C			10.06 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 01:58	N5Y3	ECL 4
Instrument ID: GC48										
Total/NA	Prep	3541			20.04 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 13:30	N5Y3	ECL 4
Instrument ID: GC52A										
Total/NA	Prep	3541			20.04 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 09:22	AJ2Q	ECL 4
Instrument ID: GC81A										
Total/NA	Prep	3050B			2.02 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:26	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	3050B	DL		2.02 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020	DL	100			245537	06/29/22 20:17	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	7471A			0.48 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:40	W1BQ	ECL 4
Instrument ID: HG7										
Total/NA	Analysis	9060A		1			395749	06/30/22 17:53	FCG	FGS SEA
Instrument ID: TAC105										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-03/04-061522**

**Lab Sample ID: 570-100189-2**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.05 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM		1			246665	07/05/22 13:53	ULLI	ECL 4
Instrument ID: GCMSEEE										
Total/NA	Prep	3550C			10.06 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 02:19	N5Y3	ECL 4
Instrument ID: GC48										
Total/NA	Prep	3541			20.01 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 13:45	N5Y3	ECL 4
Instrument ID: GC52A										
Total/NA	Prep	3541			20.01 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 09:41	AJ2Q	ECL 4
Instrument ID: GC81A										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-03/04-061522**

**Lab Sample ID: 570-100189-2**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:30	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	3050B	DL		2.01 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020	DL	100			245537	06/29/22 20:20	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	7471A			0.50 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:42	W1BQ	ECL 4
Instrument ID: HG7										
Total/NA	Analysis	9060A		1			395749	06/30/22 17:58	FCG	FGS SEA
Instrument ID: TAC105										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-05-061722**

**Lab Sample ID: 570-100189-3**

**Date Collected: 06/17/22 17:10**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.895 g	5 mL	242635	06/18/22 10:45	UQTR	ECL 4
Total/NA	Analysis	8260B		1	5 mL	5 mL	243789	06/23/22 14:39	U4JL	ECL 4
Instrument ID: GCMSGGG										
Total/NA	Prep	3541	DL		20.12 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM	DL	5			246665	07/05/22 14:15	ULLI	ECL 4
Instrument ID: GCMSEEE										
Total/NA	Prep	3550C			10.02 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 02:40	N5Y3	ECL 4
Instrument ID: GC48										
Total/NA	Prep	3541			20.08 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 13:59	N5Y3	ECL 4
Instrument ID: GC52A										
Total/NA	Prep	3541			20.08 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 10:00	AJ2Q	ECL 4
Instrument ID: GC81A										
Total/NA	Prep	3050B			1.97 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:33	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	3050B	DL		1.97 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020	DL	100			245537	06/29/22 20:23	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	7471A			0.48 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:44	W1BQ	ECL 4
Instrument ID: HG7										
Total/NA	Analysis	9060A		1			395749	06/30/22 18:02	FCG	FGS SEA
Instrument ID: TAC105										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-05-061722**

**Lab Sample ID: 570-100189-3**

Date Collected: 06/17/22 17:10

Matrix: Soil

Date Received: 06/17/22 19:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4

**Client Sample ID: LCW-07-061722**

**Lab Sample ID: 570-100189-4**

Date Collected: 06/17/22 11:00

Matrix: Soil

Date Received: 06/17/22 19:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.01 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM		1			246665	07/05/22 14:36	ULLI	ECL 4
		Instrument ID: GCMSEEE								
Total/NA	Prep	3550C			10.04 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 03:01	N5Y3	ECL 4
		Instrument ID: GC48								
Total/NA	Prep	3541			20.10 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 14:14	N5Y3	ECL 4
		Instrument ID: GC52A								
Total/NA	Prep	3541			20.10 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 10:19	AJ2Q	ECL 4
		Instrument ID: GC81A								
Total/NA	Prep	3050B			2.00 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:36	UFLE	ECL 4
		Instrument ID: ICPMS05								
Total/NA	Prep	3050B	DL		2.00 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020	DL	100			245537	06/29/22 20:27	UFLE	ECL 4
		Instrument ID: ICPMS05								
Total/NA	Prep	7471A			0.50 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:50	W1BQ	ECL 4
		Instrument ID: HG7								
Total/NA	Analysis	9060A		1			395749	06/30/22 18:07	FCG	FGS SEA
		Instrument ID: TAC105								
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
		Instrument ID: BAL62								

**Client Sample ID: LCW-08/09-061722**

**Lab Sample ID: 570-100189-5**

Date Collected: 06/17/22 17:15

Matrix: Soil

Date Received: 06/17/22 19:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.03 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM		1			246665	07/05/22 14:58	ULLI	ECL 4
		Instrument ID: GCMSEEE								
Total/NA	Prep	3550C			10.07 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 03:22	N5Y3	ECL 4
		Instrument ID: GC48								

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-08/09-061722**

**Lab Sample ID: 570-100189-5**

**Date Collected: 06/17/22 17:15**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.04 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 14:29	N5Y3	ECL 4
Instrument ID: GC52A										
Total/NA	Prep	3541			20.04 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 10:38	AJ2Q	ECL 4
Instrument ID: GC81A										
Total/NA	Prep	3050B			2.02 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:39	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	3050B	DL		2.02 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020	DL	100			245537	06/29/22 20:30	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	7471A			0.50 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:52	W1BQ	ECL 4
Instrument ID: HG7										
Total/NA	Analysis	9060A		1			395749	06/30/22 18:11	FCG	FGS SEA
Instrument ID: TAC105										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-10/11-061722**

**Lab Sample ID: 570-100189-6**

**Date Collected: 06/17/22 10:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.06 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM		1			246665	07/05/22 15:19	ULLI	ECL 4
Instrument ID: GCMSEEE										
Total/NA	Prep	3550C			10.08 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 04:25	N5Y3	ECL 4
Instrument ID: GC48										
Total/NA	Prep	3541			20.05 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 14:44	N5Y3	ECL 4
Instrument ID: GC52A										
Total/NA	Prep	3541			20.05 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 10:57	AJ2Q	ECL 4
Instrument ID: GC81A										
Total/NA	Prep	3050B			2.00 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:42	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	3050B	DL		2.00 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020	DL	100			245537	06/29/22 20:52	UFLE	ECL 4
Instrument ID: ICPMS05										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Client Sample ID: LCW-10/11-061722

## Lab Sample ID: 570-100189-6

Date Collected: 06/17/22 10:00

Matrix: Soil

Date Received: 06/17/22 19:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:53	W1BQ	ECL 4
Instrument ID: HG7										
Total/NA	Analysis	9060A		1			395749	06/30/22 18:16	FCG	FGS SEA
Instrument ID: TAC105										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

## Client Sample ID: LCW-12/13-061722

## Lab Sample ID: 570-100189-7

Date Collected: 06/17/22 17:15

Matrix: Soil

Date Received: 06/17/22 19:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.01 g	1 mL	244076	06/23/22 21:28	UM1W	ECL 4
Total/NA	Analysis	8270C SIM		5			247138	07/06/22 16:37	ULLI	ECL 4
Instrument ID: GCMSEEE										
Total/NA	Prep	3550C			10.06 g	10 mL	243003	06/20/22 18:36	USUL	ECL 4
Total/NA	Analysis	8015B		1			243500	06/23/22 04:46	N5Y3	ECL 4
Instrument ID: GC48										
Total/NA	Prep	3541			20.06 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8081A		1			245037	06/28/22 14:59	N5Y3	ECL 4
Instrument ID: GC52A										
Total/NA	Prep	3541			20.06 g	2 mL	244075	06/23/22 21:11	UM1W	ECL 4
Total/NA	Analysis	8082		1	1 mL	1.0 mL	244614	06/27/22 11:16	AJ2Q	ECL 4
Instrument ID: GC81A										
Total/NA	Prep	3050B			1.99 g	100 mL	245183	06/28/22 14:30	UFLE	ECL 4
Total/NA	Analysis	6020		20			245537	06/29/22 19:45	UFLE	ECL 4
Instrument ID: ICPMS05										
Total/NA	Prep	7471A			0.50 g	50 mL	243397	06/21/22 21:10	SR3N	ECL 4
Total/NA	Analysis	7471A		1			243719	06/22/22 20:55	W1BQ	ECL 4
Instrument ID: HG7										
Total/NA	Analysis	9060A		1			395749	06/30/22 18:20	FCG	FGS SEA
Instrument ID: TAC105										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

## Client Sample ID: LCW-02-061522

## Lab Sample ID: 570-100189-8

Date Collected: 06/15/22 13:00

Matrix: Soil

Date Received: 06/17/22 19:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.159 g	5 mL	242635	06/18/22 10:45	UQTR	ECL 4
Total/NA	Analysis	8260B		1	5 mL	5 mL	243789	06/23/22 15:03	U4JL	ECL 4
Instrument ID: GCMSGGG										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

**Client Sample ID: LCW-02-061522**

**Lab Sample ID: 570-100189-8**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4

**Client Sample ID: LCW-04-061522**

**Lab Sample ID: 570-100189-9**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.249 g	5 mL	242635	06/18/22 10:45	UQTR	ECL 4
Total/NA	Analysis	8260B		1	5 mL	5 mL	243789	06/23/22 15:27	U4JL	ECL 4
Instrument ID: GCMSGGG										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-09-061722**

**Lab Sample ID: 570-100189-10**

**Date Collected: 06/17/22 15:20**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.505 g	5 mL	242635	06/18/22 10:45	UQTR	ECL 4
Total/NA	Analysis	8260B		1	5 mL	5 mL	243789	06/23/22 15:51	U4JL	ECL 4
Instrument ID: GCMSGGG										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-11-061622**

**Lab Sample ID: 570-100189-11**

**Date Collected: 06/16/22 12:45**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.145 g	5 mL	242635	06/18/22 10:45	UQTR	ECL 4
Total/NA	Analysis	8260B		1	5 mL	5 mL	243789	06/23/22 16:15	U4JL	ECL 4
Instrument ID: GCMSGGG										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-12-061622**

**Lab Sample ID: 570-100189-12**

**Date Collected: 06/16/22 11:45**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.14 g	5 mL	242628	06/18/22 10:42	UQTR	ECL 4
Total/NA	Analysis	8260B		50	5 mL	5 mL	244174	06/24/22 11:51	AH8S	ECL 4
Instrument ID: GCMSGGG										
Total/NA	Analysis	Moisture - 2540		1			243634	06/22/22 15:57	B4QL	ECL 4
Instrument ID: BAL62										

# Lab Chronicle

Client: Anchor QEA LLC

Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Laboratory References:

ECL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Accreditation/Certification Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

## Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture - 2540		Soil	Percent Solids
Oregon	NELAP		4175
			01-31-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8270C SIM	3541	Soil	1-Methylphenanthrene
8270C SIM	3541	Soil	2,6-Dimethylnaphthalene

## Laboratory: Eurofins Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2954	07-07-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9060A		Soil	Total Organic Carbon - Quad
Oregon	NELAP		4167
			07-07-22

# Method Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 4
8270C SIM	Semivolatile Organic Compound (GC/MS SIM LL)	SW846	ECL 4
8015B	Diesel Range Organics (DRO) (GC)	SW846	ECL 4
8081A	Organochlorine Pesticides (GC)	SW846	ECL 4
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ECL 4
6020	Metals (ICP/MS)	SW846	ECL 4
7471A	Mercury (CVAA)	SW846	ECL 4
9060A	Organic Carbon, Total (TOC)	SW846	FGS SEA
Moisture - 2540	Percent Moisture	SM	ECL 4
3050B	Preparation, Metals	SW846	ECL 4
3541	Automated Soxhlet Extraction	SW846	ECL 4
3550C	Ultrasonic Extraction	SW846	ECL 4
5035	Closed System Purge and Trap	SW846	ECL 4
7471A	Preparation, Mercury	SW846	ECL 4

#### Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ECL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

# Sample Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-100189-1	LCW-01/02-061522	Soil	06/15/22 13:00	06/17/22 19:20
570-100189-2	LCW-03/04-061522	Soil	06/15/22 13:00	06/17/22 19:20
570-100189-3	LCW-05-061722	Soil	06/17/22 17:10	06/17/22 19:20
570-100189-4	LCW-07-061722	Soil	06/17/22 11:00	06/17/22 19:20
570-100189-5	LCW-08/09-061722	Soil	06/17/22 17:15	06/17/22 19:20
570-100189-6	LCW-10/11-061722	Soil	06/17/22 10:00	06/17/22 19:20
570-100189-7	LCW-12/13-061722	Soil	06/17/22 17:15	06/17/22 19:20
570-100189-8	LCW-02-061522	Soil	06/15/22 13:00	06/17/22 19:20
570-100189-9	LCW-04-061522	Soil	06/15/22 13:00	06/17/22 19:20
570-100189-10	LCW-09-061722	Soil	06/17/22 15:20	06/17/22 19:20
570-100189-11	LCW-11-061622	Soil	06/16/22 12:45	06/17/22 19:20
570-100189-12	LCW-12-061622	Soil	06/16/22 11:45	06/17/22 19:20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

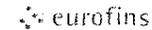




**Eurofins Calscience**

2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Phone: 714-895-5494

**Chain of Custody Record**



Environmental Testing  
America

<b>Client Information (Sub Contract Lab)</b>		Sampler:		Lab PM: Thompson, Lori		Carrier Tracking No(s):		COC No: 570-174910 1			
Client Contact: Shipping/Receiving		Phone:		E-Mail: Lori.Thompson@et.eurofinsus.com		State of Origin: California		Page Page 1 of 1			
Company: Eurofins Environment Testing Northwest,				Accreditations Required (See note): NELAP - Oregon; State - California				Job #: 570-100189-1			
Address: 5755 8th Street East,		Due Date Requested: 6/30/2022		<b>Analysis Requested</b>						<b>Preservation Codes:</b> A - HCL                      M - Hexane B - NaOH                    N - None C - Zn Acetate            O - AsNaO2 D - Nitric Acid            P - Na2O4S E - NaHSO4                Q - Na2SO3 F - MeOH                   R - Na2S2O3 G - Amchlor              S - H2SO4 H - Ascorbic Acid        T - TSP Dodecahydrate I - Ice                        U - Acetone J - DI Water              V - MCAA K - EDTA                  W - pH 4-5 L - EDA                     Y - Trizma Z - other (specify)	
City: Tacoma		TAT Requested (days):									
State, Zip WA, 98424		PO #:									
Phone: 253-922-2310(Tel)		WO #:									
Email:		Project #: 57011148									
Project Name: Los Cerritos Wetlands Restoration Project		SSOW#:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		9060A_DW/ Soil Quadruplicate Analysis TOC			
Site:								Total Number of containers			
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=comp, G=grab)</b>		<b>Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)</b>		<b>Special Instructions/Note:</b>	
LCW-01/02-061522 (570-100189-1)		6/15/22		13:00 Pacific		Solid		X		1	
LCW-03/04-061522 (570-100189-2)		6/15/22		13:00 Pacific		Solid		X		1	
LCW-05-061722 (570-100189-3)		6/17/22		17:10 Pacific		Solid		X		1	
LCW-07-061722 (570-100189-4)		6/17/22		11:00 Pacific		Solid		X		1	
LCW-08/09-061722 (570-100189-5)		6/17/22		17:15 Pacific		Solid		X		1	
LCW-10/11-061722 (570-100189-6)		6/17/22		10:00 Pacific		Solid		X		1	
LCW-12/13-061722 (570-100189-7)		6/17/22		17:15 Pacific		Solid		X		1	
Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.											
<b>Possible Hazard Identification</b>						<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>					
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For    Months					
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:			
Relinquished by: <i>Olga Cinelas</i>		Date/Time: 6/22/22 1700		Company: EC		Received by: <i>Rhesa</i>		Date/Time: 6/23/22 0930		Company: Gersen	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks: <i>A3 2.7/2.6 Tel PO Smb Bus/1.net</i>					

# Login Sample Receipt Checklist

Client: Anchor QEA LLC

Job Number: 570-100189-1

**Login Number: 100189**

**List Source: Eurofins Calscience**

**List Number: 1**

**Creator: Lagunas, Jorge L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Login Sample Receipt Checklist

Client: Anchor QEA LLC

Job Number: 570-100189-1

**Login Number: 100189**

**List Number: 2**

**Creator: Vallelunga, Diana L**

**List Source: Eurofins Seattle**

**List Creation: 06/23/22 04:55 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

Laboratory Job ID: 570-100189-2

Client Project/Site: Los Cerritos Wetlands Restoration Project

For:

Anchor QEA LLC  
9700 Research Drive  
Irvine, California 92618

Attn: Chris Osuch



Authorized for release by:  
7/1/2022 1:34:03 PM

Lori Thompson, Project Manager I  
(657)212-3035

[Lori.Thompson@et.eurofinsus.com](mailto:Lori.Thompson@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	7
QC Sample Results . . . . .	8
QC Association Summary . . . . .	9
Lab Chronicle . . . . .	10
Method Summary . . . . .	12
Sample Summary . . . . .	13
Chain of Custody . . . . .	14
Receipt Checklists . . . . .	16

# Definitions/Glossary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

---

**Job ID: 570-100189-2**

---

**Laboratory: Eurofins Calscience**

## Narrative

---

**Job Narrative**  
**570-100189-2**

## Comments

No additional comments.

## Receipt

The samples were received on 6/17/2022 7:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.7° C.

## Lab Admin

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Subcontract Work

Method Salinity: This method was subcontracted to McCampbell Analytical, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# Detection Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

## Client Sample ID: LCW-01/02-061522

## Lab Sample ID: 570-100189-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Salinity	3.21		1.00		g/kg	1		Salinity in Sediment SM2510BM	Total/NA
Temperature	22		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

## Client Sample ID: LCW-03/04-061522

## Lab Sample ID: 570-100189-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Salinity	2.78		1.00		g/kg	1		Salinity in Sediment SM2510BM	Total/NA
Temperature	20.8		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

## Client Sample ID: LCW-05-061722

## Lab Sample ID: 570-100189-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	20.6		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

## Client Sample ID: LCW-07-061722

## Lab Sample ID: 570-100189-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	21.9		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

## Client Sample ID: LCW-08/09-061722

## Lab Sample ID: 570-100189-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Salinity	5.75		1.00		g/kg	1		Salinity in Sediment SM2510BM	Total/NA
Temperature	20.8		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

## Client Sample ID: LCW-10/11-061722

## Lab Sample ID: 570-100189-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Salinity	2.02		1.00		g/kg	1		Salinity in Sediment SM2510BM	Total/NA
Temperature	21.8		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

## Client Sample ID: LCW-12/13-061722

## Lab Sample ID: 570-100189-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Salinity	3.39		1.00		g/kg	1		Salinity in Sediment SM2510BM	Total/NA

This Detection Summary does not include radiochemical test results.

Euofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

**Client Sample ID: LCW-12/13-061722 (Continued)**

**Lab Sample ID: 570-100189-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	22.7		1.00		degrees C	1		Salinity in Sediment SM2510BM	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

## Method: Salinity in Sediment SM2510BM - General Subcontract Method

**Client Sample ID: LCW-01/02-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	3.21		1.00		g/kg		06/29/22 13:30	06/29/22 13:30	1
Temperature	22		1.00		degrees C		06/29/22 13:30	06/29/22 13:30	1

**Client Sample ID: LCW-03/04-061522**

**Date Collected: 06/15/22 13:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.78		1.00		g/kg		06/29/22 13:35	06/29/22 13:35	1
Temperature	20.8		1.00		degrees C		06/29/22 13:35	06/29/22 13:35	1

**Client Sample ID: LCW-05-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		1.00		g/kg		06/29/22 13:45	06/29/22 13:45	1
Temperature	20.6		1.00		degrees C		06/29/22 13:45	06/29/22 13:45	1

**Client Sample ID: LCW-07-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		1.00		g/kg		06/29/22 13:50	06/29/22 13:50	1
Temperature	21.9		1.00		degrees C		06/29/22 13:50	06/29/22 13:50	1

**Client Sample ID: LCW-08/09-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	5.75		1.00		g/kg		06/29/22 13:40	06/29/22 13:40	1
Temperature	20.8		1.00		degrees C		06/29/22 13:40	06/29/22 13:40	1

**Client Sample ID: LCW-10/11-061722**

**Date Collected: 06/17/22 10:00**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	2.02		1.00		g/kg		06/29/22 13:55	06/29/22 13:55	1
Temperature	21.8		1.00		degrees C		06/29/22 13:55	06/29/22 13:55	1

**Client Sample ID: LCW-12/13-061722**

**Date Collected: 06/17/22 17:15**

**Date Received: 06/17/22 19:20**

**Lab Sample ID: 570-100189-7**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	3.39		1.00		g/kg		06/29/22 14:00	06/29/22 14:00	1
Temperature	22.7		1.00		degrees C		06/29/22 14:00	06/29/22 14:00	1

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

## Method: Salinity in Sediment SM2510BM - General Subcontract Method

Lab Sample ID: 2206H14-001ADUP

Matrix: Soil

Analysis Batch: 248598

Client Sample ID: LCW-01/02-061522 (570-100189-1) DU

Prep Type: Total/NA

Prep Batch: 248598\_P

Analyte	Sample Result	Sample Qualifier	DUP Result	DUP Qualifier	Unit	D	RPD	RPD Limit
Salinity	3.21		3.22		g/kg		0.03	5
Temperature	22		22.1		degrees C		NA	NA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

## Subcontract

### Analysis Batch: 248598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
570-100189-2	LCW-03/04-061522	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
570-100189-3	LCW-05-061722	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
570-100189-4	LCW-07-061722	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
570-100189-5	LCW-08/09-061722	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
570-100189-6	LCW-10/11-061722	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
570-100189-7	LCW-12/13-061722	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P
2206H14-001ADUP	LCW-01/02-061522 (570-100189-1) DU	Total/NA	Soil	Salinity in Sediment SM2510BM	248598_P

### Prep Batch: 248598\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-100189-1	LCW-01/02-061522	Total/NA	Soil	SM2510B	
570-100189-2	LCW-03/04-061522	Total/NA	Soil	SM2510B	
570-100189-3	LCW-05-061722	Total/NA	Soil	SM2510B	
570-100189-4	LCW-07-061722	Total/NA	Soil	SM2510B	
570-100189-5	LCW-08/09-061722	Total/NA	Soil	SM2510B	
570-100189-6	LCW-10/11-061722	Total/NA	Soil	SM2510B	
570-100189-7	LCW-12/13-061722	Total/NA	Soil	SM2510B	
2206H14-001ADUP	LCW-01/02-061522 (570-100189-1) DU	Total/NA	Soil	SM2510B	

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

**Client Sample ID: LCW-01/02-061522**

**Lab Sample ID: 570-100189-1**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 13:30		McCampbel
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 13:30	LUMA	McCampb
Instrument ID:										

**Client Sample ID: LCW-03/04-061522**

**Lab Sample ID: 570-100189-2**

**Date Collected: 06/15/22 13:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 13:35		McCampbel
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 13:35	LUMA	McCampb
Instrument ID:										

**Client Sample ID: LCW-05-061722**

**Lab Sample ID: 570-100189-3**

**Date Collected: 06/17/22 17:10**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 13:45		McCampbel
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 13:45	LUMA	McCampb
Instrument ID:										

**Client Sample ID: LCW-07-061722**

**Lab Sample ID: 570-100189-4**

**Date Collected: 06/17/22 11:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 13:50		McCampbel
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 13:50	LUMA	McCampb
Instrument ID:										

**Client Sample ID: LCW-08/09-061722**

**Lab Sample ID: 570-100189-5**

**Date Collected: 06/17/22 17:15**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 13:40		McCampbel
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 13:40	LUMA	McCampb
Instrument ID:										

Eurofins Calscience

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

**Client Sample ID: LCW-10/11-061722**

**Lab Sample ID: 570-100189-6**

**Date Collected: 06/17/22 10:00**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 13:55		McC Campbell
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 13:55	LUMA	McC Campbell
Instrument ID:										

**Client Sample ID: LCW-12/13-061722**

**Lab Sample ID: 570-100189-7**

**Date Collected: 06/17/22 17:15**

**Matrix: Soil**

**Date Received: 06/17/22 19:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SM2510B		1			248598_P	06/29/22 14:00		McC Campbell
Total/NA	Analysis	Salinity in Sediment SM2510BM		1			248598	06/29/22 14:00	LUMA	McC Campbell
Instrument ID:										

**Laboratory References:**

McC Campbell = McC Campbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565, TEL (925)252-9262

# Method Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

---

Method	Method Description	Protocol	Laboratory
Subcontract	Salinity	None	McC Campbell

---

**Protocol References:**

None = None

**Laboratory References:**

McC Campbell = McC Campbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565, TEL (925)252-9262

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# Sample Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration Project

Job ID: 570-100189-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-100189-1	LCW-01/02-061522	Soil	06/15/22 13:00	06/17/22 19:20
570-100189-2	LCW-03/04-061522	Soil	06/15/22 13:00	06/17/22 19:20
570-100189-3	LCW-05-061722	Soil	06/17/22 17:10	06/17/22 19:20
570-100189-4	LCW-07-061722	Soil	06/17/22 11:00	06/17/22 19:20
570-100189-5	LCW-08/09-061722	Soil	06/17/22 17:15	06/17/22 19:20
570-100189-6	LCW-10/11-061722	Soil	06/17/22 10:00	06/17/22 19:20
570-100189-7	LCW-12/13-061722	Soil	06/17/22 17:15	06/17/22 19:20

1

2

3

4

5

6

7

8

9

10

11

12

13



Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **9700 Research Drive**

CITY: **Irvine** STATE: **CA** ZIP: **92618**

TEL: **949.347.2780** E-MAIL: [cosuch@anchoragea.com](mailto:cosuch@anchoragea.com)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

Report down to the MDL

DATE: 6/17/22

PAGE: 1 OF 2

WO # / LAB USE ONLY

CLIENT PROJECT NAME / NUMBER:

Los Cerritos Wetlands Restoration Project

PROJECT CONTACT: Chris Osuch

P.O. NO.:

210090-01.01

SAMPLER(S): (PRINT)

M. Brown

REQUESTED ANALYSES

Please check box or fill in blank as needed.

Total Solids (SM 2540 B)

Salinity (SM 2520 B)

TOC (USEPA 9060A)

TPH C6-C44 (USEPA 8015B)

Title 22 Metals (USEPA 6020)

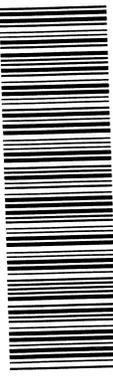
Mercury (USEPA 7471)

PAHs (USEPA 8270C SIM)

PCB Aroclors (USEPA 8082)

Pesticides (USEPA 8081A)

VOCs (USEPA 8620B)



570-100189 Chain of Custody

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:			Total Solids (SM 2540 B)	Salinity (SM 2520 B)	TOC (USEPA 9060A)	TPH C6-C44 (USEPA 8015B)	Title 22 Metals (USEPA 6020)	Mercury (USEPA 7471)	PAHs (USEPA 8270C SIM)	PCB Aroclors (USEPA 8082)	Pesticides (USEPA 8081A)	VOCs (USEPA 8620B)	Date:	Time:	
		DATE	TIME			Unpreserved	Preserved	Field Filtered													
	LCW-01/02-06 1722	6/15/22	1300	Soil	1				X	X	X	X	X	X	X	X	X	X			
	LCW-03/04-06 1522	6/15/22	1300	Soil	1				X	X	X	X	X	X	X	X	X	X			
	LCW-05-06 1222	6/17/22	17:10	Soil	6				X	X	X	X	X	X	X	X	X	X			
	LCW-07-06 1222	6/17/22	1100	Soil	1				X	X	X	X	X	X	X	X	X	X			
	LCW-08/09-06 1222	6/17/22	17:15	Soil	1				X	X	X	X	X	X	X	X	X	X			
	LCW-10/11-06 1722	6/17/22	10:00	Soil	1				X	X	X	X	X	X	X	X	X	X			
	LCW-12/13-06 1222	6/17/22	17:15	Soil	1				X	X	X	X	X	X	X	X	X	X			
	<del>LCW-12/17</del>																				
	<del>LCW-08/04-06 1200</del>																				

Received by: (Signature/Affiliation)

EC

Date: 6-17-2022

Time: 19:20

Relinquished by: (Signature)

Chris Osuch

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

4.0/5:7 IR 96





## Login Sample Receipt Checklist

Client: Anchor QEA LLC

Job Number: 570-100189-2

**Login Number: 100189**

**List Number: 1**

**Creator: Lagunas, Jorge L**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## ANALYTICAL REPORT

Eurofins Calscience  
2841 Dow Avenue, Suite 100  
Tustin, CA 92780  
Tel: (714)895-5494

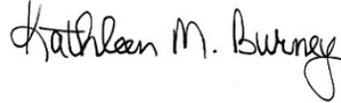
Laboratory Job ID: 570-107575-1

Client Project/Site: Los Cerritos Wetlands Restoration  
Revision: 1

**For:**

Anchor QEA LLC  
9700 Research Drive  
Irvine, California 92618

Attn: Chris Osuch



*Authorized for release by:*

9/28/2022 12:54:25 PM

Kathleen Burney, Project Mgmt. Assistant

[Kathleen.Burney@et.eurofinsus.com](mailto:Kathleen.Burney@et.eurofinsus.com)

Designee for

Lori Thompson, Project Manager I

(657)212-3035

[Lori.Thompson@et.eurofinsus.com](mailto:Lori.Thompson@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	6
Client Sample Results . . . . .	10
Surrogate Summary . . . . .	21
QC Sample Results . . . . .	22
QC Association Summary . . . . .	33
Lab Chronicle . . . . .	37
Certification Summary . . . . .	42
Method Summary . . . . .	43
Sample Summary . . . . .	44
Chain of Custody . . . . .	45
Receipt Checklists . . . . .	48
Air Canister Dilution . . . . .	49

# Definitions/Glossary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
♠	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Job ID: 570-107575-1

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-107575-1

#### Comments

No additional comments.

#### Revision

The report being provided is a revision of the original report sent on 9/8/2022. The report (revision 1) is being revised to include metals/Hg results for sample LCW-07-Z-061722 (570-107575-10), inadvertently omitted from original analysis.

#### Receipt

The samples were received on 8/24/2022 4:39 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4° C.

#### Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): LCW-04-4\_6-061522 (570-107575-7). The container labels list LCW-04-061522 @ 10:15, while the COC lists LCW-04-4-061522 @ 10:15. Client was contacted and the correct sample jar for LCW-04-4\_6-061522 was provided; logged in as 570-107575-16.

Container for the following sample was received broken: LCW-07-Z-061722 (570-107575-10). Sample mass was transferred to a new jar.

#### GC Semi VOA

Method 8082: The sample size used in the preparation of the matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-259488 and analytical batch 570-259701 was outside the 10% difference. As the relative percent difference (RPD) calculation is based upon the MS/MSD concentration as opposed to the MS/MSD percent recovery, elevated %RPD values were obtained.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

Method 6020: The method blank for preparation batch 570-259742 and analytical batch 570-260126 contained Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-259742 and analytical batch 570-260126 were outside control limits for Barium. The associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 7471A: The following samples were received outside of holding time: LCW-02-Z-061522 (570-107575-1), LCW-03-Z-061522 (570-107575-4), LCW-04-Z-061522 (570-107575-8), LCW-05-Z-061722 (570-107575-9), LCW-08-Z-061522 (570-107575-11), LCW-09-Z-061722 (570-107575-12), LCW-10-Z-061722 (570-107575-13), LCW-12-Z-061522 (570-107575-14), LCW-13-Z-061722 (570-107575-15), (570-107575-A-9-B MS) and (570-107575-A-9-C MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

Method Moisture - 2540: The following samples were received outside of holding time: LCW-02-Z-061522 (570-107575-1), LCW-03-0\_2-061522 (570-107575-2), LCW-03-2\_4-061522 (570-107575-3), LCW-03-Z-061522 (570-107575-4), LCW-04-0\_2-061522 (570-107575-5), LCW-04-2\_4-061522 (570-107575-6), LCW-04-Z-061522 (570-107575-8), LCW-05-Z-061722 (570-107575-9), LCW-07-Z-061722 (570-107575-10), LCW-08-Z-061522 (570-107575-11), LCW-09-Z-061722 (570-107575-12), LCW-10-Z-061722 (570-107575-13), LCW-12-Z-061522 (570-107575-14), LCW-13-Z-061722 (570-107575-15), LCW-04-4\_6-061522 (570-107575-16) and (570-107575-A-1 DU).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

---

## Job ID: 570-107575-1 (Continued)

---

### Laboratory: Eurofins Calscience (Continued)

#### Organic Prep

Method 3541: The following samples were received outside of holding time: LCW-03-0\_2-061522 (570-107575-2), LCW-03-2\_4-061522 (570-107575-3), LCW-03-Z-061522 (570-107575-4), LCW-04-0\_2-061522 (570-107575-5), LCW-04-2\_4-061522 (570-107575-6), LCW-04-Z-061522 (570-107575-8), and LCW-04-4\_6-061522 (570-107575-16).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

---

## Job ID: 570-107575-2

---

### Laboratory: Eurofins Calscience

#### Narrative

#### Job Narrative 570-107575-2

#### Comments

No additional comments.

#### Metals

Method 6020: The method blank for preparation batch 570-267446 and analytical batch 570-267706 contained Molybdenum above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 7471A: The following sample was received outside of holding time: LCW-07-Z-061722 (570-107575-10).

Method 7471A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 570-267473 and analytical batch 570-267805 were outside control limits for Barium. The associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Client Sample ID: LCW-02-Z-061522

## Lab Sample ID: 570-107575-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.341	J	1.34	0.171	mg/Kg	20	✳	6020	Total/NA
Arsenic	10.3		0.671	0.123	mg/Kg	20	✳	6020	Total/NA
Barium	179	B F1	0.671	0.128	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.796		0.403	0.187	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.177	J	0.671	0.115	mg/Kg	20	✳	6020	Total/NA
Chromium	34.7		1.34	0.139	mg/Kg	20	✳	6020	Total/NA
Cobalt	14.9		0.671	0.139	mg/Kg	20	✳	6020	Total/NA
Copper	41.3		1.34	0.152	mg/Kg	20	✳	6020	Total/NA
Lead	11.8		0.671	0.0878	mg/Kg	20	✳	6020	Total/NA
Molybdenum	1.77		1.34	0.145	mg/Kg	20	✳	6020	Total/NA
Nickel	26.5		1.34	0.128	mg/Kg	20	✳	6020	Total/NA
Selenium	2.47		1.34	0.506	mg/Kg	20	✳	6020	Total/NA
Thallium	0.337	J	0.671	0.0806	mg/Kg	20	✳	6020	Total/NA
Vanadium	67.4		1.34	0.162	mg/Kg	20	✳	6020	Total/NA
Zinc	95.0		13.4	0.744	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0604	J H H3	0.118	0.0192	mg/Kg	1	✳	7471A	Total/NA

## Client Sample ID: LCW-03-0\_2-061522

## Lab Sample ID: 570-107575-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aroclor-1248	23	H H3	10	5.8	ug/Kg	1	✳	8082	Total/NA
Aroclor-1260	22	H H3	10	5.2	ug/Kg	1	✳	8082	Total/NA

## Client Sample ID: LCW-03-2\_4-061522

## Lab Sample ID: 570-107575-3

No Detections.

## Client Sample ID: LCW-03-Z-061522

## Lab Sample ID: 570-107575-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.196	J	1.16	0.148	mg/Kg	20	✳	6020	Total/NA
Arsenic	7.36		0.581	0.106	mg/Kg	20	✳	6020	Total/NA
Barium	135	B	0.581	0.111	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.766		0.348	0.162	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.195	J	0.581	0.0992	mg/Kg	20	✳	6020	Total/NA
Chromium	29.5		1.16	0.121	mg/Kg	20	✳	6020	Total/NA
Cobalt	12.2		0.581	0.120	mg/Kg	20	✳	6020	Total/NA
Copper	27.5		1.16	0.132	mg/Kg	20	✳	6020	Total/NA
Lead	8.94		0.581	0.0760	mg/Kg	20	✳	6020	Total/NA
Molybdenum	1.71		1.16	0.126	mg/Kg	20	✳	6020	Total/NA
Nickel	21.0		1.16	0.110	mg/Kg	20	✳	6020	Total/NA
Selenium	1.88		1.16	0.438	mg/Kg	20	✳	6020	Total/NA
Thallium	0.261	J	0.581	0.0697	mg/Kg	20	✳	6020	Total/NA
Vanadium	57.6		1.16	0.140	mg/Kg	20	✳	6020	Total/NA
Zinc	76.7		11.6	0.644	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0278	J H H3	0.0959	0.0155	mg/Kg	1	✳	7471A	Total/NA

## Client Sample ID: LCW-04-0\_2-061522

## Lab Sample ID: 570-107575-5

No Detections.

## Client Sample ID: LCW-04-2\_4-061522

## Lab Sample ID: 570-107575-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

**Client Sample ID: LCW-04-Z-061522**

**Lab Sample ID: 570-107575-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.507	J	1.36	0.173	mg/Kg	20	✳	6020	Total/NA
Arsenic	13.1		0.680	0.124	mg/Kg	20	✳	6020	Total/NA
Barium	344	B	0.680	0.130	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.974		0.408	0.189	mg/Kg	20	✳	6020	Total/NA
Cadmium	1.08		0.680	0.116	mg/Kg	20	✳	6020	Total/NA
Chromium	45.2		1.36	0.141	mg/Kg	20	✳	6020	Total/NA
Cobalt	17.5		0.680	0.141	mg/Kg	20	✳	6020	Total/NA
Copper	53.0		1.36	0.154	mg/Kg	20	✳	6020	Total/NA
Lead	56.8		0.680	0.0890	mg/Kg	20	✳	6020	Total/NA
Molybdenum	2.97		1.36	0.147	mg/Kg	20	✳	6020	Total/NA
Nickel	38.7		1.36	0.129	mg/Kg	20	✳	6020	Total/NA
Selenium	3.44		1.36	0.513	mg/Kg	20	✳	6020	Total/NA
Thallium	0.424	J	0.680	0.0817	mg/Kg	20	✳	6020	Total/NA
Vanadium	84.3		1.36	0.164	mg/Kg	20	✳	6020	Total/NA
Zinc	133		13.6	0.754	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0949	J H H3	0.114	0.0185	mg/Kg	1	✳	7471A	Total/NA

**Client Sample ID: LCW-05-Z-061722**

**Lab Sample ID: 570-107575-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.194	J	1.14	0.145	mg/Kg	20	✳	6020	Total/NA
Arsenic	2.46		0.569	0.104	mg/Kg	20	✳	6020	Total/NA
Barium	98.5	B	0.569	0.109	mg/Kg	20	✳	6020	Total/NA
Chromium	12.3		1.14	0.118	mg/Kg	20	✳	6020	Total/NA
Cobalt	5.48		0.569	0.118	mg/Kg	20	✳	6020	Total/NA
Copper	11.0		1.14	0.129	mg/Kg	20	✳	6020	Total/NA
Lead	8.64		0.569	0.0744	mg/Kg	20	✳	6020	Total/NA
Molybdenum	0.442	J	1.14	0.123	mg/Kg	20	✳	6020	Total/NA
Nickel	9.39		1.14	0.108	mg/Kg	20	✳	6020	Total/NA
Selenium	0.627	J	1.14	0.429	mg/Kg	20	✳	6020	Total/NA
Thallium	0.0831	J	0.569	0.0683	mg/Kg	20	✳	6020	Total/NA
Vanadium	22.5		1.14	0.137	mg/Kg	20	✳	6020	Total/NA
Zinc	34.0		11.4	0.631	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0558	J H H3	0.0967	0.0157	mg/Kg	1	✳	7471A	Total/NA

**Client Sample ID: LCW-07-Z-061722**

**Lab Sample ID: 570-107575-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.469	J	1.24	0.158	mg/Kg	20	✳	6020	Total/NA
Arsenic	2.03		0.621	0.113	mg/Kg	20	✳	6020	Total/NA
Barium	65.6		0.621	0.119	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.378		0.372	0.173	mg/Kg	20	✳	6020	Total/NA
Chromium	17.9		1.24	0.129	mg/Kg	20	✳	6020	Total/NA
Cobalt	7.52		0.621	0.128	mg/Kg	20	✳	6020	Total/NA
Copper	15.9		1.24	0.141	mg/Kg	20	✳	6020	Total/NA
Lead	4.67		0.621	0.0812	mg/Kg	20	✳	6020	Total/NA
Molybdenum	0.293	J B	1.24	0.134	mg/Kg	20	✳	6020	Total/NA
Nickel	14.6		1.24	0.118	mg/Kg	20	✳	6020	Total/NA
Selenium	0.559	J	1.24	0.468	mg/Kg	20	✳	6020	Total/NA
Thallium	0.147	J	0.621	0.0745	mg/Kg	20	✳	6020	Total/NA
Vanadium	33.7		1.24	0.150	mg/Kg	20	✳	6020	Total/NA
Zinc	42.3		12.4	0.688	mg/Kg	20	✳	6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Client Sample ID: LCW-07-Z-061722 (Continued)

## Lab Sample ID: 570-107575-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.0202	J H H3	0.0975	0.0158	mg/Kg	1	☒	7471A	Total/NA

## Client Sample ID: LCW-08-Z-061522

## Lab Sample ID: 570-107575-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.25		0.624	0.114	mg/Kg	20	☒	6020	Total/NA
Barium	68.7	B	0.624	0.119	mg/Kg	20	☒	6020	Total/NA
Beryllium	0.386		0.374	0.174	mg/Kg	20	☒	6020	Total/NA
Cadmium	0.147	J	0.624	0.107	mg/Kg	20	☒	6020	Total/NA
Chromium	16.6		1.25	0.130	mg/Kg	20	☒	6020	Total/NA
Cobalt	6.47		0.624	0.129	mg/Kg	20	☒	6020	Total/NA
Copper	13.9		1.25	0.142	mg/Kg	20	☒	6020	Total/NA
Lead	6.20		0.624	0.0817	mg/Kg	20	☒	6020	Total/NA
Molybdenum	0.607	J	1.25	0.135	mg/Kg	20	☒	6020	Total/NA
Nickel	11.4		1.25	0.119	mg/Kg	20	☒	6020	Total/NA
Selenium	1.05	J	1.25	0.471	mg/Kg	20	☒	6020	Total/NA
Thallium	0.178	J	0.624	0.0749	mg/Kg	20	☒	6020	Total/NA
Vanadium	34.6		1.25	0.151	mg/Kg	20	☒	6020	Total/NA
Zinc	49.5		12.5	0.692	mg/Kg	20	☒	6020	Total/NA
Mercury	0.0259	J H H3	0.104	0.0168	mg/Kg	1	☒	7471A	Total/NA

## Client Sample ID: LCW-09-Z-061722

## Lab Sample ID: 570-107575-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.496	J	1.37	0.175	mg/Kg	20	☒	6020	Total/NA
Arsenic	19.4		0.687	0.126	mg/Kg	20	☒	6020	Total/NA
Barium	166	B	0.687	0.131	mg/Kg	20	☒	6020	Total/NA
Beryllium	1.45		0.412	0.191	mg/Kg	20	☒	6020	Total/NA
Cadmium	0.226	J	0.687	0.117	mg/Kg	20	☒	6020	Total/NA
Chromium	44.3		1.37	0.143	mg/Kg	20	☒	6020	Total/NA
Cobalt	26.3		0.687	0.142	mg/Kg	20	☒	6020	Total/NA
Copper	53.8		1.37	0.156	mg/Kg	20	☒	6020	Total/NA
Lead	15.3		0.687	0.0899	mg/Kg	20	☒	6020	Total/NA
Molybdenum	3.22		1.37	0.148	mg/Kg	20	☒	6020	Total/NA
Nickel	43.6		1.37	0.131	mg/Kg	20	☒	6020	Total/NA
Selenium	3.33		1.37	0.518	mg/Kg	20	☒	6020	Total/NA
Thallium	0.296	J	0.687	0.0825	mg/Kg	20	☒	6020	Total/NA
Vanadium	81.9		1.37	0.166	mg/Kg	20	☒	6020	Total/NA
Zinc	111		13.7	0.762	mg/Kg	20	☒	6020	Total/NA
Mercury	0.125	H H3	0.124	0.0201	mg/Kg	1	☒	7471A	Total/NA

## Client Sample ID: LCW-10-Z-061722

## Lab Sample ID: 570-107575-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.379	J	1.35	0.172	mg/Kg	20	☒	6020	Total/NA
Arsenic	13.2		0.674	0.123	mg/Kg	20	☒	6020	Total/NA
Barium	146	B	0.674	0.129	mg/Kg	20	☒	6020	Total/NA
Beryllium	1.24		0.404	0.188	mg/Kg	20	☒	6020	Total/NA
Cadmium	0.260	J	0.674	0.115	mg/Kg	20	☒	6020	Total/NA
Chromium	42.9		1.35	0.140	mg/Kg	20	☒	6020	Total/NA
Cobalt	18.3		0.674	0.139	mg/Kg	20	☒	6020	Total/NA
Copper	44.8		1.35	0.153	mg/Kg	20	☒	6020	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Detection Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Client Sample ID: LCW-10-Z-061722 (Continued)

## Lab Sample ID: 570-107575-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	15.2		0.674	0.0882	mg/Kg	20	✳	6020	Total/NA
Molybdenum	2.43		1.35	0.146	mg/Kg	20	✳	6020	Total/NA
Nickel	33.1		1.35	0.128	mg/Kg	20	✳	6020	Total/NA
Selenium	2.90		1.35	0.508	mg/Kg	20	✳	6020	Total/NA
Thallium	0.416	J	0.674	0.0809	mg/Kg	20	✳	6020	Total/NA
Vanadium	81.3		1.35	0.162	mg/Kg	20	✳	6020	Total/NA
Zinc	116		13.5	0.747	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0479	J H H3	0.106	0.0172	mg/Kg	1	✳	7471A	Total/NA

## Client Sample ID: LCW-12-Z-061522

## Lab Sample ID: 570-107575-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.211	J	1.26	0.160	mg/Kg	20	✳	6020	Total/NA
Arsenic	7.58		0.628	0.115	mg/Kg	20	✳	6020	Total/NA
Barium	187	B	0.628	0.120	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.717		0.377	0.175	mg/Kg	20	✳	6020	Total/NA
Cadmium	0.464	J	0.628	0.107	mg/Kg	20	✳	6020	Total/NA
Chromium	31.8		1.26	0.130	mg/Kg	20	✳	6020	Total/NA
Cobalt	12.1		0.628	0.130	mg/Kg	20	✳	6020	Total/NA
Copper	32.8		1.26	0.142	mg/Kg	20	✳	6020	Total/NA
Lead	14.5		0.628	0.0821	mg/Kg	20	✳	6020	Total/NA
Molybdenum	1.20	J	1.26	0.136	mg/Kg	20	✳	6020	Total/NA
Nickel	24.5		1.26	0.119	mg/Kg	20	✳	6020	Total/NA
Selenium	1.80		1.26	0.474	mg/Kg	20	✳	6020	Total/NA
Thallium	0.264	J	0.628	0.0754	mg/Kg	20	✳	6020	Total/NA
Vanadium	57.2		1.26	0.151	mg/Kg	20	✳	6020	Total/NA
Zinc	84.6		12.6	0.696	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0806	J H H3	0.101	0.0164	mg/Kg	1	✳	7471A	Total/NA

## Client Sample ID: LCW-13-Z-061722

## Lab Sample ID: 570-107575-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11.3		0.668	0.122	mg/Kg	20	✳	6020	Total/NA
Barium	97.9	B	0.668	0.128	mg/Kg	20	✳	6020	Total/NA
Beryllium	0.644		0.401	0.186	mg/Kg	20	✳	6020	Total/NA
Chromium	33.7		1.34	0.139	mg/Kg	20	✳	6020	Total/NA
Cobalt	9.79		0.668	0.138	mg/Kg	20	✳	6020	Total/NA
Copper	26.5		1.34	0.151	mg/Kg	20	✳	6020	Total/NA
Lead	8.16		0.668	0.0874	mg/Kg	20	✳	6020	Total/NA
Molybdenum	2.64		1.34	0.144	mg/Kg	20	✳	6020	Total/NA
Nickel	18.2		1.34	0.127	mg/Kg	20	✳	6020	Total/NA
Selenium	1.76		1.34	0.504	mg/Kg	20	✳	6020	Total/NA
Thallium	0.399	J	0.668	0.0802	mg/Kg	20	✳	6020	Total/NA
Vanadium	57.6		1.34	0.161	mg/Kg	20	✳	6020	Total/NA
Zinc	77.8		13.4	0.741	mg/Kg	20	✳	6020	Total/NA
Mercury	0.0632	J H H3	0.114	0.0185	mg/Kg	1	✳	7471A	Total/NA

## Client Sample ID: LCW-04-4\_6-061522

## Lab Sample ID: 570-107575-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Client Sample ID: LCW-03-0\_2-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H H3	10	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
Aroclor-1221	ND	H H3	10	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
Aroclor-1232	ND	H H3	10	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
Aroclor-1242	ND	H H3	10	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
<b>Aroclor-1248</b>	<b>23</b>	<b>H H3</b>	10	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
Aroclor-1254	ND	H H3	10	5.2	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
<b>Aroclor-1260</b>	<b>22</b>	<b>H H3</b>	10	5.2	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
Aroclor-1262	ND	H H3	10	5.2	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
Aroclor-1268	ND	H H3	10	5.2	ug/Kg	✱	08/25/22 15:10	08/26/22 19:50	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Tetrachloro-m-xylene (Surr)</i>	98	H H3	20 - 143				08/25/22 15:10	08/26/22 19:50	1
<i>DCB Decachlorobiphenyl (Surr)</i>	87	H H3	20 - 180				08/25/22 15:10	08/26/22 19:50	1

**Client Sample ID: LCW-03-2\_4-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H H3	11	6.3	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1221	ND	H H3	11	6.3	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1232	ND	H H3	11	6.3	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1242	ND	H H3	11	6.3	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1248	ND	H H3	11	6.3	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1254	ND	H H3	11	5.7	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1260	ND	H H3	11	5.7	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1262	ND	H H3	11	5.7	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
Aroclor-1268	ND	H H3	11	5.7	ug/Kg	✱	08/25/22 15:10	08/26/22 20:54	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Tetrachloro-m-xylene (Surr)</i>	90	H H3	20 - 143				08/25/22 15:10	08/26/22 20:54	1
<i>DCB Decachlorobiphenyl (Surr)</i>	70	H H3	20 - 180				08/25/22 15:10	08/26/22 20:54	1

**Client Sample ID: LCW-03-Z-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H F2 H3	12	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1221	ND	H H3	12	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1232	ND	H H3	12	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1242	ND	H H3	12	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1248	ND	H H3	12	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1254	ND	H H3	12	5.9	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1260	ND	H F2 H3	12	5.9	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1262	ND	H H3	12	5.9	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
Aroclor-1268	ND	H H3	12	5.9	ug/Kg	✱	08/25/22 15:10	08/26/22 21:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Tetrachloro-m-xylene (Surr)</i>	94	H H3	20 - 143				08/25/22 15:10	08/26/22 21:15	1
<i>DCB Decachlorobiphenyl (Surr)</i>	76	H H3	20 - 180				08/25/22 15:10	08/26/22 21:15	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Client Sample ID: LCW-04-0\_2-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H H3	11	6.2	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1221	ND	H H3	11	6.2	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1232	ND	H H3	11	6.2	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1242	ND	H H3	11	6.2	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1248	ND	H H3	11	6.2	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1254	ND	H H3	11	5.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1260	ND	H H3	11	5.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1262	ND	H H3	11	5.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Aroclor-1268	ND	H H3	11	5.6	ug/Kg	✱	08/25/22 15:10	08/26/22 21:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	89	H H3	20 - 143				08/25/22 15:10	08/26/22 21:37	1
DCB Decachlorobiphenyl (Surr)	73	H H3	20 - 180				08/25/22 15:10	08/26/22 21:37	1

**Client Sample ID: LCW-04-2\_4-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H H3	12	6.4	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1221	ND	H H3	12	6.4	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1232	ND	H H3	12	6.4	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1242	ND	H H3	12	6.4	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1248	ND	H H3	12	6.4	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1254	ND	H H3	12	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1260	ND	H H3	12	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1262	ND	H H3	12	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Aroclor-1268	ND	H H3	12	5.8	ug/Kg	✱	08/25/22 15:10	08/26/22 21:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	98	H H3	20 - 143				08/25/22 15:10	08/26/22 21:58	1
DCB Decachlorobiphenyl (Surr)	80	H H3	20 - 180				08/25/22 15:10	08/26/22 21:58	1

**Client Sample ID: LCW-04-Z-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H H3	13	7.4	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1221	ND	H H3	13	7.4	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1232	ND	H H3	13	7.4	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1242	ND	H H3	13	7.4	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1248	ND	H H3	13	7.4	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1254	ND	H H3	13	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1260	ND	H H3	13	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1262	ND	H H3	13	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Aroclor-1268	ND	H H3	13	6.6	ug/Kg	✱	08/25/22 15:10	08/26/22 22:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	80	H H3	20 - 143				08/25/22 15:10	08/26/22 22:41	1
DCB Decachlorobiphenyl (Surr)	71	H H3	20 - 180				08/25/22 15:10	08/26/22 22:41	1

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Client Sample ID: LCW-04-4\_6-061522**

**Lab Sample ID: 570-107575-16**

**Date Collected: 06/15/22 10:15**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor-1016	ND	H H3	12	6.9	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1221	ND	H H3	12	6.9	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1232	ND	H H3	12	6.9	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1242	ND	H H3	12	6.9	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1248	ND	H H3	12	6.9	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1254	ND	H H3	12	6.2	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1260	ND	H H3	12	6.2	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1262	ND	H H3	12	6.2	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1
Aroclor-1268	ND	H H3	12	6.2	ug/Kg	✱	08/27/22 09:35	08/31/22 12:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	99	H3 H	20 - 143	08/27/22 09:35	08/31/22 12:24	1
DCB Decachlorobiphenyl (Surr)	92	H3 H	20 - 180	08/27/22 09:35	08/31/22 12:24	1

# Client Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: LCW-02-Z-061522**

**Date Collected: 06/15/22 11:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.341	J	1.34	0.171	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Arsenic	10.3		0.671	0.123	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Barium	179	B F1	0.671	0.128	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Beryllium	0.796		0.403	0.187	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Cadmium	0.177	J	0.671	0.115	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Chromium	34.7		1.34	0.139	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Cobalt	14.9		0.671	0.139	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Copper	41.3		1.34	0.152	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Lead	11.8		0.671	0.0878	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Molybdenum	1.77		1.34	0.145	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Nickel	26.5		1.34	0.128	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Selenium	2.47		1.34	0.506	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Silver	ND		0.671	0.426	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Thallium	0.337	J	0.671	0.0806	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Vanadium	67.4		1.34	0.162	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20
Zinc	95.0		13.4	0.744	mg/Kg	☼	08/26/22 11:51	08/29/22 09:40	20

**Client Sample ID: LCW-03-Z-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.196	J	1.16	0.148	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Arsenic	7.36		0.581	0.106	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Barium	135	B	0.581	0.111	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Beryllium	0.766		0.348	0.162	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Cadmium	0.195	J	0.581	0.0992	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Chromium	29.5		1.16	0.121	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Cobalt	12.2		0.581	0.120	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Copper	27.5		1.16	0.132	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Lead	8.94		0.581	0.0760	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Molybdenum	1.71		1.16	0.126	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Nickel	21.0		1.16	0.110	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Selenium	1.88		1.16	0.438	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Silver	ND		0.581	0.369	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Thallium	0.261	J	0.581	0.0697	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Vanadium	57.6		1.16	0.140	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20
Zinc	76.7		11.6	0.644	mg/Kg	☼	08/26/22 11:51	08/29/22 09:56	20

**Client Sample ID: LCW-04-Z-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.507	J	1.36	0.173	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Arsenic	13.1		0.680	0.124	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Barium	344	B	0.680	0.130	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Beryllium	0.974		0.408	0.189	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Cadmium	1.08		0.680	0.116	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Chromium	45.2		1.36	0.141	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Cobalt	17.5		0.680	0.141	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Copper	53.0		1.36	0.154	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20

Euofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Client Sample ID: LCW-04-Z-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	56.8		0.680	0.0890	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Molybdenum	2.97		1.36	0.147	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Nickel	38.7		1.36	0.129	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Selenium	3.44		1.36	0.513	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Silver	ND		0.680	0.432	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Thallium	0.424	J	0.680	0.0817	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Vanadium	84.3		1.36	0.164	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20
Zinc	133		13.6	0.754	mg/Kg	☼	08/26/22 11:51	08/29/22 09:58	20

**Client Sample ID: LCW-05-Z-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-9**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.194	J	1.14	0.145	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Arsenic	2.46		0.569	0.104	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Barium	98.5	B	0.569	0.109	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Beryllium	ND		0.341	0.158	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Cadmium	ND		0.569	0.0972	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Chromium	12.3		1.14	0.118	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Cobalt	5.48		0.569	0.118	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Copper	11.0		1.14	0.129	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Lead	8.64		0.569	0.0744	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Molybdenum	0.442	J	1.14	0.123	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Nickel	9.39		1.14	0.108	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Selenium	0.627	J	1.14	0.429	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Silver	ND		0.569	0.361	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Thallium	0.0831	J	0.569	0.0683	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Vanadium	22.5		1.14	0.137	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20
Zinc	34.0		11.4	0.631	mg/Kg	☼	08/26/22 11:51	08/29/22 10:00	20

**Client Sample ID: LCW-07-Z-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-10**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.469	J	1.24	0.158	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Arsenic	2.03		0.621	0.113	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Barium	65.6		0.621	0.119	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Beryllium	0.378		0.372	0.173	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Cadmium	ND		0.621	0.106	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Chromium	17.9		1.24	0.129	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Cobalt	7.52		0.621	0.128	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Copper	15.9		1.24	0.141	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Lead	4.67		0.621	0.0812	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Molybdenum	0.293	J B	1.24	0.134	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Nickel	14.6		1.24	0.118	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Selenium	0.559	J	1.24	0.468	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Silver	ND		0.621	0.394	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Thallium	0.147	J	0.621	0.0745	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Vanadium	33.7		1.24	0.150	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20
Zinc	42.3		12.4	0.688	mg/Kg	☼	09/26/22 15:32	09/27/22 10:16	20

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS)

**Client Sample ID: LCW-08-Z-061522**

**Date Collected: 06/15/22 12:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-11**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.25	0.159	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Arsenic</b>	<b>4.25</b>		0.624	0.114	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Barium</b>	<b>68.7</b>	<b>B</b>	0.624	0.119	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Beryllium</b>	<b>0.386</b>		0.374	0.174	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Cadmium</b>	<b>0.147</b>	<b>J</b>	0.624	0.107	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Chromium</b>	<b>16.6</b>		1.25	0.130	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Cobalt</b>	<b>6.47</b>		0.624	0.129	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Copper</b>	<b>13.9</b>		1.25	0.142	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Lead</b>	<b>6.20</b>		0.624	0.0817	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Molybdenum</b>	<b>0.607</b>	<b>J</b>	1.25	0.135	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Nickel</b>	<b>11.4</b>		1.25	0.119	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Selenium</b>	<b>1.05</b>	<b>J</b>	1.25	0.471	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
Silver	ND		0.624	0.396	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Thallium</b>	<b>0.178</b>	<b>J</b>	0.624	0.0749	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Vanadium</b>	<b>34.6</b>		1.25	0.151	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20
<b>Zinc</b>	<b>49.5</b>		12.5	0.692	mg/Kg	☼	08/26/22 11:51	08/29/22 10:03	20

**Client Sample ID: LCW-09-Z-061722**

**Date Collected: 06/17/22 15:20**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-12**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.496</b>	<b>J</b>	1.37	0.175	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Arsenic</b>	<b>19.4</b>		0.687	0.126	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Barium</b>	<b>166</b>	<b>B</b>	0.687	0.131	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Beryllium</b>	<b>1.45</b>		0.412	0.191	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Cadmium</b>	<b>0.226</b>	<b>J</b>	0.687	0.117	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Chromium</b>	<b>44.3</b>		1.37	0.143	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Cobalt</b>	<b>26.3</b>		0.687	0.142	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Copper</b>	<b>53.8</b>		1.37	0.156	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Lead</b>	<b>15.3</b>		0.687	0.0899	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Molybdenum</b>	<b>3.22</b>		1.37	0.148	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Nickel</b>	<b>43.6</b>		1.37	0.131	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Selenium</b>	<b>3.33</b>		1.37	0.518	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
Silver	ND		0.687	0.436	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Thallium</b>	<b>0.296</b>	<b>J</b>	0.687	0.0825	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Vanadium</b>	<b>81.9</b>		1.37	0.166	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20
<b>Zinc</b>	<b>111</b>		13.7	0.762	mg/Kg	☼	08/26/22 11:51	08/29/22 10:05	20

**Client Sample ID: LCW-10-Z-061722**

**Date Collected: 06/17/22 08:30**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-13**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.379</b>	<b>J</b>	1.35	0.172	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Arsenic</b>	<b>13.2</b>		0.674	0.123	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Barium</b>	<b>146</b>	<b>B</b>	0.674	0.129	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Beryllium</b>	<b>1.24</b>		0.404	0.188	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Cadmium</b>	<b>0.260</b>	<b>J</b>	0.674	0.115	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Chromium</b>	<b>42.9</b>		1.35	0.140	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Cobalt</b>	<b>18.3</b>		0.674	0.139	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
<b>Copper</b>	<b>44.8</b>		1.35	0.153	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Client Sample ID: LCW-10-Z-061722**

**Date Collected: 06/17/22 08:30**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-13**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	15.2		0.674	0.0882	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Molybdenum	2.43		1.35	0.146	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Nickel	33.1		1.35	0.128	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Selenium	2.90		1.35	0.508	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Silver	ND		0.674	0.428	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Thallium	0.416	J	0.674	0.0809	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Vanadium	81.3		1.35	0.162	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20
Zinc	116		13.5	0.747	mg/Kg	☼	08/26/22 11:51	08/29/22 10:07	20

**Client Sample ID: LCW-12-Z-061522**

**Date Collected: 06/15/22 11:45**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-14**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.211	J	1.26	0.160	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Arsenic	7.58		0.628	0.115	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Barium	187	B	0.628	0.120	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Beryllium	0.717		0.377	0.175	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Cadmium	0.464	J	0.628	0.107	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Chromium	31.8		1.26	0.130	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Cobalt	12.1		0.628	0.130	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Copper	32.8		1.26	0.142	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Lead	14.5		0.628	0.0821	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Molybdenum	1.20	J	1.26	0.136	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Nickel	24.5		1.26	0.119	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Selenium	1.80		1.26	0.474	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Silver	ND		0.628	0.398	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Thallium	0.264	J	0.628	0.0754	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Vanadium	57.2		1.26	0.151	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20
Zinc	84.6		12.6	0.696	mg/Kg	☼	08/26/22 11:51	08/29/22 10:10	20

**Client Sample ID: LCW-13-Z-061722**

**Date Collected: 06/17/22 13:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-15**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.34	0.170	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Arsenic	11.3		0.668	0.122	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Barium	97.9	B	0.668	0.128	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Beryllium	0.644		0.401	0.186	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Cadmium	ND		0.668	0.114	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Chromium	33.7		1.34	0.139	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Cobalt	9.79		0.668	0.138	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Copper	26.5		1.34	0.151	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Lead	8.16		0.668	0.0874	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Molybdenum	2.64		1.34	0.144	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Nickel	18.2		1.34	0.127	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Selenium	1.76		1.34	0.504	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Silver	ND		0.668	0.424	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Thallium	0.399	J	0.668	0.0802	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Vanadium	57.6		1.34	0.161	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20
Zinc	77.8		13.4	0.741	mg/Kg	☼	08/26/22 11:51	08/29/22 10:12	20

Eurofins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 7471A - Mercury (CVAA)

Client Sample ID: LCW-02-Z-061522							Lab Sample ID: 570-107575-1			
Date Collected: 06/15/22 11:00							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0604	J H H3	0.118	0.0192	mg/Kg	☼	08/25/22 17:03	08/29/22 12:37	1	
Client Sample ID: LCW-03-Z-061522							Lab Sample ID: 570-107575-4			
Date Collected: 06/15/22 09:15							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0278	J H H3	0.0959	0.0155	mg/Kg	☼	08/26/22 16:19	08/29/22 13:40	1	
Client Sample ID: LCW-04-Z-061522							Lab Sample ID: 570-107575-8			
Date Collected: 06/15/22 10:15							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0949	J H H3	0.114	0.0185	mg/Kg	☼	08/26/22 16:19	08/29/22 13:42	1	
Client Sample ID: LCW-05-Z-061722							Lab Sample ID: 570-107575-9			
Date Collected: 06/17/22 17:10							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0558	J H H3	0.0967	0.0157	mg/Kg	☼	08/25/22 17:44	08/29/22 14:55	1	
Client Sample ID: LCW-07-Z-061722							Lab Sample ID: 570-107575-10			
Date Collected: 06/17/22 11:00							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0202	J H H3	0.0975	0.0158	mg/Kg	☼	09/26/22 17:40	09/27/22 14:32	1	
Client Sample ID: LCW-08-Z-061522							Lab Sample ID: 570-107575-11			
Date Collected: 06/15/22 12:00							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0259	J H H3	0.104	0.0168	mg/Kg	☼	08/25/22 17:44	08/29/22 15:05	1	
Client Sample ID: LCW-09-Z-061722							Lab Sample ID: 570-107575-12			
Date Collected: 06/17/22 15:20							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.125	H H3	0.124	0.0201	mg/Kg	☼	08/25/22 17:44	08/29/22 15:07	1	
Client Sample ID: LCW-10-Z-061722							Lab Sample ID: 570-107575-13			
Date Collected: 06/17/22 08:30							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0479	J H H3	0.106	0.0172	mg/Kg	☼	08/25/22 17:44	08/29/22 15:08	1	
Client Sample ID: LCW-12-Z-061522							Lab Sample ID: 570-107575-14			
Date Collected: 06/15/22 11:45							Matrix: Soil			
Date Received: 08/24/22 16:39										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.0806	J H H3	0.101	0.0164	mg/Kg	☼	08/25/22 17:44	08/29/22 15:10	1	

# Client Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 7471A - Mercury (CVAA)

Client Sample ID: LCW-13-Z-061722

Date Collected: 06/17/22 13:00

Date Received: 08/24/22 16:39

Lab Sample ID: 570-107575-15

Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0632	J H H3	0.114	0.0185	mg/Kg	✱	08/25/22 17:44	08/29/22 15:12	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## General Chemistry

**Client Sample ID: LCW-02-Z-061522**

**Date Collected: 06/15/22 11:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-1**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	73.4	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-03-0\_2-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-2**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95.1	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-03-2\_4-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-3**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87.2	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-03-Z-061522**

**Date Collected: 06/15/22 09:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-4**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	83.6	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-04-0\_2-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-5**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	88.7	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-04-2\_4-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-6**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85.7	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-04-Z-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-8**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74.6	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-05-Z-061722**

**Date Collected: 06/17/22 17:10**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-9**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86.2	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-07-Z-061722**

**Date Collected: 06/17/22 11:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-10**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82.2	H H3	0.100	0.100	%			08/25/22 13:30	1

Eurolins Calscience

# Client Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## General Chemistry

**Client Sample ID: LCW-08-Z-061522**

**Date Collected: 06/15/22 12:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-11**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	80.5	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-09-Z-061722**

**Date Collected: 06/17/22 15:20**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-12**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	70.0	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-10-Z-061722**

**Date Collected: 06/17/22 08:30**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-13**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	75.4	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-12-Z-061522**

**Date Collected: 06/15/22 11:45**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-14**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79.3	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-13-Z-061722**

**Date Collected: 06/17/22 13:00**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-15**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	74.5	H H3	0.100	0.100	%			08/25/22 13:30	1

**Client Sample ID: LCW-04-4\_6-061522**

**Date Collected: 06/15/22 10:15**

**Date Received: 08/24/22 16:39**

**Lab Sample ID: 570-107575-16**

**Matrix: Soil**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79.9	H H3	0.100	0.100	%			08/25/22 17:59	1

# Surrogate Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Soil

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCB1
		(20-143)	(20-180)
570-107575-2	LCW-03-0_2-061522	98 H H3	87 H H3
570-107575-3	LCW-03-2_4-061522	90 H H3	70 H H3
570-107575-4	LCW-03-Z-061522	94 H H3	76 H H3
570-107575-4 MS	LCW-03-Z-061522	87 H H3	82 H H3
570-107575-4 MSD	LCW-03-Z-061522	101 H H3	70 H H3
570-107575-5	LCW-04-0_2-061522	89 H H3	73 H H3
570-107575-6	LCW-04-2_4-061522	98 H H3	80 H H3
570-107575-8	LCW-04-Z-061522	80 H H3	71 H H3
570-107575-16	LCW-04-4_6-061522	99 H3 H	92 H3 H
570-107575-16 MS	LCW-04-4_6-061522	97	94
570-107575-16 MSD	LCW-04-4_6-061522	96	91

#### Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCB1
		(20-143)	(20-180)
LCS 570-259488/2-A	Lab Control Sample	95	103
LCS 570-259939/4-A	Lab Control Sample	100	107
LCSD 570-259488/3-A	Lab Control Sample Dup	100	107
LCSD 570-259939/5-A	Lab Control Sample Dup	94	105
MB 570-259488/1-A	Method Blank	91	105
MB 570-259939/1-A	Method Blank	101	112

#### Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)

DCB = DCB Decachlorobiphenyl (Surr)

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 570-259488/1-A**  
**Matrix: Solid**  
**Analysis Batch: 259701**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259488**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor-1016	ND		10	5.5	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1221	ND		10	5.5	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1232	ND		10	5.5	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1242	ND		10	5.5	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1248	ND		10	5.5	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1254	ND		10	5.0	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1260	ND		10	5.0	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1262	ND		10	5.0	ug/Kg		08/25/22 15:10	08/26/22 18:46	1
Aroclor-1268	ND		10	5.0	ug/Kg		08/25/22 15:10	08/26/22 18:46	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene (Surr)	91		20 - 143	08/25/22 15:10	08/26/22 18:46	1
DCB Decachlorobiphenyl (Surr)	105		20 - 180	08/25/22 15:10	08/26/22 18:46	1

**Lab Sample ID: LCS 570-259488/2-A**  
**Matrix: Solid**  
**Analysis Batch: 259701**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259488**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Aroclor-1016	20.0	24.06		ug/Kg		120	47 - 163
Aroclor-1260	20.0	23.49		ug/Kg		117	57 - 167

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (Surr)	95		20 - 143
DCB Decachlorobiphenyl (Surr)	103		20 - 180

**Lab Sample ID: LCSD 570-259488/3-A**  
**Matrix: Solid**  
**Analysis Batch: 259701**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 259488**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Aroclor-1016	20.0	23.01		ug/Kg		115	47 - 163	4	30
Aroclor-1260	20.0	25.05		ug/Kg		125	57 - 167	6	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (Surr)	100		20 - 143
DCB Decachlorobiphenyl (Surr)	107		20 - 180

**Lab Sample ID: 570-107575-4 MS**  
**Matrix: Soil**  
**Analysis Batch: 259701**

**Client Sample ID: LCW-03-Z-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259488**

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Aroclor-1016	ND	H F2 H3	23.8	24.03	H H3	ug/Kg	☼	101	20 - 180
Aroclor-1260	ND	H F2 H3	23.8	23.76	H H3	ug/Kg	☼	100	20 - 180

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: 570-107575-4 MS**  
**Matrix: Soil**  
**Analysis Batch: 259701**

**Client Sample ID: LCW-03-Z-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259488**

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (Surr)	87	H H3	20 - 143
DCB Decachlorobiphenyl (Surr)	82	H H3	20 - 180

**Lab Sample ID: 570-107575-4 MSD**  
**Matrix: Soil**  
**Analysis Batch: 259701**

**Client Sample ID: LCW-03-Z-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259488**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Aroclor-1016	ND	H F2 H3	23.8	7.881	J H F2 H3	ug/Kg	⊛	33	20 - 180	101	40	
Aroclor-1260	ND	H F2 H3	23.8	6.086	J H F2 H3	ug/Kg	⊛	26	20 - 180	118	40	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (Surr)	101	H H3	20 - 143
DCB Decachlorobiphenyl (Surr)	70	H H3	20 - 180

**Lab Sample ID: MB 570-259939/1-A**  
**Matrix: Solid**  
**Analysis Batch: 260465**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259939**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor-1016	ND		10	5.5	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1221	ND		10	5.5	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1232	ND		10	5.5	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1242	ND		10	5.5	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1248	ND		10	5.5	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1254	ND		10	5.0	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1260	ND		10	5.0	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1262	ND		10	5.0	ug/Kg		08/27/22 09:34	08/31/22 11:20	1
Aroclor-1268	ND		10	5.0	ug/Kg		08/27/22 09:34	08/31/22 11:20	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene (Surr)	101		20 - 143	08/27/22 09:34	08/31/22 11:20	1
DCB Decachlorobiphenyl (Surr)	112		20 - 180	08/27/22 09:34	08/31/22 11:20	1

**Lab Sample ID: LCS 570-259939/4-A**  
**Matrix: Solid**  
**Analysis Batch: 260465**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259939**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	RPD
Aroclor-1016	20.0	24.35		ug/Kg		122	47 - 163	
Aroclor-1260	20.0	26.34		ug/Kg		132	57 - 167	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (Surr)	100		20 - 143
DCB Decachlorobiphenyl (Surr)	107		20 - 180

# QC Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCSD 570-259939/5-A**  
**Matrix: Solid**  
**Analysis Batch: 260465**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 259939**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Aroclor-1016	20.0	21.63		ug/Kg		108	47 - 163	12	30	
Aroclor-1260	20.0	24.11		ug/Kg		121	57 - 167	9	30	
<b>LCSD LCSD</b>										
Surrogate	%Recovery	Qualifier	Limits							
Tetrachloro-m-xylene (Surr)	94		20 - 143							
DCB Decachlorobiphenyl (Surr)	105		20 - 180							

**Lab Sample ID: 570-107575-16 MS**  
**Matrix: Soil**  
**Analysis Batch: 260465**

**Client Sample ID: LCW-04-4\_6-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259939**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Aroclor-1016	ND	H H3	25.0	29.03		ug/Kg	☼	116	20 - 180			
Aroclor-1260	ND	H H3	25.0	29.14		ug/Kg	☼	117	20 - 180			
<b>MS MS</b>												
Surrogate	%Recovery	Qualifier	Limits									
Tetrachloro-m-xylene (Surr)	97		20 - 143									
DCB Decachlorobiphenyl (Surr)	94		20 - 180									

**Lab Sample ID: 570-107575-16 MSD**  
**Matrix: Soil**  
**Analysis Batch: 260465**

**Client Sample ID: LCW-04-4\_6-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259939**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Aroclor-1016	ND	H H3	24.9	28.06		ug/Kg	☼	113	20 - 180	3	40	
Aroclor-1260	ND	H H3	24.9	27.43		ug/Kg	☼	110	20 - 180	6	40	
<b>MSD MSD</b>												
Surrogate	%Recovery	Qualifier	Limits									
Tetrachloro-m-xylene (Surr)	96		20 - 143									
DCB Decachlorobiphenyl (Surr)	91		20 - 180									

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID: MB 570-259742/1-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 260126**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
Antimony	ND		1.00	0.128	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Arsenic	ND		0.500	0.0914	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Barium	0.1070	J	0.500	0.0957	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Beryllium	ND		0.300	0.139	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Cadmium	ND		0.500	0.0854	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Chromium	ND		1.00	0.104	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Cobalt	ND		0.500	0.103	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Copper	ND		1.00	0.113	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Lead	ND		0.500	0.0654	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	
Molybdenum	ND		1.00	0.108	mg/Kg		08/26/22 11:51	08/29/22 09:33		20	

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 570-259742/1-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 260126**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		1.00	0.0950	mg/Kg		08/26/22 11:51	08/29/22 09:33	20
Selenium	ND		1.00	0.377	mg/Kg		08/26/22 11:51	08/29/22 09:33	20
Silver	ND		0.500	0.317	mg/Kg		08/26/22 11:51	08/29/22 09:33	20
Thallium	ND		0.500	0.0600	mg/Kg		08/26/22 11:51	08/29/22 09:33	20
Vanadium	ND		1.00	0.121	mg/Kg		08/26/22 11:51	08/29/22 09:33	20
Zinc	ND		10.0	0.554	mg/Kg		08/26/22 11:51	08/29/22 09:33	20

**Lab Sample ID: LCS 570-259742/2-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 260126**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	49.8	55.40		mg/Kg		111	80 - 120
Arsenic	49.8	49.65		mg/Kg		100	80 - 120
Barium	49.8	51.21		mg/Kg		103	80 - 120
Beryllium	49.8	50.45		mg/Kg		101	80 - 120
Cadmium	49.8	51.25		mg/Kg		103	80 - 120
Chromium	49.8	51.75		mg/Kg		104	80 - 120
Cobalt	49.8	52.26		mg/Kg		105	80 - 120
Copper	49.8	52.85		mg/Kg		106	80 - 120
Lead	49.8	51.19		mg/Kg		103	80 - 120
Molybdenum	49.8	50.37		mg/Kg		101	80 - 120
Nickel	49.8	52.37		mg/Kg		105	80 - 120
Selenium	49.8	49.27		mg/Kg		99	80 - 120
Silver	24.9	25.71		mg/Kg		103	80 - 120
Thallium	49.8	50.36		mg/Kg		101	80 - 120
Vanadium	49.8	50.83		mg/Kg		102	80 - 120
Zinc	49.8	49.63		mg/Kg		100	80 - 120

**Lab Sample ID: LCSD 570-259742/3-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 260126**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	49.8	55.27		mg/Kg		111	80 - 120	0	20
Arsenic	49.8	49.69		mg/Kg		100	80 - 120	0	20
Barium	49.8	51.09		mg/Kg		103	80 - 120	0	20
Beryllium	49.8	50.36		mg/Kg		101	80 - 120	0	20
Cadmium	49.8	51.01		mg/Kg		103	80 - 120	0	20
Chromium	49.8	51.32		mg/Kg		103	80 - 120	1	20
Cobalt	49.8	52.08		mg/Kg		105	80 - 120	0	20
Copper	49.8	52.51		mg/Kg		106	80 - 120	1	20
Lead	49.8	51.28		mg/Kg		103	80 - 120	0	20
Molybdenum	49.8	50.54		mg/Kg		102	80 - 120	0	20
Nickel	49.8	52.50		mg/Kg		106	80 - 120	0	20
Selenium	49.8	47.80		mg/Kg		96	80 - 120	3	20
Silver	24.9	25.76		mg/Kg		104	80 - 120	0	20
Thallium	49.8	50.48		mg/Kg		101	80 - 120	0	20
Vanadium	49.8	50.41		mg/Kg		101	80 - 120	1	20

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 570-259742/3-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 260126**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Zinc	49.8	49.63		mg/Kg		100	80 - 120	0	20

**Lab Sample ID: 570-107575-1 MS**  
**Matrix: Soil**  
**Analysis Batch: 260126**

**Client Sample ID: LCW-02-Z-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.341	J	68.5	12.12		mg/Kg	⊛	17	1 - 97
Arsenic	10.3		68.5	74.99		mg/Kg	⊛	94	72 - 132
Barium	179	B F1	68.5	288.1	F1	mg/Kg	⊛	160	50 - 152
Beryllium	0.796		68.5	62.31		mg/Kg	⊛	90	61 - 121
Cadmium	0.177	J	68.5	67.43		mg/Kg	⊛	98	85 - 121
Chromium	34.7		68.5	100.9		mg/Kg	⊛	97	20 - 182
Cobalt	14.9		68.5	78.66		mg/Kg	⊛	93	40 - 166
Copper	41.3		68.5	104.4		mg/Kg	⊛	92	25 - 157
Lead	11.8		68.5	79.70		mg/Kg	⊛	99	62 - 134
Molybdenum	1.77		68.5	66.44		mg/Kg	⊛	94	69 - 123
Nickel	26.5		68.5	90.48		mg/Kg	⊛	94	46 - 154
Selenium	2.47		68.5	65.28		mg/Kg	⊛	92	54 - 132
Silver	ND		34.2	34.14		mg/Kg	⊛	100	78 - 126
Thallium	0.337	J	68.5	65.61		mg/Kg	⊛	95	79 - 115
Vanadium	67.4		68.5	137.4		mg/Kg	⊛	102	28 - 178
Zinc	95.0		68.5	162.1		mg/Kg	⊛	98	23 - 173

**Lab Sample ID: 570-107575-1 MSD**  
**Matrix: Soil**  
**Analysis Batch: 260126**

**Client Sample ID: LCW-02-Z-061522**  
**Prep Type: Total/NA**  
**Prep Batch: 259742**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.341	J	66.4	11.59		mg/Kg	⊛	17	1 - 97	4	39
Arsenic	10.3		66.4	73.20		mg/Kg	⊛	95	72 - 132	2	13
Barium	179	B F1	66.4	277.0		mg/Kg	⊛	148	50 - 152	4	41
Beryllium	0.796		66.4	59.82		mg/Kg	⊛	89	61 - 121	4	13
Cadmium	0.177	J	66.4	64.83		mg/Kg	⊛	97	85 - 121	4	12
Chromium	34.7		66.4	97.08		mg/Kg	⊛	94	20 - 182	4	15
Cobalt	14.9		66.4	75.68		mg/Kg	⊛	92	40 - 166	4	14
Copper	41.3		66.4	100.8		mg/Kg	⊛	90	25 - 157	4	22
Lead	11.8		66.4	76.33		mg/Kg	⊛	97	62 - 134	4	23
Molybdenum	1.77		66.4	63.91		mg/Kg	⊛	94	69 - 123	4	13
Nickel	26.5		66.4	87.50		mg/Kg	⊛	92	46 - 154	3	15
Selenium	2.47		66.4	63.07		mg/Kg	⊛	91	54 - 132	3	14
Silver	ND		33.2	32.71		mg/Kg	⊛	98	78 - 126	4	15
Thallium	0.337	J	66.4	62.69		mg/Kg	⊛	94	79 - 115	5	11
Vanadium	67.4		66.4	132.7		mg/Kg	⊛	98	28 - 178	3	28
Zinc	95.0		66.4	157.9		mg/Kg	⊛	95	23 - 173	3	18

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 570-267446/1-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 267706**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 267446**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.01	0.129	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Arsenic	ND		0.505	0.0923	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Barium	ND		0.505	0.0966	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Beryllium	ND		0.303	0.141	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Cadmium	ND		0.505	0.0863	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Chromium	ND		1.01	0.105	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Cobalt	ND		0.505	0.104	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Copper	ND		1.01	0.115	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Lead	ND		0.505	0.0661	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Molybdenum	0.1348	J	1.01	0.109	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Nickel	ND		1.01	0.0960	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Selenium	ND		1.01	0.381	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Silver	ND		0.505	0.321	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Thallium	ND		0.505	0.0606	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Vanadium	ND		1.01	0.122	mg/Kg		09/26/22 15:32	09/27/22 09:59	20
Zinc	ND		10.1	0.560	mg/Kg		09/26/22 15:32	09/27/22 09:59	20

**Lab Sample ID: LCS 570-267446/2-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 267706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 267446**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	51.0	54.62		mg/Kg		107	80 - 120
Arsenic	51.0	48.80		mg/Kg		96	80 - 120
Barium	51.0	49.79		mg/Kg		98	80 - 120
Beryllium	51.0	47.40		mg/Kg		93	80 - 120
Cadmium	51.0	50.26		mg/Kg		99	80 - 120
Chromium	51.0	50.15		mg/Kg		98	80 - 120
Cobalt	51.0	49.89		mg/Kg		98	80 - 120
Copper	51.0	50.50		mg/Kg		99	80 - 120
Lead	51.0	49.64		mg/Kg		97	80 - 120
Molybdenum	51.0	49.91		mg/Kg		98	80 - 120
Nickel	51.0	50.41		mg/Kg		99	80 - 120
Selenium	51.0	47.45		mg/Kg		93	80 - 120
Silver	25.5	24.88		mg/Kg		98	80 - 120
Thallium	51.0	49.15		mg/Kg		96	80 - 120
Vanadium	51.0	49.24		mg/Kg		97	80 - 120
Zinc	51.0	48.97		mg/Kg		96	80 - 120

**Lab Sample ID: LCSD 570-267446/3-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 267706**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 267446**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Antimony	50.5	54.82		mg/Kg		109	80 - 120	0	20
Arsenic	50.5	48.96		mg/Kg		97	80 - 120	0	20
Barium	50.5	49.52		mg/Kg		98	80 - 120	1	20
Beryllium	50.5	48.01		mg/Kg		95	80 - 120	1	20
Cadmium	50.5	49.87		mg/Kg		99	80 - 120	1	20

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 570-267446/3-A ^20**  
**Matrix: Solid**  
**Analysis Batch: 267706**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 267446**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	50.5	49.88		mg/Kg		99	80 - 120	1	20
Cobalt	50.5	50.15		mg/Kg		99	80 - 120	1	20
Copper	50.5	50.81		mg/Kg		101	80 - 120	1	20
Lead	50.5	50.17		mg/Kg		99	80 - 120	1	20
Molybdenum	50.5	49.99		mg/Kg		99	80 - 120	0	20
Nickel	50.5	50.66		mg/Kg		100	80 - 120	0	20
Selenium	50.5	48.47		mg/Kg		96	80 - 120	2	20
Silver	25.3	24.85		mg/Kg		98	80 - 120	0	20
Thallium	50.5	49.45		mg/Kg		98	80 - 120	1	20
Vanadium	50.5	49.35		mg/Kg		98	80 - 120	0	20
Zinc	50.5	48.74		mg/Kg		96	80 - 120	0	20

**Lab Sample ID: 570-110712-B-1-B MS ^20**  
**Matrix: Solid**  
**Analysis Batch: 267706**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 267446**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.330	J	49.8	21.79		mg/Kg		43	1 - 97		
Arsenic	4.67		49.8	49.31		mg/Kg		90	72 - 132		
Barium	58.6		49.8	132.9		mg/Kg		149	50 - 152		
Beryllium	0.197	J	49.8	39.26		mg/Kg		79	61 - 121		
Cadmium	0.148	J	49.8	43.42		mg/Kg		87	85 - 121		
Chromium	20.3		49.8	73.35		mg/Kg		107	20 - 182		
Cobalt	5.99		49.8	49.57		mg/Kg		88	40 - 166		
Copper	23.8		49.8	77.56		mg/Kg		108	25 - 157		
Lead	63.1		49.8	123.9		mg/Kg		122	62 - 134		
Molybdenum	0.465	J B	49.8	41.49		mg/Kg		82	69 - 123		
Nickel	21.4		49.8	73.71		mg/Kg		105	46 - 154		
Selenium	0.830	J	49.8	42.07		mg/Kg		83	54 - 132		
Silver	ND		24.9	21.69		mg/Kg		87	78 - 126		
Thallium	0.0990	J	49.8	42.40		mg/Kg		85	79 - 115		
Vanadium	26.1		49.8	85.72		mg/Kg		120	28 - 178		
Zinc	63.1		49.8	132.4		mg/Kg		139	23 - 173		

**Lab Sample ID: 570-110712-B-1-C MSD ^20**  
**Matrix: Solid**  
**Analysis Batch: 267706**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 267446**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.330	J	51.0	21.46		mg/Kg		41	1 - 97	1	39
Arsenic	4.67		51.0	50.11		mg/Kg		89	72 - 132	2	13
Barium	58.6		51.0	128.7		mg/Kg		137	50 - 152	3	41
Beryllium	0.197	J	51.0	40.90		mg/Kg		80	61 - 121	4	13
Cadmium	0.148	J	51.0	44.46		mg/Kg		87	85 - 121	2	12
Chromium	20.3		51.0	76.23		mg/Kg		110	20 - 182	4	15
Cobalt	5.99		51.0	49.82		mg/Kg		86	40 - 166	1	14
Copper	23.8		51.0	75.06		mg/Kg		100	25 - 157	3	22
Lead	63.1		51.0	130.6		mg/Kg		132	62 - 134	5	23
Molybdenum	0.465	J B	51.0	42.13		mg/Kg		82	69 - 123	2	13

Eurofins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-110712-B-1-C MSD ^20  
 Matrix: Solid  
 Analysis Batch: 267706

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 267446

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Nickel	21.4		51.0	76.71		mg/Kg		108	46 - 154	4	15
Selenium	0.830	J	51.0	42.98		mg/Kg		83	54 - 132	2	14
Silver	ND		25.5	22.36		mg/Kg		88	78 - 126	3	15
Thallium	0.0990	J	51.0	43.03		mg/Kg		84	79 - 115	1	11
Vanadium	26.1		51.0	84.32		mg/Kg		114	28 - 178	2	28
Zinc	63.1		51.0	138.2		mg/Kg		147	23 - 173	4	18

## Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-259500/1-A  
 Matrix: Solid  
 Analysis Batch: 260186

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 259500

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.0817	0.0132	mg/Kg		08/25/22 17:03	08/29/22 12:19	1

Lab Sample ID: LCS 570-259500/2-A  
 Matrix: Solid  
 Analysis Batch: 260186

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 259500

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Mercury	0.408	0.4171		mg/Kg		102	80 - 120

Lab Sample ID: LCSD 570-259500/3-A  
 Matrix: Solid  
 Analysis Batch: 260186

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA  
 Prep Batch: 259500

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
		Result	Qualifier				Limits		
Mercury	0.408	0.4092		mg/Kg		100	80 - 120	2	10

Lab Sample ID: 570-107444-A-1-D MS  
 Matrix: Solid  
 Analysis Batch: 260186

Client Sample ID: Matrix Spike  
 Prep Type: Total/NA  
 Prep Batch: 259500

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				Limits
Mercury	0.0315	J	0.392	0.4037		mg/Kg		95	80 - 120

Lab Sample ID: 570-107444-A-1-E MSD  
 Matrix: Solid  
 Analysis Batch: 260186

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Total/NA  
 Prep Batch: 259500

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Mercury	0.0315	J	0.385	0.3958		mg/Kg		95	80 - 120	2	20

Lab Sample ID: MB 570-259519/1-A  
 Matrix: Solid  
 Analysis Batch: 260186

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 259519

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.0868	0.0141	mg/Kg		08/25/22 17:44	08/29/22 14:49	1

Eurolins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 7471A - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 570-259519/2-A**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259519**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.400	0.4130		mg/Kg		103	80 - 120

**Lab Sample ID: LCSD 570-259519/3-A**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 259519**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.385	0.4095		mg/Kg		106	80 - 120	1	10

**Lab Sample ID: 570-107575-9 MS**  
**Matrix: Soil**  
**Analysis Batch: 260186**

**Client Sample ID: LCW-05-Z-061722**  
**Prep Type: Total/NA**  
**Prep Batch: 259519**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0558	J H H3	0.446	0.4829		mg/Kg	☼	96	80 - 120

**Lab Sample ID: 570-107575-9 MSD**  
**Matrix: Soil**  
**Analysis Batch: 260186**

**Client Sample ID: LCW-05-Z-061722**  
**Prep Type: Total/NA**  
**Prep Batch: 259519**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.0558	J H H3	0.446	0.4901		mg/Kg	☼	97	80 - 120	1	20

**Lab Sample ID: MB 570-259835/1-A**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 259835**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0135	mg/Kg		08/26/22 16:19	08/29/22 13:17	1

**Lab Sample ID: LCS 570-259835/2-A**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 259835**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.392	0.3850		mg/Kg		98	80 - 120

**Lab Sample ID: LCSD 570-259835/3-A**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 259835**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	0.400	0.4075		mg/Kg		102	80 - 120	6	10

**Lab Sample ID: 570-107634-A-1-B MS**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 259835**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.400	0.4193		mg/Kg		105	80 - 120

Eurolins Calscience

# QC Sample Results

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: 570-107634-A-1-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 260186**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 259835**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.408	0.4007		mg/Kg		98	80 - 120	5	20

**Lab Sample ID: MB 570-267473/1-A**  
**Matrix: Solid**  
**Analysis Batch: 267805**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 267473**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0868	0.0141	mg/Kg		09/26/22 17:40	09/27/22 14:23	1

**Lab Sample ID: LCS 570-267473/2-A**  
**Matrix: Solid**  
**Analysis Batch: 267805**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 267473**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.400	0.3380		mg/Kg		85	80 - 120

**Lab Sample ID: LCSD 570-267473/3-A**  
**Matrix: Solid**  
**Analysis Batch: 267805**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 267473**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.408	0.3440		mg/Kg		84	80 - 120	2	10

**Lab Sample ID: 570-110815-E-3-B MS**  
**Matrix: Solid**  
**Analysis Batch: 267805**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 267473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0352	J F1	0.400	0.3513	F1	mg/Kg		79	80 - 120

**Lab Sample ID: 570-110815-E-3-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 267805**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 267473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.0352	J F1	0.417	0.3902		mg/Kg		85	80 - 120	11	20

## Method: Moisture - 2540 - Percent Moisture

**Lab Sample ID: 570-107575-1 DU**  
**Matrix: Soil**  
**Analysis Batch: 259455**

**Client Sample ID: LCW-02-Z-061522**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	73.4	H H3	73.5		%		0.2	10

# QC Sample Results

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Method: Moisture - 2540 - Percent Moisture (Continued)

Lab Sample ID: 570-107575-11 DU

Client Sample ID: LCW-08-Z-061522

Matrix: Soil

Prep Type: Total/NA

Analysis Batch: 259455

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	80.5	H H3	79.9		%		0.7	10

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

# QC Association Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## GC Semi VOA

### Prep Batch: 259488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-2	LCW-03-0_2-061522	Total/NA	Soil	3541	
570-107575-3	LCW-03-2_4-061522	Total/NA	Soil	3541	
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	3541	
570-107575-5	LCW-04-0_2-061522	Total/NA	Soil	3541	
570-107575-6	LCW-04-2_4-061522	Total/NA	Soil	3541	
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	3541	
MB 570-259488/1-A	Method Blank	Total/NA	Solid	3541	
LCS 570-259488/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 570-259488/3-A	Lab Control Sample Dup	Total/NA	Solid	3541	
570-107575-4 MS	LCW-03-Z-061522	Total/NA	Soil	3541	
570-107575-4 MSD	LCW-03-Z-061522	Total/NA	Soil	3541	

### Analysis Batch: 259701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-2	LCW-03-0_2-061522	Total/NA	Soil	8082	259488
570-107575-3	LCW-03-2_4-061522	Total/NA	Soil	8082	259488
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	8082	259488
570-107575-5	LCW-04-0_2-061522	Total/NA	Soil	8082	259488
570-107575-6	LCW-04-2_4-061522	Total/NA	Soil	8082	259488
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	8082	259488
MB 570-259488/1-A	Method Blank	Total/NA	Solid	8082	259488
LCS 570-259488/2-A	Lab Control Sample	Total/NA	Solid	8082	259488
LCSD 570-259488/3-A	Lab Control Sample Dup	Total/NA	Solid	8082	259488
570-107575-4 MS	LCW-03-Z-061522	Total/NA	Soil	8082	259488
570-107575-4 MSD	LCW-03-Z-061522	Total/NA	Soil	8082	259488

### Prep Batch: 259939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-16	LCW-04-4_6-061522	Total/NA	Soil	3541	
MB 570-259939/1-A	Method Blank	Total/NA	Solid	3541	
LCS 570-259939/4-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 570-259939/5-A	Lab Control Sample Dup	Total/NA	Solid	3541	
570-107575-16 MS	LCW-04-4_6-061522	Total/NA	Soil	3541	
570-107575-16 MSD	LCW-04-4_6-061522	Total/NA	Soil	3541	

### Analysis Batch: 260465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-16	LCW-04-4_6-061522	Total/NA	Soil	8082	259939
MB 570-259939/1-A	Method Blank	Total/NA	Solid	8082	259939
LCS 570-259939/4-A	Lab Control Sample	Total/NA	Solid	8082	259939
LCSD 570-259939/5-A	Lab Control Sample Dup	Total/NA	Solid	8082	259939
570-107575-16 MS	LCW-04-4_6-061522	Total/NA	Soil	8082	259939
570-107575-16 MSD	LCW-04-4_6-061522	Total/NA	Soil	8082	259939

## Metals

### Prep Batch: 259500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-1	LCW-02-Z-061522	Total/NA	Soil	7471A	
MB 570-259500/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-259500/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Eurofins Calscience

# QC Association Summary

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Metals (Continued)

### Prep Batch: 259500 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-259500/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-107444-A-1-D MS	Matrix Spike	Total/NA	Solid	7471A	
570-107444-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

### Prep Batch: 259519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-9	LCW-05-Z-061722	Total/NA	Soil	7471A	
570-107575-11	LCW-08-Z-061522	Total/NA	Soil	7471A	
570-107575-12	LCW-09-Z-061722	Total/NA	Soil	7471A	
570-107575-13	LCW-10-Z-061722	Total/NA	Soil	7471A	
570-107575-14	LCW-12-Z-061522	Total/NA	Soil	7471A	
570-107575-15	LCW-13-Z-061722	Total/NA	Soil	7471A	
MB 570-259519/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-259519/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-259519/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-107575-9 MS	LCW-05-Z-061722	Total/NA	Soil	7471A	
570-107575-9 MSD	LCW-05-Z-061722	Total/NA	Soil	7471A	

### Prep Batch: 259742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-1	LCW-02-Z-061522	Total/NA	Soil	3050B	
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	3050B	
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	3050B	
570-107575-9	LCW-05-Z-061722	Total/NA	Soil	3050B	
570-107575-11	LCW-08-Z-061522	Total/NA	Soil	3050B	
570-107575-12	LCW-09-Z-061722	Total/NA	Soil	3050B	
570-107575-13	LCW-10-Z-061722	Total/NA	Soil	3050B	
570-107575-14	LCW-12-Z-061522	Total/NA	Soil	3050B	
570-107575-15	LCW-13-Z-061722	Total/NA	Soil	3050B	
MB 570-259742/1-A ^20	Method Blank	Total/NA	Solid	3050B	
LCS 570-259742/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-259742/3-A ^20	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-107575-1 MS	LCW-02-Z-061522	Total/NA	Soil	3050B	
570-107575-1 MSD	LCW-02-Z-061522	Total/NA	Soil	3050B	

### Prep Batch: 259835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	7471A	
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	7471A	
MB 570-259835/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-259835/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-259835/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-107634-A-1-B MS	Matrix Spike	Total/NA	Solid	7471A	
570-107634-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

### Analysis Batch: 260126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-1	LCW-02-Z-061522	Total/NA	Soil	6020	259742
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	6020	259742
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	6020	259742
570-107575-9	LCW-05-Z-061722	Total/NA	Soil	6020	259742

Eurofins Calscience

# QC Association Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Metals (Continued)

### Analysis Batch: 260126 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-11	LCW-08-Z-061522	Total/NA	Soil	6020	259742
570-107575-12	LCW-09-Z-061722	Total/NA	Soil	6020	259742
570-107575-13	LCW-10-Z-061722	Total/NA	Soil	6020	259742
570-107575-14	LCW-12-Z-061522	Total/NA	Soil	6020	259742
570-107575-15	LCW-13-Z-061722	Total/NA	Soil	6020	259742
MB 570-259742/1-A ^20	Method Blank	Total/NA	Solid	6020	259742
LCS 570-259742/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	259742
LCSD 570-259742/3-A ^20	Lab Control Sample Dup	Total/NA	Solid	6020	259742
570-107575-1 MS	LCW-02-Z-061522	Total/NA	Soil	6020	259742
570-107575-1 MSD	LCW-02-Z-061522	Total/NA	Soil	6020	259742

### Analysis Batch: 260186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-1	LCW-02-Z-061522	Total/NA	Soil	7471A	259500
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	7471A	259835
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	7471A	259835
570-107575-9	LCW-05-Z-061722	Total/NA	Soil	7471A	259519
570-107575-11	LCW-08-Z-061522	Total/NA	Soil	7471A	259519
570-107575-12	LCW-09-Z-061722	Total/NA	Soil	7471A	259519
570-107575-13	LCW-10-Z-061722	Total/NA	Soil	7471A	259519
570-107575-14	LCW-12-Z-061522	Total/NA	Soil	7471A	259519
570-107575-15	LCW-13-Z-061722	Total/NA	Soil	7471A	259519
MB 570-259500/1-A	Method Blank	Total/NA	Solid	7471A	259500
MB 570-259519/1-A	Method Blank	Total/NA	Solid	7471A	259519
MB 570-259835/1-A	Method Blank	Total/NA	Solid	7471A	259835
LCS 570-259500/2-A	Lab Control Sample	Total/NA	Solid	7471A	259500
LCS 570-259519/2-A	Lab Control Sample	Total/NA	Solid	7471A	259519
LCS 570-259835/2-A	Lab Control Sample	Total/NA	Solid	7471A	259835
LCSD 570-259500/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	259500
LCSD 570-259519/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	259519
LCSD 570-259835/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	259835
570-107444-A-1-D MS	Matrix Spike	Total/NA	Solid	7471A	259500
570-107444-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	259500
570-107575-9 MS	LCW-05-Z-061722	Total/NA	Soil	7471A	259519
570-107575-9 MSD	LCW-05-Z-061722	Total/NA	Soil	7471A	259519
570-107634-A-1-B MS	Matrix Spike	Total/NA	Solid	7471A	259835
570-107634-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	259835

### Prep Batch: 267446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-10	LCW-07-Z-061722	Total/NA	Soil	3050B	
MB 570-267446/1-A ^20	Method Blank	Total/NA	Solid	3050B	
LCS 570-267446/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-267446/3-A ^20	Lab Control Sample Dup	Total/NA	Solid	3050B	
570-110712-B-1-B MS ^20	Matrix Spike	Total/NA	Solid	3050B	
570-110712-B-1-C MSD ^20	Matrix Spike Duplicate	Total/NA	Solid	3050B	

### Prep Batch: 267473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-10	LCW-07-Z-061722	Total/NA	Soil	7471A	
MB 570-267473/1-A	Method Blank	Total/NA	Solid	7471A	

Eurofins Calscience

# QC Association Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Metals (Continued)

### Prep Batch: 267473 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-267473/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-267473/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-110815-E-3-B MS	Matrix Spike	Total/NA	Solid	7471A	
570-110815-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

### Analysis Batch: 267706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-10	LCW-07-Z-061722	Total/NA	Soil	6020	267446
MB 570-267446/1-A ^20	Method Blank	Total/NA	Solid	6020	267446
LCS 570-267446/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	267446
LCSD 570-267446/3-A ^20	Lab Control Sample Dup	Total/NA	Solid	6020	267446
570-110712-B-1-B MS ^20	Matrix Spike	Total/NA	Solid	6020	267446
570-110712-B-1-C MSD ^20	Matrix Spike Duplicate	Total/NA	Solid	6020	267446

### Analysis Batch: 267805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-10	LCW-07-Z-061722	Total/NA	Soil	7471A	267473
MB 570-267473/1-A	Method Blank	Total/NA	Solid	7471A	267473
LCS 570-267473/2-A	Lab Control Sample	Total/NA	Solid	7471A	267473
LCSD 570-267473/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	267473
570-110815-E-3-B MS	Matrix Spike	Total/NA	Solid	7471A	267473
570-110815-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	267473

## General Chemistry

### Analysis Batch: 259455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-107575-1	LCW-02-Z-061522	Total/NA	Soil	Moisture - 2540	
570-107575-2	LCW-03-0_2-061522	Total/NA	Soil	Moisture - 2540	
570-107575-3	LCW-03-2_4-061522	Total/NA	Soil	Moisture - 2540	
570-107575-4	LCW-03-Z-061522	Total/NA	Soil	Moisture - 2540	
570-107575-5	LCW-04-0_2-061522	Total/NA	Soil	Moisture - 2540	
570-107575-6	LCW-04-2_4-061522	Total/NA	Soil	Moisture - 2540	
570-107575-8	LCW-04-Z-061522	Total/NA	Soil	Moisture - 2540	
570-107575-9	LCW-05-Z-061722	Total/NA	Soil	Moisture - 2540	
570-107575-10	LCW-07-Z-061722	Total/NA	Soil	Moisture - 2540	
570-107575-11	LCW-08-Z-061522	Total/NA	Soil	Moisture - 2540	
570-107575-12	LCW-09-Z-061722	Total/NA	Soil	Moisture - 2540	
570-107575-13	LCW-10-Z-061722	Total/NA	Soil	Moisture - 2540	
570-107575-14	LCW-12-Z-061522	Total/NA	Soil	Moisture - 2540	
570-107575-15	LCW-13-Z-061722	Total/NA	Soil	Moisture - 2540	
570-107575-16	LCW-04-4_6-061522	Total/NA	Soil	Moisture - 2540	
570-107575-1 DU	LCW-02-Z-061522	Total/NA	Soil	Moisture - 2540	
570-107575-11 DU	LCW-08-Z-061522	Total/NA	Soil	Moisture - 2540	

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

**Client Sample ID: LCW-02-Z-061522**

**Lab Sample ID: 570-107575-1**

**Date Collected: 06/15/22 11:00**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 09:40	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.48 g	50 mL	259500	08/25/22 17:03	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 12:37	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-03-0\_2-061522**

**Lab Sample ID: 570-107575-2**

**Date Collected: 06/15/22 09:15**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.13 g	2 mL	259488	08/25/22 15:10	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	259701	08/26/22 19:50	UJ3K	EET CAL 4
Instrument ID: GC66										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-03-2\_4-061522**

**Lab Sample ID: 570-107575-3**

**Date Collected: 06/15/22 09:15**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.16 g	2 mL	259488	08/25/22 15:10	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	259701	08/26/22 20:54	UJ3K	EET CAL 4
Instrument ID: GC66										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-03-Z-061522**

**Lab Sample ID: 570-107575-4**

**Date Collected: 06/15/22 09:15**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.10 g	2 mL	259488	08/25/22 15:10	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	259701	08/26/22 21:15	UJ3K	EET CAL 4
Instrument ID: GC66										
Total/NA	Prep	3050B			2.06 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 09:56	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.52 g	50 mL	259835	08/26/22 16:19	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 13:40	UWCT	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

**Client Sample ID: LCW-03-Z-061522**

**Lab Sample ID: 570-107575-4**

Date Collected: 06/15/22 09:15

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4

**Client Sample ID: LCW-04-0\_2-061522**

**Lab Sample ID: 570-107575-5**

Date Collected: 06/15/22 10:15

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.06 g	2 mL	259488	08/25/22 15:10	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	259701	08/26/22 21:37	UJ3K	EET CAL 4
Instrument ID: GC66										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-04-2\_4-061522**

**Lab Sample ID: 570-107575-6**

Date Collected: 06/15/22 10:15

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.01 g	2 mL	259488	08/25/22 15:10	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	259701	08/26/22 21:58	UJ3K	EET CAL 4
Instrument ID: GC66										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-04-Z-061522**

**Lab Sample ID: 570-107575-8**

Date Collected: 06/15/22 10:15

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.09 g	2 mL	259488	08/25/22 15:10	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	259701	08/26/22 22:41	UJ3K	EET CAL 4
Instrument ID: GC66										
Total/NA	Prep	3050B			1.97 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 09:58	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.49 g	50 mL	259835	08/26/22 16:19	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 13:42	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

**Client Sample ID: LCW-05-Z-061722**

**Lab Sample ID: 570-107575-9**

**Date Collected: 06/17/22 17:10**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 10:00	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.50 g	50 mL	259519	08/25/22 17:44	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 14:55	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-07-Z-061722**

**Lab Sample ID: 570-107575-10**

**Date Collected: 06/17/22 11:00**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.96 g	50 mL	267446	09/26/22 15:32	CS5Z	EET CAL 4
Total/NA	Analysis	6020		20			267706	09/27/22 10:16	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.52 g	50 mL	267473	09/26/22 17:40	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			267805	09/27/22 14:32	C0YH	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-08-Z-061522**

**Lab Sample ID: 570-107575-11**

**Date Collected: 06/15/22 12:00**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.99 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 10:03	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.50 g	50 mL	259519	08/25/22 17:44	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 15:05	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-09-Z-061722**

**Lab Sample ID: 570-107575-12**

**Date Collected: 06/17/22 15:20**

**Matrix: Soil**

**Date Received: 08/24/22 16:39**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.08 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 10:05	Y2WS	EET CAL 4
Instrument ID: ICPMS10										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

**Client Sample ID: LCW-09-Z-061722**

**Lab Sample ID: 570-107575-12**

Date Collected: 06/17/22 15:20

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.48 g	50 mL	259519	08/25/22 17:44	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 15:07	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-10-Z-061722**

**Lab Sample ID: 570-107575-13**

Date Collected: 06/17/22 08:30

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.97 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 10:07	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.52 g	50 mL	259519	08/25/22 17:44	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 15:08	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-12-Z-061522**

**Lab Sample ID: 570-107575-14**

Date Collected: 06/15/22 11:45

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 10:10	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.52 g	50 mL	259519	08/25/22 17:44	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 15:10	UWCT	EET CAL 4
Instrument ID: HG7										
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4
Instrument ID: BAL62										

**Client Sample ID: LCW-13-Z-061722**

**Lab Sample ID: 570-107575-15**

Date Collected: 06/17/22 13:00

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	259742	08/26/22 11:51		EET CAL 4
Total/NA	Analysis	6020		20			260126	08/29/22 10:12	Y2WS	EET CAL 4
Instrument ID: ICPMS10										
Total/NA	Prep	7471A			0.49 g	50 mL	259519	08/25/22 17:44	SR3N	EET CAL 4
Total/NA	Analysis	7471A		1			260186	08/29/22 15:12	UWCT	EET CAL 4
Instrument ID: HG7										

# Lab Chronicle

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

**Client Sample ID: LCW-13-Z-061722**

**Lab Sample ID: 570-107575-15**

Date Collected: 06/17/22 13:00

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 13:30	B4QL	EET CAL 4

**Client Sample ID: LCW-04-4\_6-061522**

**Lab Sample ID: 570-107575-16**

Date Collected: 06/15/22 10:15

Matrix: Soil

Date Received: 08/24/22 16:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			20.06 g	2 mL	259939	08/27/22 09:35	UM1W	EET CAL 4
Total/NA	Analysis	8082		1	1 mL	1 mL	260465	08/31/22 12:24	UJ3K	EET CAL 4
		Instrument ID: GC66								
Total/NA	Analysis	Moisture - 2540		1			259455	08/25/22 17:59	B4QL	EET CAL 4
		Instrument ID: BAL62								

**Laboratory References:**

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

# Accreditation/Certification Summary

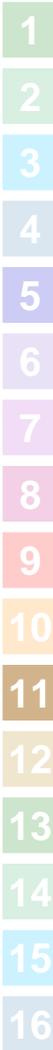
Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

## Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8082	3541	Soil	Aroclor-1262
8082	3541	Soil	Aroclor-1268
Moisture - 2540		Soil	Percent Solids
Oregon	NELAP	4175	02-02-23



# Method Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CAL 4
6020	Metals (ICP/MS)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
Moisture - 2540	Percent Moisture	SM	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3541	Automated Soxhlet Extraction	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4

#### Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



# Sample Summary

Client: Anchor QEA LLC  
Project/Site: Los Cerritos Wetlands Restoration

Job ID: 570-107575-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-107575-1	LCW-02-Z-061522	Soil	06/15/22 11:00	08/24/22 16:39
570-107575-2	LCW-03-0_2-061522	Soil	06/15/22 09:15	08/24/22 16:39
570-107575-3	LCW-03-2_4-061522	Soil	06/15/22 09:15	08/24/22 16:39
570-107575-4	LCW-03-Z-061522	Soil	06/15/22 09:15	08/24/22 16:39
570-107575-5	LCW-04-0_2-061522	Soil	06/15/22 10:15	08/24/22 16:39
570-107575-6	LCW-04-2_4-061522	Soil	06/15/22 10:15	08/24/22 16:39
570-107575-8	LCW-04-Z-061522	Soil	06/15/22 10:15	08/24/22 16:39
570-107575-9	LCW-05-Z-061722	Soil	06/17/22 17:10	08/24/22 16:39
570-107575-10	LCW-07-Z-061722	Soil	06/17/22 11:00	08/24/22 16:39
570-107575-11	LCW-08-Z-061522	Soil	06/15/22 12:00	08/24/22 16:39
570-107575-12	LCW-09-Z-061722	Soil	06/17/22 15:20	08/24/22 16:39
570-107575-13	LCW-10-Z-061722	Soil	06/17/22 08:30	08/24/22 16:39
570-107575-14	LCW-12-Z-061522	Soil	06/15/22 11:45	08/24/22 16:39
570-107575-15	LCW-13-Z-061722	Soil	06/17/22 13:00	08/24/22 16:39
570-107575-16	LCW-04-4_6-061522	Soil	06/15/22 10:15	08/24/22 16:39





Calscience

7440 Lincoln Way Garden Grove CA 92841-1427 • (714) 895-5494  
For courier service / sample drop off information contact us26\_sales@eurofins.com or call us

LABORATORY CLIENT:

**Anchor QEA**

**9700 Research Drive**

**Irvine** STATE: **CA** ZIP: **92618**

TEL: **949.347.2780** E-MAIL: [cosuch@anchoragea.com](mailto:cosuch@anchoragea.com)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS

Report down to the MDL



570-107575 Chain of Custody

Loc: 570

**CHAIN OF CUSTOD**

**107575**

DATE: 08/24/22

PAGE: 1 OF 2

CLIENT PROJECT NAME / NUMBER:

Los Cerritos Wetlands Restoration Project

P.O. NO.

210090-01 01

PROJECT CONTACT:

Chris Osuch

QUOTE #

SAMPLER(S): (PRINT)

M Brown

**REQUESTED ANALYSES**

Please check box or fill in blank as needed

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO OF CONT	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
1	LCW-02-Z-061522	6/15/2022	11 00	Soil	1	X		
2	LCW-03-0_2-061522	6/15/2022	09 15	Soil	1	X		
3	LCW-03-2_4-061522	6/15/2022	09 15	Soil	1	X		
4	LCW-03-Z-061522	6/15/2022	09 15	Soil	1	X		
5	LCW-04-0_2-061522	6/15/2022	10 15	Soil	1	X		
6	LCW-04-2_4-061522	6/15/2022	10 15	Soil	1	X		
7	LCW-04-4_6-061522	6/15/2022	10 15	Soil	1	X		
8	LCW-04-Z-061522	6/15/2022	10 15	Soil	1	X		
9	LCW-05-Z-061722	6/17/2022	17 10	Soil	1	X		
10	LCW-07-Z-061722	6/17/2022	11 00	Soil	1	X		

Total Solids (SM 2540 B) X  
 Title 22 Metals (USEPA 6020) X  
 PCB Aroclors (USEPA 8082) X

Received by: (Signature/Affiliation)

Received by: (Signature)

Received by: (Signature/Affiliation)

Received by: (Signature)

Received by: (Signature/Affiliation)

Date: 8/24/22 Time: 1639





Calscience

7440 Lincoln Way Garden Grove, CA 92841-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofins.com or call us

LABORATORY CLIENT:

**Anchor QEA**

ADDRESS: **9700 Research Drive**

CITY: **Irvine**

STATE: **CA**

ZIP: **92618**

TEL: **949.347.2780**

E-MAIL: [cosuch@anchoragea.com](mailto:cosuch@anchoragea.com)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD")

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

GLOBAL ID:

LOG CODE:

**SPECIAL INSTRUCTIONS**

Report down to the MDL

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
	LCW-04-4_6-061522	6/15/2022	10 15	Soil	1

Unpreserved  
 Preserved  
 Field Filtered

Total Solids (SM 2540 B)  
 Title 22 Metals (USEPA 6020)  
 PCB Aroclors (USEPA 8082)

**REQUESTED ANALYSES**

Please check box or fill in blank as needed



570-107575 Chain of Custody

Relinquished by (Signature)

*Melena Brown* Melena Brown AQEA

Received by (Signature/Affiliation)

*EC*

Date:

8-25-2022

Time: 16:52

Relinquished by (Signature)

Date:

Time:

Relinquished by (Signature)

Date:

Time:



# Login Sample Receipt Checklist

Client: Anchor QEA LLC

Job Number: 570-107575-1

**Login Number: 107575**

**List Number: 1**

**Creator: Skinner, Alma D**

**List Source: Eurofins Calscience**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Summa Canister Dilution Worksheet

Client: Anchor QEA LLC  
 Project/Site: Los Cerritos Wetlands Restoration

Job No.: 570-107575-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initials
570-107575-5	200	-4.8	0.84	167.91	-2.35754	0.84	167.91		1.00	1.00	AIR MG-4	08/28/22 0:15	UHOG
570-107575-5	200	-4.8	0.84	167.91	6.6	1.45	289.80		1.73	1.73	AIR MG-4	08/28/22 0:20	UHOG
570-107575-6	200	-6.0	0.80	159.89	-2.94692	0.80	159.89		1.00	1.00	AIR MG-4	08/28/22 0:22	UHOG
570-107575-6	200	-6.8	0.77	154.55	6.5	1.44	288.44		1.87	1.87	AIR MG-4	08/28/22 0:22	UHOG
570-107575-8	200	-7.4	0.75	150.53	-3.63454	0.75	150.53		1.00	1.00	AIR MG-4	08/28/22 0:24	UHOG
570-107575-8	200	-7.4	0.75	150.53	5.9	1.40	280.27		1.86	1.86	AIR MG-4	08/28/22 0:24	UHOG

**Formulae:**

- Preadjusted Volume (L) = ((Preadjusted Pressure ("Hg) + 29.92 "Hg) \* Vol L) / 29.92 "Hg
- Adjusted Volume (L) = (( Adjusted Pressure (psig) + 14.7 psig) \* Vol L) / 14.7 psig
- Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

**Where:**

- 29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)
- 14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

Appendix E  
Data Validation Reports

---

# Data Validation Report – USEPA Stage 2A

July 7, 2022

Project: Los Cerritos Wetlands Authority Restoration Project  
 Project Number: 210090-01.01  
 Validation ID: AQ-2022-553601

This report summarizes the review of analytical results for 12 soil samples collected on June 15 and 17, 2022. The samples were collected by Anchor QEA, LLC, and submitted to Eurofins Calscience, LLC (ECL), in Garden Grove, California. Select sample aliquots were submitted to McCampbell Analytical, Inc., in Pittsburg, California. The following analytical parameter results were reviewed in this report:

- Total solids by Standard Method (SM) 2540G
- Salinity by SM 2510B
- Total organic carbon (TOC) by U.S. Environmental Protection Agency (USEPA) Method 9060A
- Total petroleum hydrocarbons (TPH) by USEPA Method 8015B
- Metals by USEPA Method 6020
- Mercury by USEPA Method 7471A
- Polycyclic aromatic hydrocarbon (PAH) Aroclors by USEPA Method 8270C select ion monitoring
- Pesticides by USEPA Method 8081A
- Polychlorinated biphenyl (PCB) Aroclors by USEPA Method 8082
- Volatile organic compounds (VOC) by USEPA Method 8620B

ECL sample delivery group numbers 570-100189-1 and 570-100189-2 were reviewed in this report. Sample IDs are presented in Table 1.

**Table 1**  
**Sample IDs**

Sample IDs	Laboratory Sample IDs	Matrix	Analyses
LCW-01/02-061522	570-100189-1	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides
LCW-03/04-061522	570-100189-2	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides
LCW-05-061722	570-100189-3	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides, VOCs
LCW-07-061722	570-100189-4	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides
LCW-08/09-061722	570-100189-5	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides
LCW-10/11-061722	570-100189-6	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides

Sample IDs	Laboratory Sample IDs	Matrix	Analyses
LCW-12/13-061722	570-100189-7	Soil	Total solids, salinity, TOC, TPH, metals, mercury, PAHs, PCB Aroclors, pesticides
LCW-02-061522	570-100189-8	Soil	VOCs
LCW-04-061522	570-100189-9	Soil	VOCs
LCW-09-061722	570-100189-10	Soil	VOCs
LCW-11-061622	570-100189-11	Soil	VOCs
LCW-12-061622	570-100189-12	Soil	VOCs

## Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures. QA/QC results were evaluated using the laboratory control limits and by using the following guidelines:

- *Quality Assurance Project Plan, Southern Los Cerritos Wetlands Restoration Project* (Anchor QEA 2021)
- *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (USEPA 1986)
- *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA 2020a)
- *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA 2020b)

Unless noted in this report, laboratory results for the samples listed in Table 1 were within QA/QC criteria.

## Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by ECL at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

## Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within holding times.

## Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequency and no target analytes were detected, except for TOC, which was detected in the method blank at a concentration between the method detection limit (MDL) and method reporting limit (MRL). Associated sample concentrations were significantly (five times) greater than the concentration of the blank, so no data were qualified.

## Field Quality Control

No field duplicate or equipment blank samples were required to be collected with this sample set.

## Surrogate Recoveries

Sample surrogate recoveries were within the laboratory control limits

## Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs) were analyzed at the required frequency and resulted in recoveries within project-required control limits, except for chloromethane, which recovered above the project limits in the LCS and LCSD. Associated samples were below detection, so no data were qualified.

## Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and/or matrix spike duplicate (MSD) samples were analyzed at the required frequency or LCS/LCSDs were analyzed in place of MS/MSDs. MS and MSD analyses conducted on non-project samples were not included in this evaluation. MS/MSD recoveries and relative percent difference (RPD) values were within project-required control limits, except for the following:

- Pesticides: 4,4'-DDE, 4,4'-DDT, and endrin recovered above control limits in the MS/MSD analyzed on sample LCW-08/09-061722. Only 4,4'-DDE was detected in the parent sample, and the result has been qualified "J" to indicate a potentially high bias.
- PAHs: Several PAH compounds recovered above the control limits in the MSD analyzed on sample LCW-05-061722. Six RPD values were above the control limit as well. These compounds were not detected in the parent sample, so no data were qualified.

Qualified results are summarized in Table 3 at the end of this report.

## Method Detection Limits and Method Reporting Limits

MDLs and MRLs were acceptable as reported. All values were reported using the laboratory MDLs. Values were reported as undiluted, or when reported as diluted, the MDL and MRL accurately reflects the dilution factor.

## Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the LCS/LCSD and MS/MSD recovery values, with the exceptions noted in prior sections. Precision was acceptable as demonstrated by the laboratory duplicates, LCS/LCSD, and MS/MSD RPD values. All data are acceptable as reported or qualified. Table 3 summarizes the qualifiers applied to the sample results reviewed in this report.

## Data Qualifier Definitions

J Indicates an estimated value.

**Table 3**  
**Data Qualification Summary**

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
LCW-08/09-061722	Pesticides	4,4'-DDE	2.3 µg/kg	2.3J µg/kg	MS %R above control limit

Notes:

%R: percent recovery

µg/kg: micrograms per kilogram

## References

Anchor QEA (Anchor QEA, LLC), 2021. *Sampling and Analysis Plan, Southern Los Cerritos Wetlands Restoration Project*. Prepared for Los Cerritos Wetlands Authority. July 2021.

USEPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. Third edition. Office of Solid Waste and Emergency Response. EPA-530/SW-846.

USEPA, 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-006. November 2020.

USEPA, 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-005. November 2020.

# Data Validation Report – USEPA Stage 2A September 14, 2022

Project: Los Cerritos Wetlands Authority Restoration Project  
 Project Number: 210090-01.01  
 Validation ID: AQ-2022-553658

This report summarizes the review of analytical results for 15 soil samples collected June 15 and 17, 2022. The samples were collected by Anchor QEA, LLC, and submitted to Eurofins Calscience, LLC (ECL), in Garden Grove, California. The following analytical parameter results were reviewed in this report:

- Total solids by Standard Method (SM) 2540 G
- Metals by U.S. Environmental Protection Agency (USEPA) Methods 6020 and 7471A
- Polychlorinated biphenyl (PCB) Aroclors by USEPA Method 8082

ECL sample delivery group number 570-107575-1 was reviewed in this report. Sample IDs are presented in Table 1.

**Table 1**  
**Sample IDs**

Sample IDs	Laboratory Sample IDs	Matrix	Analyses
LCW-02-Z-061522	570-107575-1	Soil	Total solids, metals
LCW-03-0_2-061522	570-107575-2	Soil	Total solids, PCB Aroclors
LCW-03-2_4-061522	570-107575-3	Soil	Total solids, PCB Aroclors
LCW-03-Z-061522	570-107575-4	Soil	Total solids, metals, PCB Aroclors
LCW-04-0_2-061522	570-107575-5	Soil	Total solids, PCB Aroclors
LCW-04-2_4-061522	570-107575-6	Soil	Total solids, PCB Aroclors
LCW-04-4_6-061522	570-107575-16	Soil	Total solids, PCB Aroclors
LCW-04-Z-061522	570-107575-8	Soil	Total solids, metals, PCB Aroclors
LCW-05-Z-061722	570-107575-9	Soil	Total solids, metals
LCW-07-Z-061722	570-107575-10	Soil	Total solids, metals
LCW-08-Z-061522	570-107575-11	Soil	Total solids, metals
LCW-09-Z-061722	570-107575-12	Soil	Total solids, metals
LCW-10-Z-061722	570-107575-13	Soil	Total solids, metals
LCW-12-Z-061522	570-107575-14	Soil	Total solids, metals
LCW-13-Z-061722	570-107575-15	Soil	Total solids, metals

## Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures. QA/QC results were evaluated using the following guidelines:

- *Sampling and Analysis Plan, Southern Los Cerritos Wetlands Restoration Project* (Anchor QEA 2021)
- *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (USEPA 1986)
- *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA 2020a)
- *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA 2020b)

Unless noted in this report, laboratory results for the samples listed in Table 1 were within QA/QC criteria.

## Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by ECL at the time of sample receipt. Samples were received in good condition except for LCW-07-Z-061722, which was received broken. The laboratory transferred the sample to a new jar upon receipt. All samples were received within the recommended temperature range.

## Sample Preservation and Holding Times

Samples were stored in frozen archive until delivered to the laboratory for analysis. Mercury was analyzed past the 28-day holding time and was qualified "J" to indicate a potentially low bias.

## Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequency and no target analytes were detected, except for barium and molybdenum, which were detected in the method blanks at concentrations between the method detection limit (MDL) and method reporting limit (MRL). Associated barium sample concentrations were significantly (five times) greater than the concentration of the blank, so no data were qualified. One molybdenum concentration associated with this method blank was detected at a concentration between the MDL and MRL; therefore, the result was reported as below detection at the reporting limit.

Qualified data are summarized in Table 2 at the end of this report.

## Field Quality Control

No field duplicate or equipment blank samples were required to be collected with this sample set.

## Surrogate Recoveries

Sample surrogate recoveries were within the laboratory control limits.

## Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency and resulted in recoveries and relative percent difference (RPD) values within project-required control limits.

## Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and/or matrix spike duplicate (MSD) samples were analyzed at the required frequency. MS and MSD samples analyzed on non-project samples were not evaluated. MS/MSD recoveries and RPD values were within project-required control limits, except for the following:

- PCB Aroclors: Aroclor-1016 and Aroclor-1260 recovered below control limits in the MSD analyzed on sample LCW-03-Z-061522, and the RPD was above the control limit. Parent sample results have been qualified "UJ" to indicate a potentially low bias.
- Metals: Antimony recovered below 30% in the MS and MSD analyzed on sample LCW-02-Z-061522. Low recovery of antimony is a common issue in sediments because in the presence of silicates, antimony can form insoluble oxides during the nitric acid digestion. Using hydrochloric acid could help minimize the issue but can also create chloride interference on the inductively coupled plasma mass spectrometry (ICP-MS). Associated sample results that were below detection were rejected; detected results have been qualified "J" to indicate a potentially low bias. Barium recovered above the project control limits, and associated sample results have been qualified "J" to indicate a potentially high bias.

Qualified results are summarized in Table 2 at the end of this report.

## Duplicate Samples

Duplicate samples were analyzed for total solids, and the RPD values were within project control limits.

## Method Detection Limits and Method Reporting Limits

MDLs and MRLs were acceptable as reported. All values were reported using the laboratory MDLs. Values were reported as undiluted, or when reported as diluted, the MDL and MRL accurately reflects the dilution factor.

## Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the

LCS/LCSD and MS/MSD recovery values, with the exceptions noted in a prior section. Precision was acceptable as demonstrated by the laboratory duplicates, LCS/LCSD, and MS/MSD RPD values. Most data are acceptable as reported or qualified. Two antimony results were rejected, but the metals completeness was 99%, which met the project completeness data quality objective. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

## Data Qualifier Definitions

- J Indicates an estimated value
- R Indicates the result is rejected and unusable.
- U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.
- UJ Indicates the compound or analyte of interest was analyzed for but not detected and the specified limit reported is estimated.

**Table 2**  
**Data Qualification Summary**

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
LCW-02-Z-061522	Metals	Antimony	0.341J mg/kg	0.341J mg/kg	MS/MSD below 30%
		Barium	179B F1 mg/kg	179J mg/kg	MS/MSD above control limit
		Mercury	0.0604J mg/kg	0.0604J mg/kg	Analyzed past holding time
LCW-03-Z-061522	PCBs	Aroclor 1016	6.6U µg/kg	6.6UJ µg/kg	MSD %R below control limit
		Aroclor 1221	6.6U µg/kg	6.6UJ µg/kg	
		Aroclor 1232	6.6U µg/kg	6.6UJ µg/kg	
		Aroclor 1242	6.6U µg/kg	6.6UJ µg/kg	
		Aroclor 1248	6.6U µg/kg	6.6UJ µg/kg	
		Aroclor 1254	5.9U µg/kg	5.9UJ µg/kg	
		Aroclor 1260	5.9U µg/kg	5.9UJ µg/kg	
		Aroclor 1262	5.9U µg/kg	5.9UJ µg/kg	
	Aroclor 1268	5.9U µg/kg	5.9UJ µg/kg		
	Metals	Antimony	0.196J mg/kg	0.196J mg/kg	MS/MSD below 30%
		Barium	135B mg/kg	135J mg/kg	MS/MSD above control limit
Mercury		0.0278J mg/kg	0.0278J mg/kg	Analyzed past holding time	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
LCW-04-Z-061522	Metals	Antimony	0.507J mg/kg	0.507J mg/kg	MS/MSD below 30%
		Barium	344B mg/kg	344J mg/kg	MS/MSD above control limit
		Mercury	0.0949J mg/kg	0.0949J mg/kg	Analyzed past holding time
LCW-05-Z-061722	Metals	Antimony	0.194J mg/kg	0.194J mg/kg	MS/MSD below 30%
		Barium	98.5B mg/kg	98.5J mg/kg	MS/MSD above control limit
		Mercury	0.0558J mg/kg	0.0558J mg/kg	Analyzed past holding time
LCW-07-Z-061722	Metals	Molybdenum	0.293J mg/kg	1.24U mg/kg	Method blank contamination
		Mercury	0.0202J mg/kg	0.0202J mg/kg	Analyzed past holding time
LCW-08-Z-061522	Metals	Antimony	0.159U mg/kg	R	MS/MSD below 30%
		Barium	68.7B mg/kg	68.7J mg/kg	MS/MSD above control limit
		Mercury	0.0259J mg/kg	0.0269J mg/kg	Analyzed past holding time
LCW-09-Z-061722	Metals	Antimony	0.496J mg/kg	0.496J mg/kg	MS/MSD below 30%
		Barium	166B mg/kg	166J mg/kg	MS/MSD above control limit
		Mercury	0.125 mg/kg	0.125J mg/kg	Analyzed past holding time
LCW-10-Z-061722	Metals	Antimony	0.379J mg/kg	0.379J mg/kg	MS/MSD below 30%
		Barium	146B mg/kg	146J mg/kg	MS/MSD above control limit
		Mercury	0.0479J mg/kg	0.0479J mg/kg	Analyzed past holding time
LCW-12-Z-061522	Metals	Antimony	0.211J mg/kg	0.211J mg/kg	MS/MSD below 30%
		Barium	187B mg/kg	187J mg/kg	MS/MSD above control limit
		Mercury	0.0806J mg/kg	0.0806J mg/kg	Analyzed past holding time
LCW-13-Z-061722	Metals	Antimony	0.170U mg/kg	R	MS/MSD below 30%
		Barium	97.9B mg/kg	97.9J mg/kg	MS/MSD above control limit
		Mercury	0.0632J mg/kg	0.0632J mg/kg	Analyzed past holding time

Notes:

%R: percent recovery

µg/kg: micrograms per kilogram

mg/kg: milligrams per kilogram

## References

Anchor QEA (Anchor QEA, LLC), 2021. *Sampling and Analysis Plan, Southern Los Cerritos Wetlands Restoration Project*. Prepared for Los Cerritos Wetlands Authority. July 2021.

USEPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. Third edition. Office of Solid Waste and Emergency Response. EPA-530/SW-846.

USEPA, 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-006. November 2020.

USEPA, 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-005. November 2020.

# Appendix F

## Geotechnical Laboratory Report

---



Technologies to manage risk for infrastructure

Boston  
Atlanta  
Chicago  
Los Angeles  
New York

www.geotesting.com

# Transmittal

TO:

Chris Osuch  
Anchor QEA, LLC  
1201 3rd Ave, Suite 2600  
Seattle, WA 98101

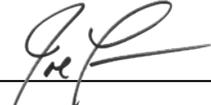
DATE: 8/26/2022	GTX NO: 315751
RE: Los Cerritos Wetland Restoration	

COPIES	DATE	DESCRIPTION
	8/26/2022	July 2022 Laboratory Test Report

REMARKS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SIGNED:   
Jonathan Campbell, Laboratory Manager

APPROVED BY:   
Joe Tomei, Vice President and Director of Testing Services

August 26, 2022

Chris Osuch  
Anchor QEA, LLC  
1201 3rd Ave, Suite 2600  
Seattle, WA 98101

RE: Los Cerritos Wetland Restoration, Seal Beach, CA (GTX-315751)

Dear Chris Osuch:

Enclosed are the test results you requested for the above referenced project. GeoTesting Express, Inc. (GTX) received 26 samples from you on 7/5/2022.

GTX performed the following tests on these samples:

- 19 ASTM D2216 - Moisture Content
- 7 ASTM D4318 - Atterberg Limits
- 7 ASTM D6913 - Sieve Analysis
- 9 ASTM D6913/D7928 - Grain Size Analysis - Sieve and Hydrometer

A copy of your test request is attached.

The results presented in this report apply only to the items tested. This report shall not be reproduced except in full, without written approval from GeoTesting Express. The remainder of these samples will be retained for a period of sixty (60) days and will then be discarded unless otherwise notified by you. Please call me if you have any questions or require additional information. Thank you for allowing GeoTesting Express the opportunity of providing you with testing services. We look forward to working with you again in the future.

Respectfully yours,



Jonathan Campbell  
Laboratory Manager



*Technologies to manage risk  
for infrastructure*

Boston  
Atlanta  
Chicago  
Los Angeles  
New York

[www.geotesting.com](http://www.geotesting.com)

---

**Geotechnical Test Report**

**8/26/2022**

---

**GTX-315751**

**Los Cerritos Wetland Restoration**

**Seal Beach, CA**

**Client Project No.: 210090-01.01**

Prepared for:

**Anchor QEA, LLC**

---



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	07/19/22
Depth :	---	Test Id:	676670
		Tested By:	ckg
		Checked By:	ank

## Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content, %
---	LCW- 05-0-1.5	---	Moist, dark grayish brown silty sand with gravel	3.1
---	LCW- 05-0-4.5-6	---	Moist, dark yellowish brown clay	17.0
---	LCW- 09-0-1.5	---	Moist, brown sandy silt	11.9
---	LCW- 09-6-7.5	---	Moist, gray silt	55.3
---	LCW- 11-0-2	---	Moist, grayish brown silty sand	5.5
---	LCW- 11-4-6	---	Moist, dark gray clay	37.7
---	LCW- 13-0-1.5	---	Moist, black, sandy silt with gravel	10.9
---	LCW- 13-4.5-6	---	Moist, dark grayish brown clay	40.7
---	LCW- 17-0-1.5	---	Moist, light brownish gray sand with silt	2.2
---	LCW- 17-5-6.5	---	Moist, light yellowish brown gravelly sand	8.3

Notes: Temperature of Drying : 110° Celsius



Client:	Anchor OEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	---
Sample ID:	---	Test Date:	07/26/22
Depth :	---	Test Id:	676679
		Tested By:	ckg
		Checked By:	ank

## Moisture Content of Soil and Rock - ASTM D2216

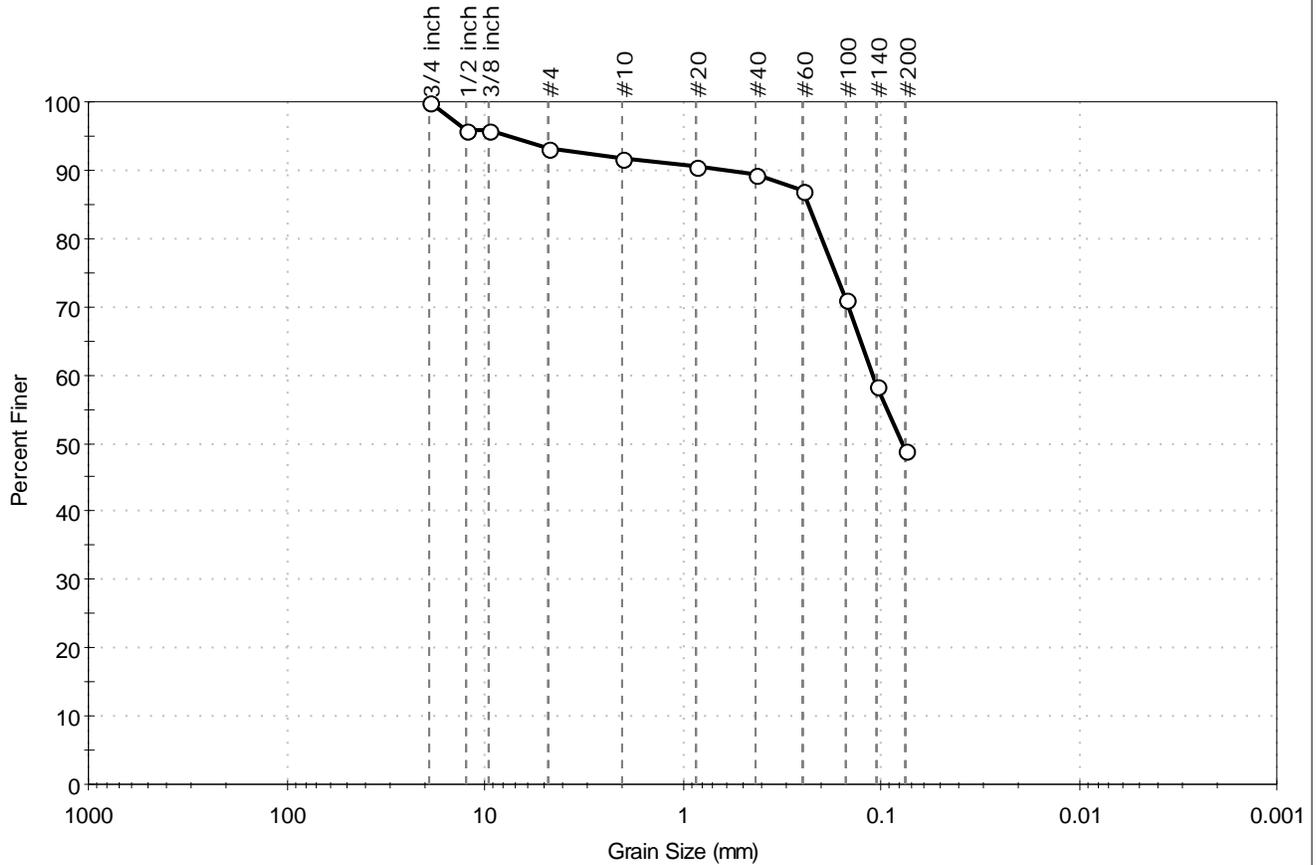
Boring ID	Sample ID	Depth	Description	Moisture Content, %
---	LCW- 17-10-11.5	---	Moist, dark gray clay	36.2
---	LCW- 17-15-16.5	---	Moist, dark gray clay	189.9
---	LCW- 17-20-21.5	---	Moist, dark gray clayey sand	15.8
---	LCW- 18-0-1.5	---	Moist, grayish brown silty sand	2.6
---	LCW- 18-5-6.5	---	Moist, dark grayish brown silty sand	28.4
---	LCW- 18-10-11.5	---	Moist, gray clay	56.1
---	LCW- 18-15.4-16.3	---	Moist, dark gray silty sand	18.6
---	LCW- 18-20-21.5	---	Moist, very dark grayish brown silty sand	16.5
---	LCW- 18-25-26.5	---	Moist, olive brown silty sand	28.1

Notes: Temperature of Drying : 110° Celsius



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-01/02-061522	Test Date:	07/13/22
Depth:	---	Checked By:	ank
		Test Id:	676654
Test Comment:	---		
Visual Description:	Moist, brown silty sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	6.9	44.2	48.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	96		
3/8 inch	9.50	96		
#4	4.75	93		
#10	2.00	92		
#20	0.85	91		
#40	0.42	90		
#60	0.25	87		
#100	0.15	71		
#140	0.11	58		
#200	0.075	49		

<u>Coefficients</u>	
D <sub>85</sub> = 0.2350 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = 0.1109 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = 0.0781 mm	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

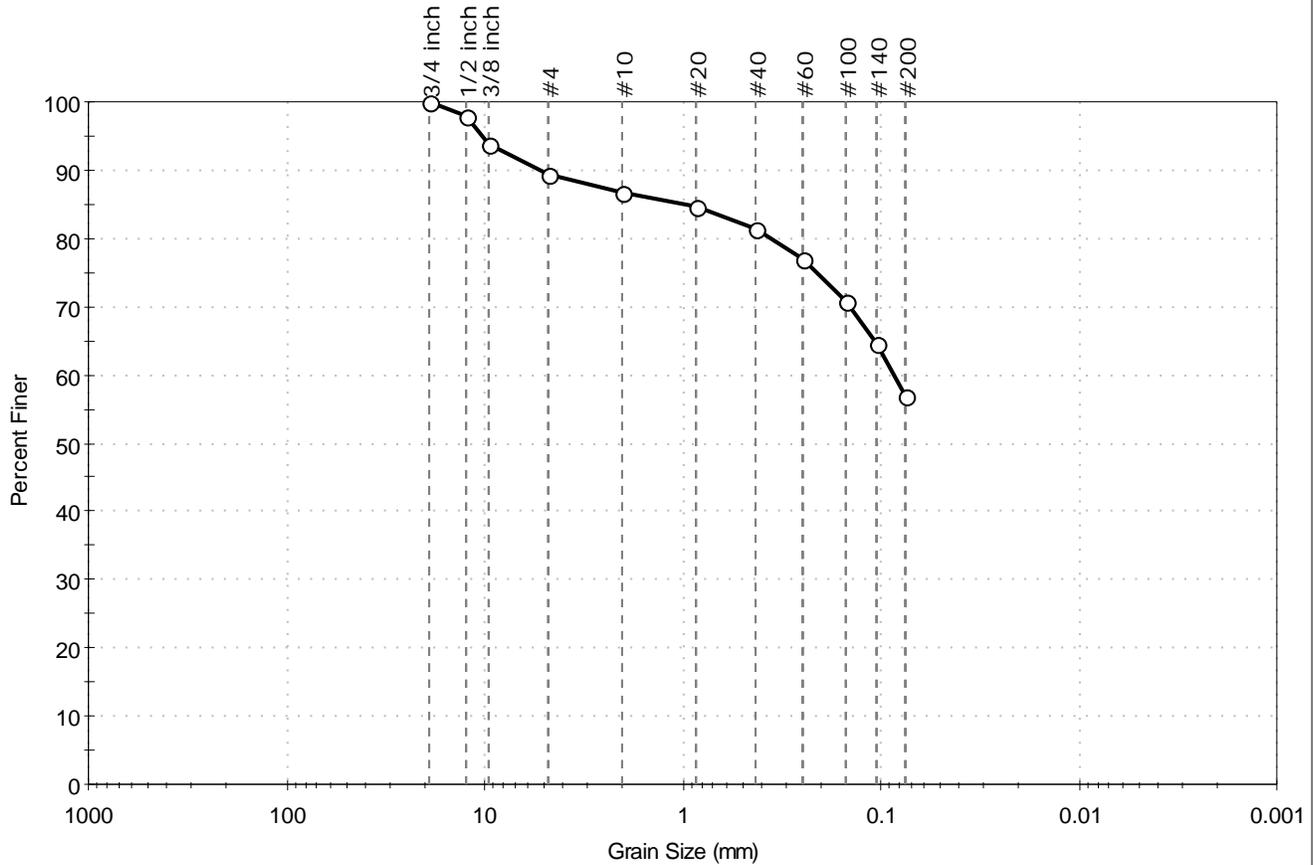
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-03/04-061522	Test Date:	07/13/22
Depth:	---	Checked By:	ank
		Test Id:	676655
Test Comment:	---		
Visual Description:	Moist, olive brown sandy silt		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	10.5	32.7	56.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	98		
3/8 inch	9.50	94		
#4	4.75	89		
#10	2.00	87		
#20	0.85	85		
#40	0.42	82		
#60	0.25	77		
#100	0.15	71		
#140	0.11	64		
#200	0.075	57		

<u>Coefficients</u>	
D <sub>85</sub> = 1.0040 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = 0.0867 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = N/A	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

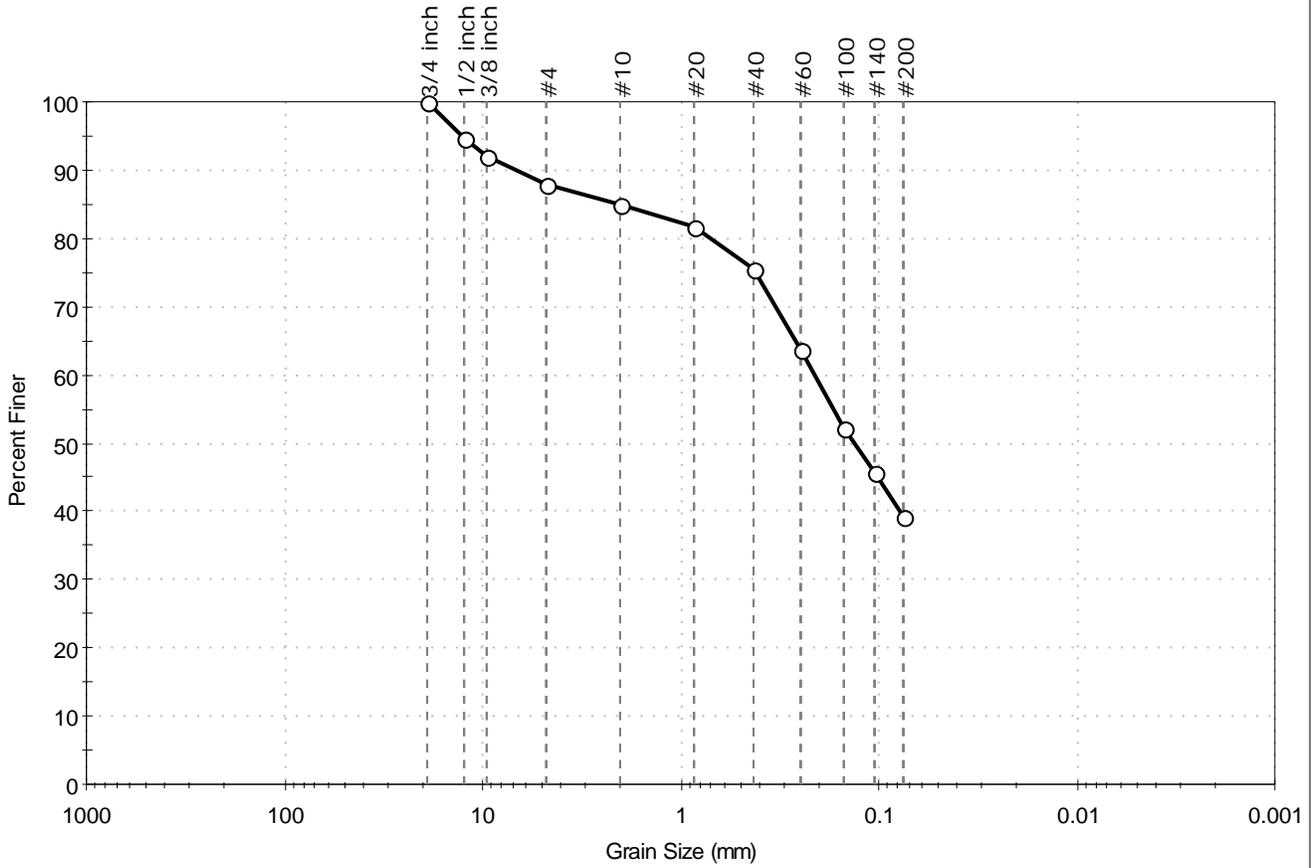
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-5-061722	Test Date:	07/13/22
Depth:	---	Test Id:	676656
Test Comment:	---		
Visual Description:	Moist, brown silty sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	12.3	48.4	39.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	95		
3/8 inch	9.50	92		
#4	4.75	88		
#10	2.00	85		
#20	0.85	82		
#40	0.42	75		
#60	0.25	64		
#100	0.15	52		
#140	0.11	46		
#200	0.075	39		

<u>Coefficients</u>	
D <sub>85</sub> = 2.1024 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = 0.2113 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = 0.1329 mm	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

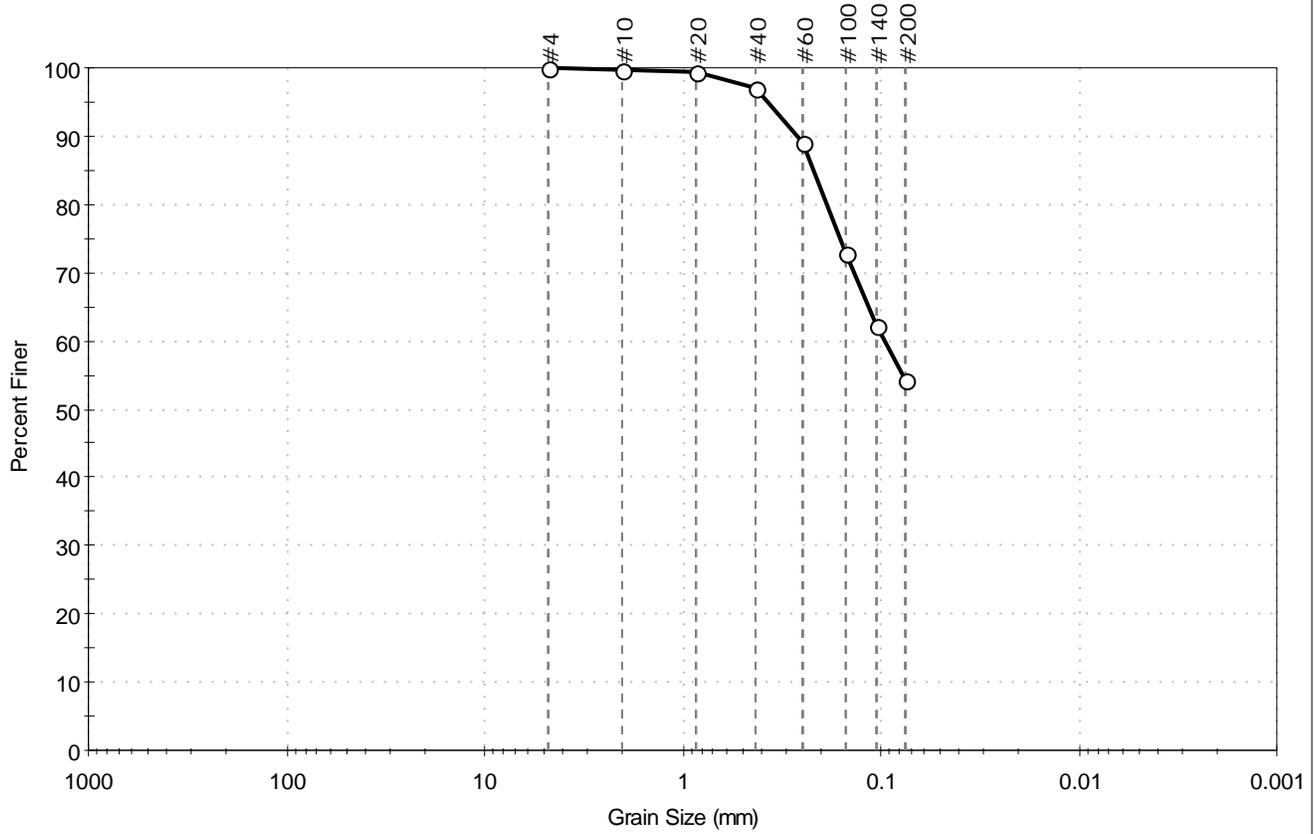
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA		
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-07-061722	Test Date:	07/13/22
Depth:	---	Test Id:	676657
Test Comment:	---	Tested By:	ckg
Visual Description:	Moist, very dark gray sandy clay	Checked By:	ank
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	45.6	54.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	97		
#60	0.25	89		
#100	0.15	73		
#140	0.11	62		
#200	0.075	54		

<u>Coefficients</u>	
D <sub>85</sub> = 0.2202 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = 0.0958 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = N/A	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

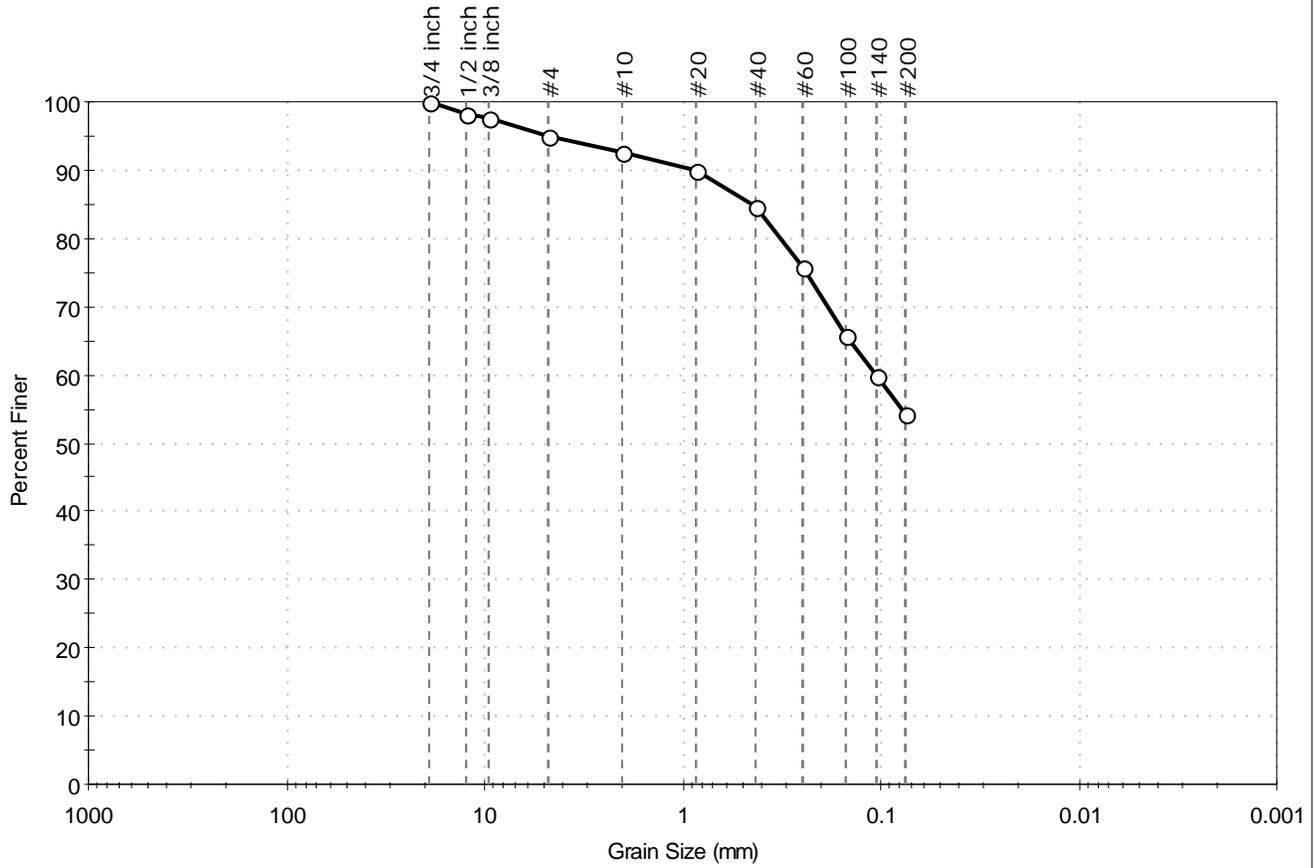
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---



Client:	Anchor QEA, LLC		Project No:	GTX-315751	
Project:	Los Cerritos Wetland Restoration				
Location:	Seal Beach, CA	Sample Type:	bag	Tested By:	ckg
Boring ID:	---	Test Date:	07/13/22	Checked By:	ank
Sample ID:	LCW-08/09-061722	Test Id:	676658		
Depth:	---				
Test Comment:	---				
Visual Description:	Moist, dark olive brown sandy silt				
Sample Comment:	---				

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	4.9	40.8	54.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	98		
3/8 inch	9.50	98		
#4	4.75	95		
#10	2.00	93		
#20	0.85	90		
#40	0.425	85		
#60	0.25	76		
#100	0.15	66		
#140	0.11	60		
#200	0.075	54		

<u>Coefficients</u>	
D <sub>85</sub> = 0.4443 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = 0.1068 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = N/A	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

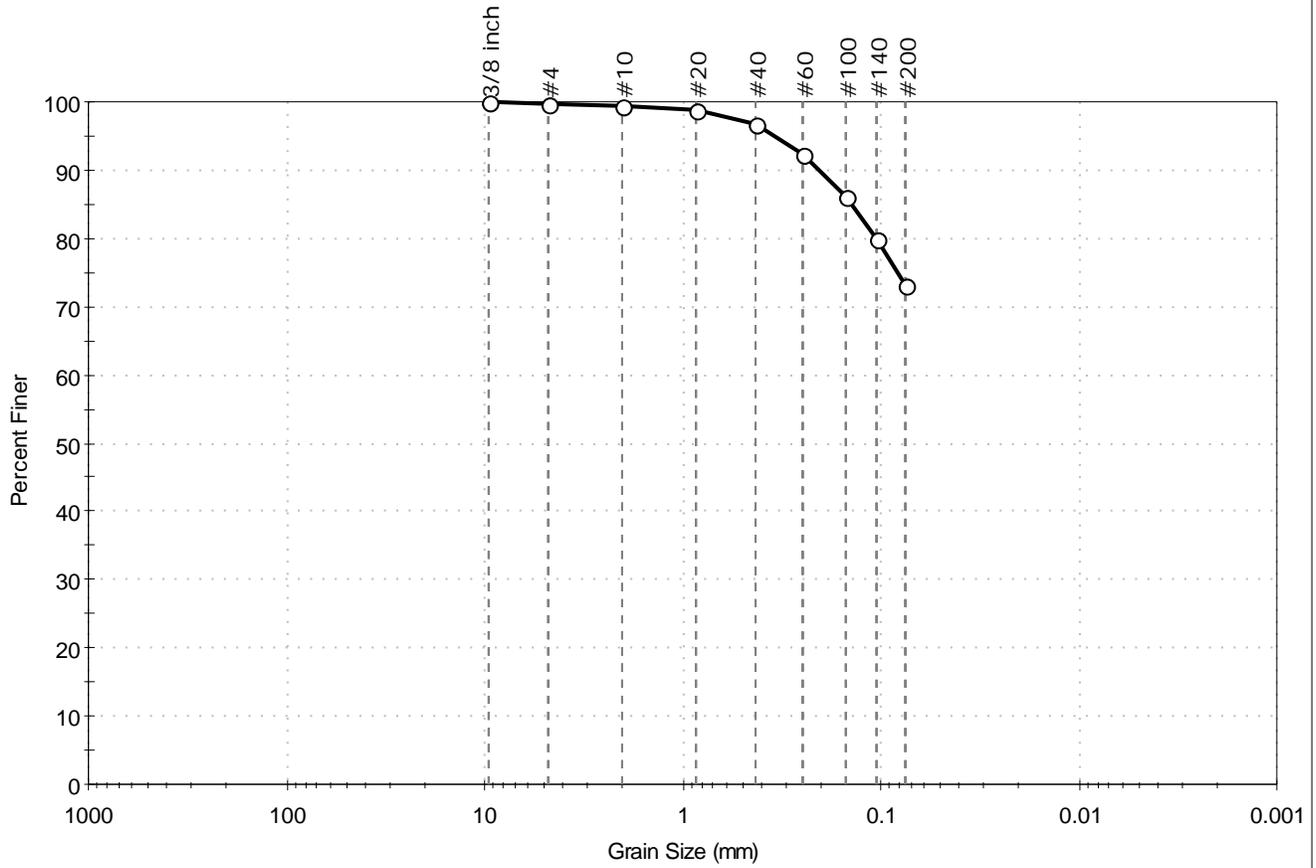
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-10/11-061722	Test Date:	07/13/22
Depth:	---	Tested By:	ckg
		Checked By:	ank
		Test Id:	676659
Test Comment:	---		
Visual Description:	Moist, dark grayish brown silt with sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.3	26.6	73.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	97		
#60	0.25	92		
#100	0.15	86		
#140	0.11	80		
#200	0.075	73		

<u>Coefficients</u>	
D <sub>85</sub> = 0.1413 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = N/A	D <sub>15</sub> = N/A
D <sub>50</sub> = N/A	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

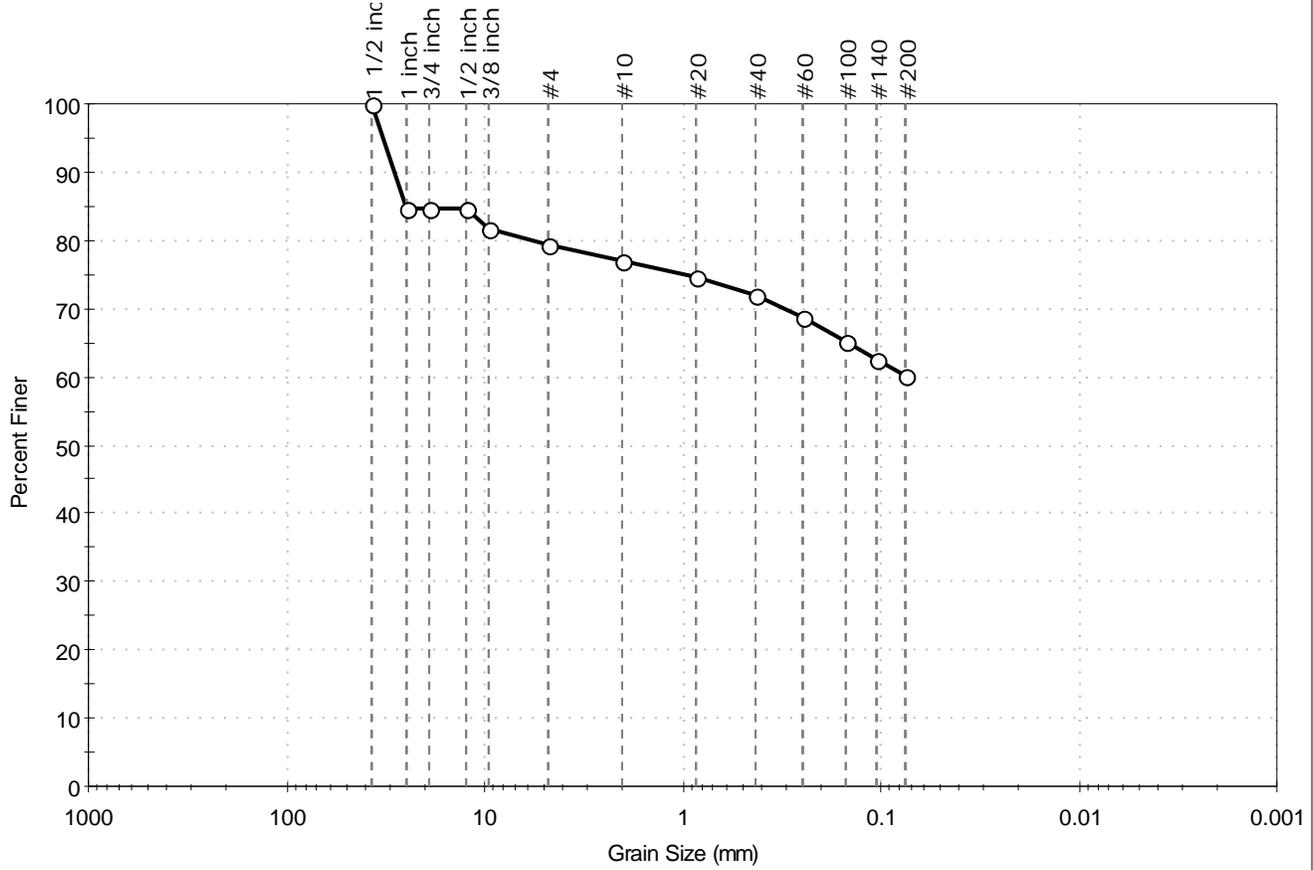
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-12-13-061722	Test Date:	07/13/22
Depth:	---	Checked By:	ank
Test Comment:	---		
Visual Description:	Moist, very dark gray gravelly clay with sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	20.7	19.1	60.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 1/2 inch	37.50	100		
1 inch	25.00	85		
3/4 inch	19.00	85		
1/2 inch	12.50	85		
3/8 inch	9.50	82		
#4	4.75	79		
#10	2.00	77		
#20	0.85	75		
#40	0.42	72		
#60	0.25	69		
#100	0.15	65		
#140	0.11	63		
#200	0.075	60		

<u>Coefficients</u>	
D <sub>85</sub> = 25.2535 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = N/A	D <sub>15</sub> = N/A
D <sub>50</sub> = N/A	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

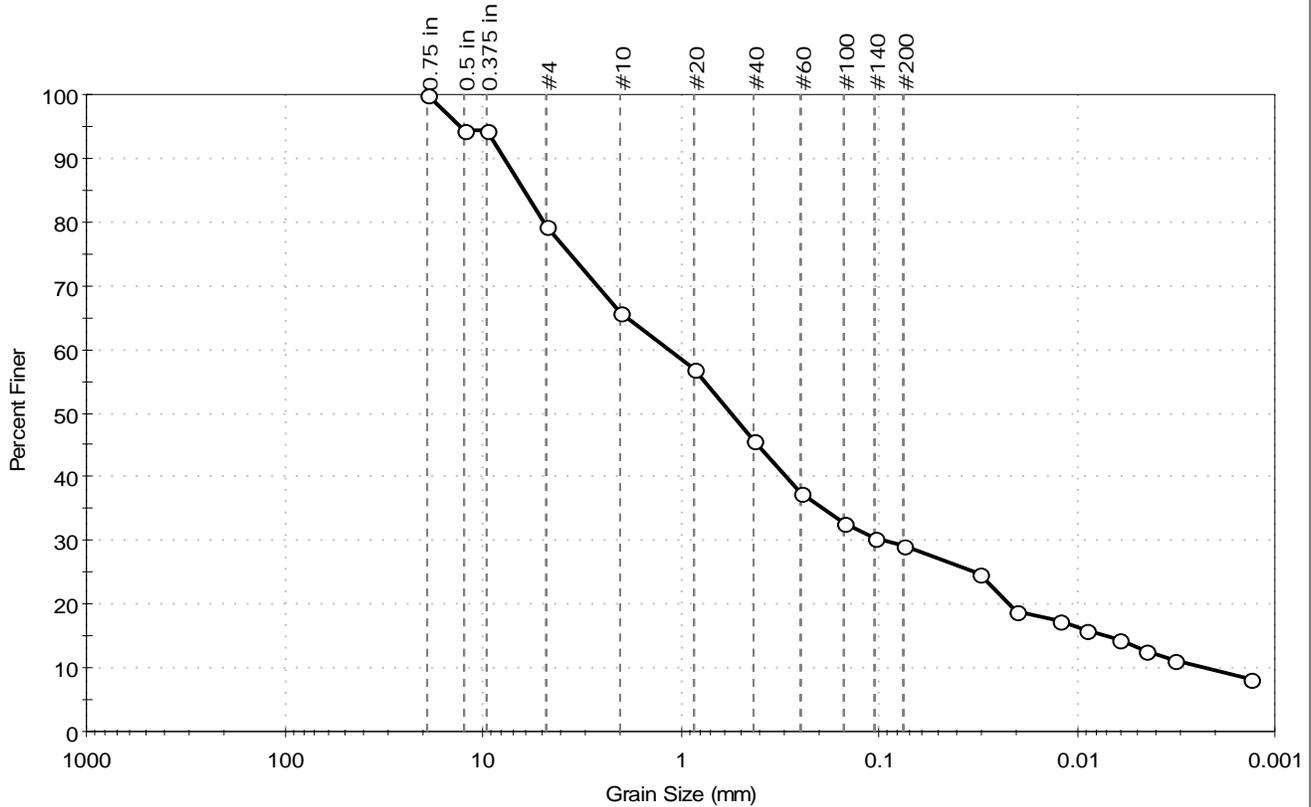
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	ANGULAR
Sand/Gravel Hardness :	HARD



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Sample Type:	bag
Boring ID:	---	Tested By:	ckg
Sample ID:	LCW-05-0-1.5	Test Date:	07/26/22
Depth:	---	Checked By:	ank
		Test Id:	676687
Test Comment:	---		
Visual Description:	Moist, dark grayish brown silty sand with gravel		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	20.8	50.1	29.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	95		
0.375 in	9.50	95		
#4	4.75	79		
#10	2.00	66		
#20	0.85	57		
#40	0.42	46		
#60	0.25	38		
#100	0.15	33		
#140	0.11	31		
#200	0.075	29		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0310	25		
---	0.0203	19		
---	0.0121	17		
---	0.0089	16		
---	0.0062	14		
---	0.0045	13		
---	0.0032	11		
---	0.0013	8		

<u>Coefficients</u>	
D <sub>85</sub> = 6.1646 mm	D <sub>30</sub> = 0.0933 mm
D <sub>60</sub> = 1.1465 mm	D <sub>15</sub> = 0.0073 mm
D <sub>50</sub> = 0.5548 mm	D <sub>10</sub> = 0.0022 mm
C <sub>u</sub> = 521.136	C <sub>c</sub> = 3.451

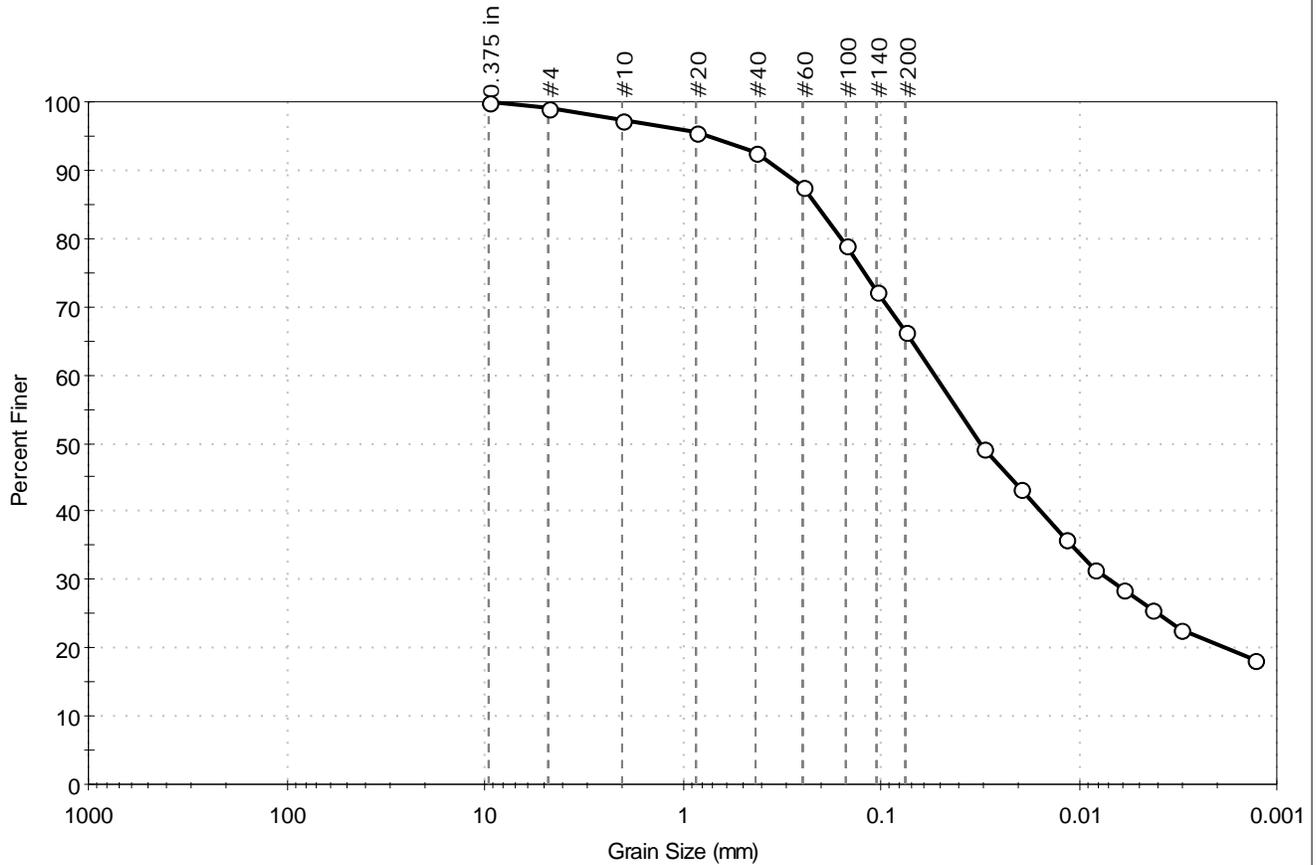
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Sample Type:	bag
Boring ID:	---	Tested By:	ckg
Sample ID:	LCW-09-0-1.5	Test Date:	07/26/22
Depth:	---	Checked By:	ank
Test Comment:	---	Test Id:	676688
Visual Description:	Moist, brown sandy silt		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.8	32.8	66.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	97		
#20	0.85	96		
#40	0.42	93		
#60	0.25	87		
#100	0.15	79		
#140	0.11	72		
#200	0.075	66		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0300	49		
---	0.0196	43		
---	0.0117	36		
---	0.0085	32		
---	0.0060	29		
---	0.0043	26		
---	0.0031	23		
---	0.0013	18		

<u>Coefficients</u>	
D <sub>85</sub> = 0.2144 mm	D <sub>30</sub> = 0.0069 mm
D <sub>60</sub> = 0.0532 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = 0.0311 mm	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

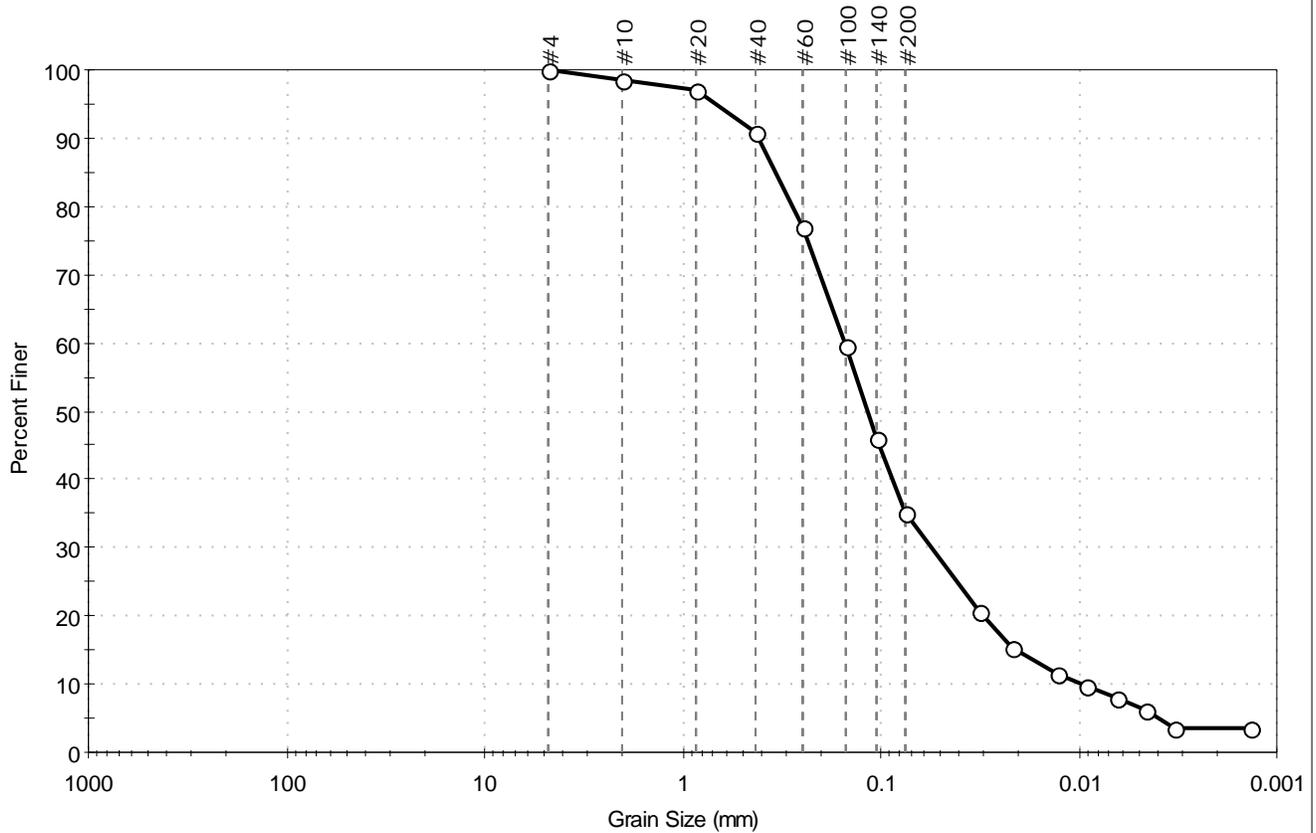
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Tested By:	ckg
Boring ID:	---	Checked By:	ank
Sample ID:	LCW-11-0-2	Test Date:	07/26/22
Depth:	---	Test Id:	676689
Test Comment:	---		
Visual Description:	Moist, grayish brown silty sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	64.8	35.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	97		
#40	0.42	91		
#60	0.25	77		
#100	0.15	60		
#140	0.11	46		
#200	0.075	35		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0320	21		
---	0.0219	15		
---	0.0129	12		
---	0.0092	10		
---	0.0064	8		
---	0.0047	6		
---	0.0033	4		
---	0.0014	4		

<u>Coefficients</u>	
D <sub>85</sub> = 0.3393 mm	D <sub>30</sub> = 0.0553 mm
D <sub>60</sub> = 0.1517 mm	D <sub>15</sub> = 0.0212 mm
D <sub>50</sub> = 0.1174 mm	D <sub>10</sub> = 0.0094 mm
C <sub>u</sub> = 16.138	C <sub>c</sub> = 2.145

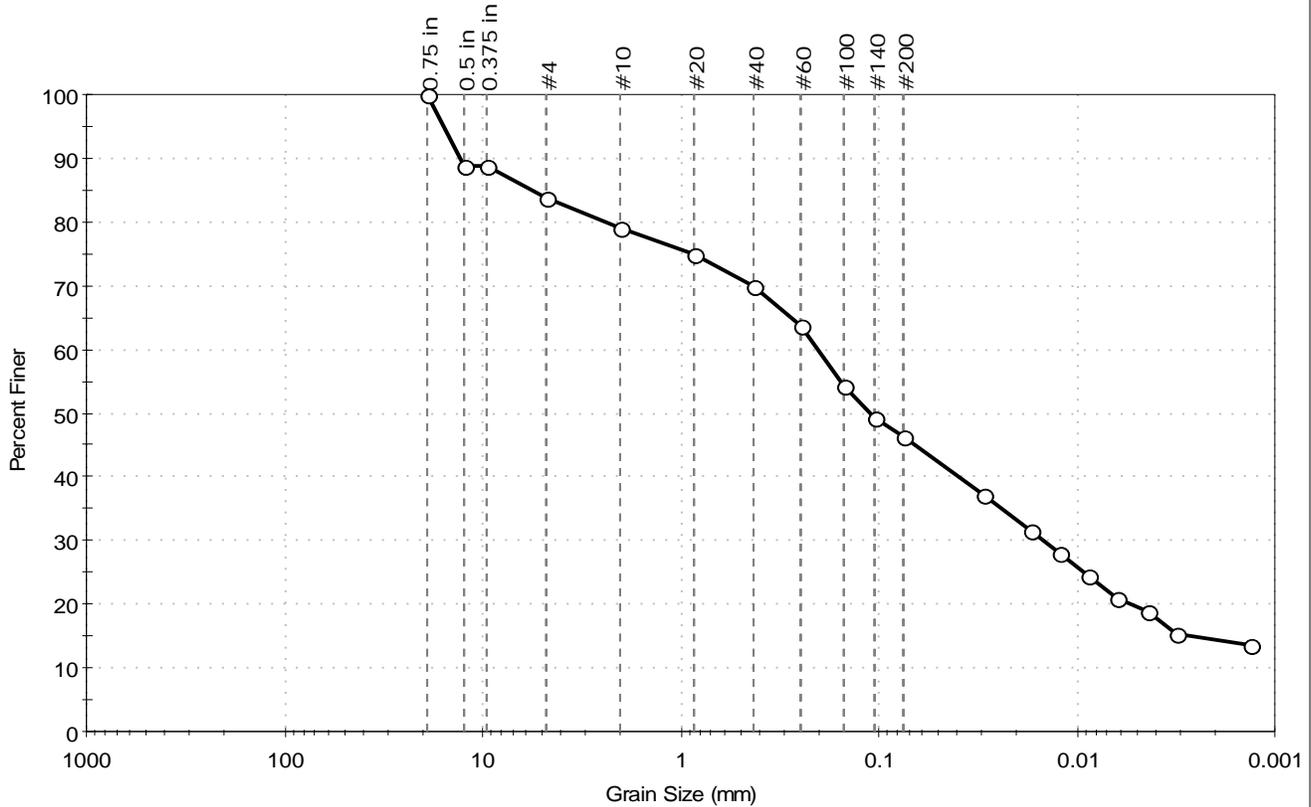
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Sample Type:	bag
Boring ID:	---	Tested By:	ckg
Sample ID:	LCW-13-0-1.5	Test Date:	07/26/22
Depth:	---	Checked By:	ank
Test Comment:	---	Test Id:	676690
Visual Description:	Moist, black silty sand with gravel		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	16.2	37.6	46.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	89		
0.375 in	9.50	89		
#4	4.75	84		
#10	2.00	79		
#20	0.85	75		
#40	0.42	70		
#60	0.25	64		
#100	0.15	54		
#140	0.11	49		
#200	0.075	46		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0295	37		
---	0.0170	32		
---	0.0123	28		
---	0.0087	24		
---	0.0063	21		
---	0.0044	19		
---	0.0032	15		
---	0.0013	14		

<u>Coefficients</u>	
D <sub>85</sub> = 5.6314 mm	D <sub>30</sub> = 0.0146 mm
D <sub>60</sub> = 0.2036 mm	D <sub>15</sub> = 0.0026 mm
D <sub>50</sub> = 0.1112 mm	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

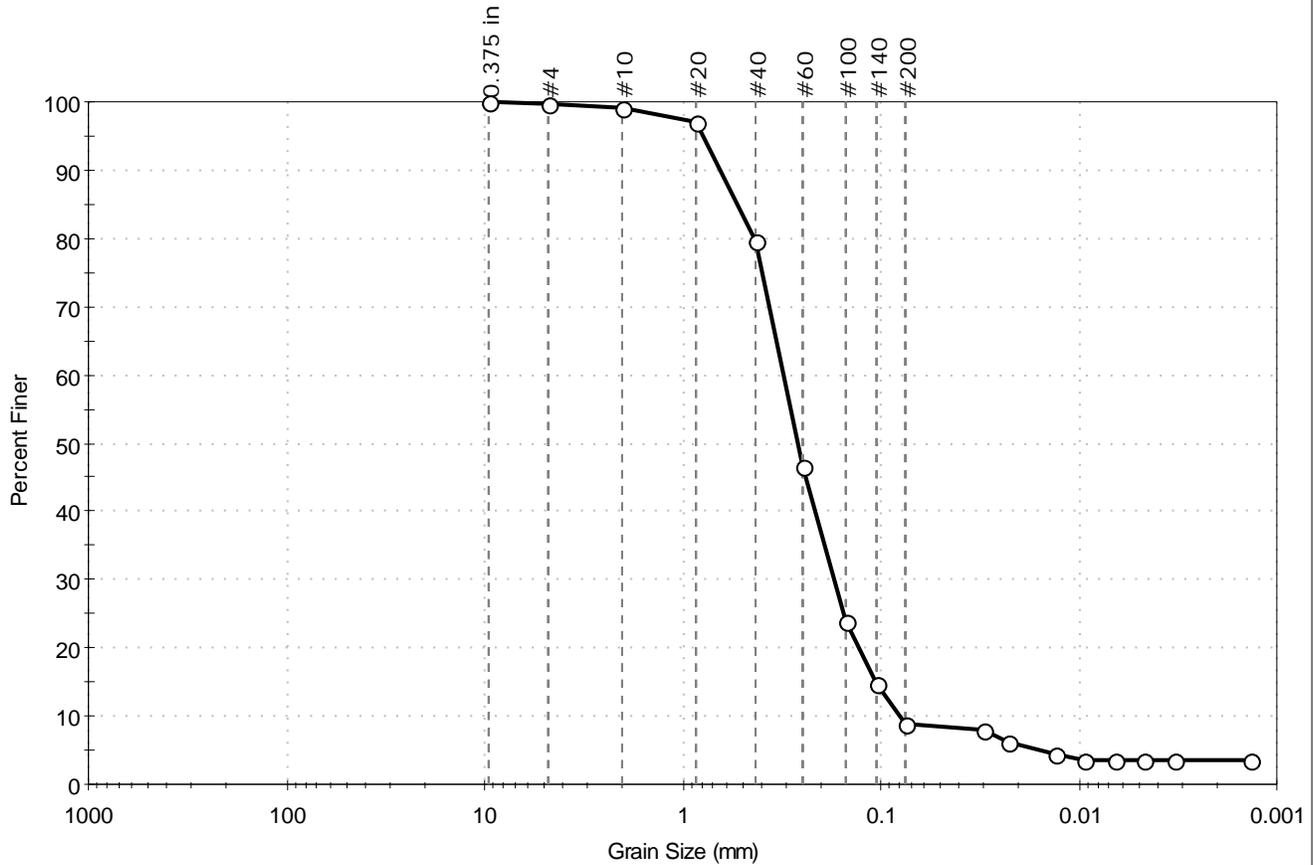
<u>Classification</u>	
<u>ASTM</u>	N/A
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Sample Type:	bag
Boring ID:	---	Tested By:	ckg
Sample ID:	LCW-17-0-1.5	Test Date:	07/26/22
Depth:	---	Checked By:	ank
		Test Id:	676691
Test Comment:	---		
Visual Description:	Moist, light brownish gray sand with silt		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.4	90.7	8.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	99		
#20	0.85	97		
#40	0.42	80		
#60	0.25	47		
#100	0.15	24		
#140	0.11	15		
#200	0.075	8.9		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0300	8		
---	0.0228	6		
---	0.0132	4		
---	0.0094	3		
---	0.0065	3		
---	0.0047	3		
---	0.0033	3		
---	0.0014	3		

Coefficients	
D <sub>85</sub> = 0.5240 mm	D <sub>30</sub> = 0.1722 mm
D <sub>60</sub> = 0.3097 mm	D <sub>15</sub> = 0.1072 mm
D <sub>50</sub> = 0.2639 mm	D <sub>10</sub> = 0.0799 mm
C <sub>u</sub> = 3.876	C <sub>c</sub> = 1.198

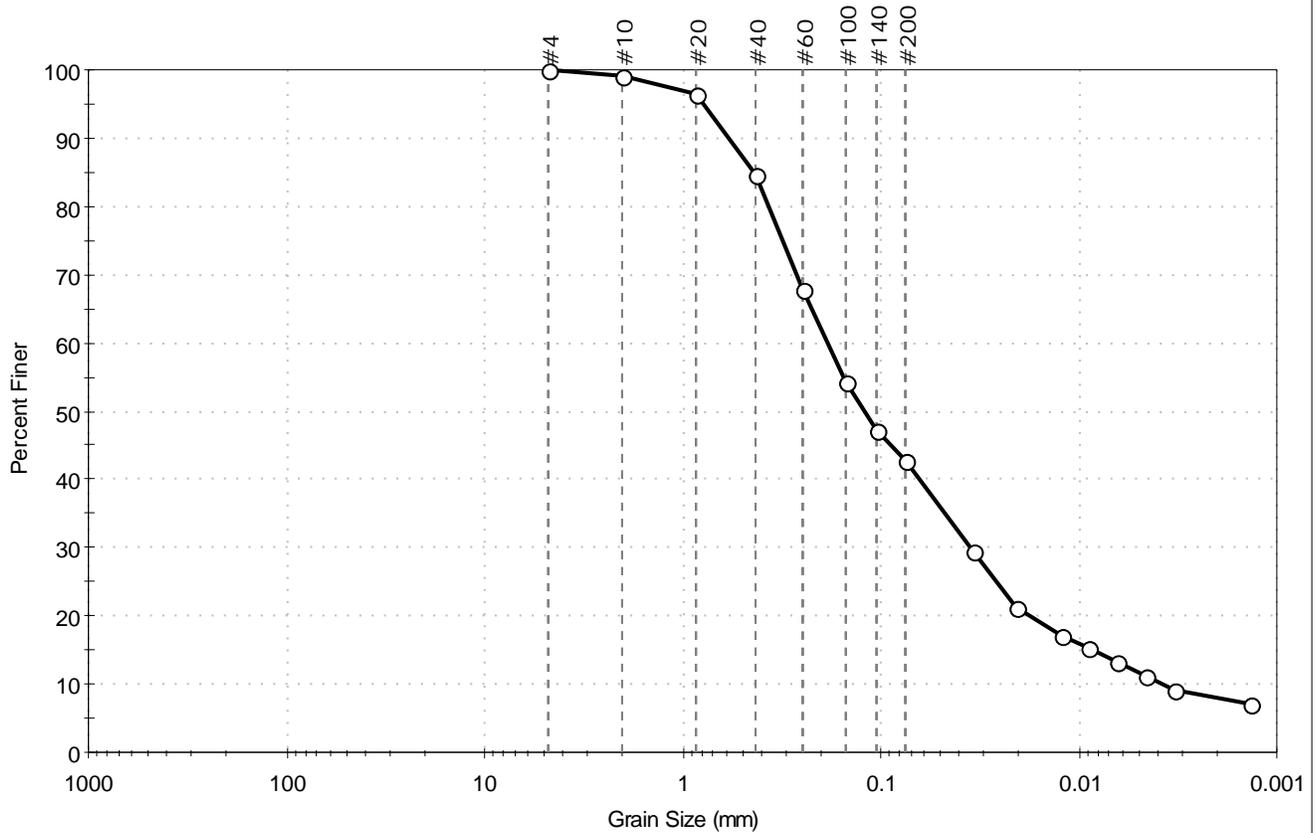
Classification	
ASTM	N/A
AASHTO	Fine Sand (A-3 (1))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA		
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-17-20-21.5	Test Date:	07/26/22
Depth:	---	Test Id:	676692
Test Comment:	---	Tested By:	ckg
Visual Description:	Moist, dark gray clayey sand	Checked By:	ank
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	57.3	42.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	99		
#20	0.85	97		
#40	0.42	85		
#60	0.25	68		
#100	0.15	54		
#140	0.11	47		
#200	0.075	43		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0342	29		
---	0.0205	21		
---	0.0122	17		
---	0.0089	15		
---	0.0064	13		
---	0.0046	11		
---	0.0033	9		
---	0.0014	7		

Coefficients	
D <sub>85</sub> = 0.4335 mm	D <sub>30</sub> = 0.0354 mm
D <sub>60</sub> = 0.1867 mm	D <sub>15</sub> = 0.0087 mm
D <sub>50</sub> = 0.1217 mm	D <sub>10</sub> = 0.0038 mm
C <sub>u</sub> = 49.132	C <sub>c</sub> = 1.766

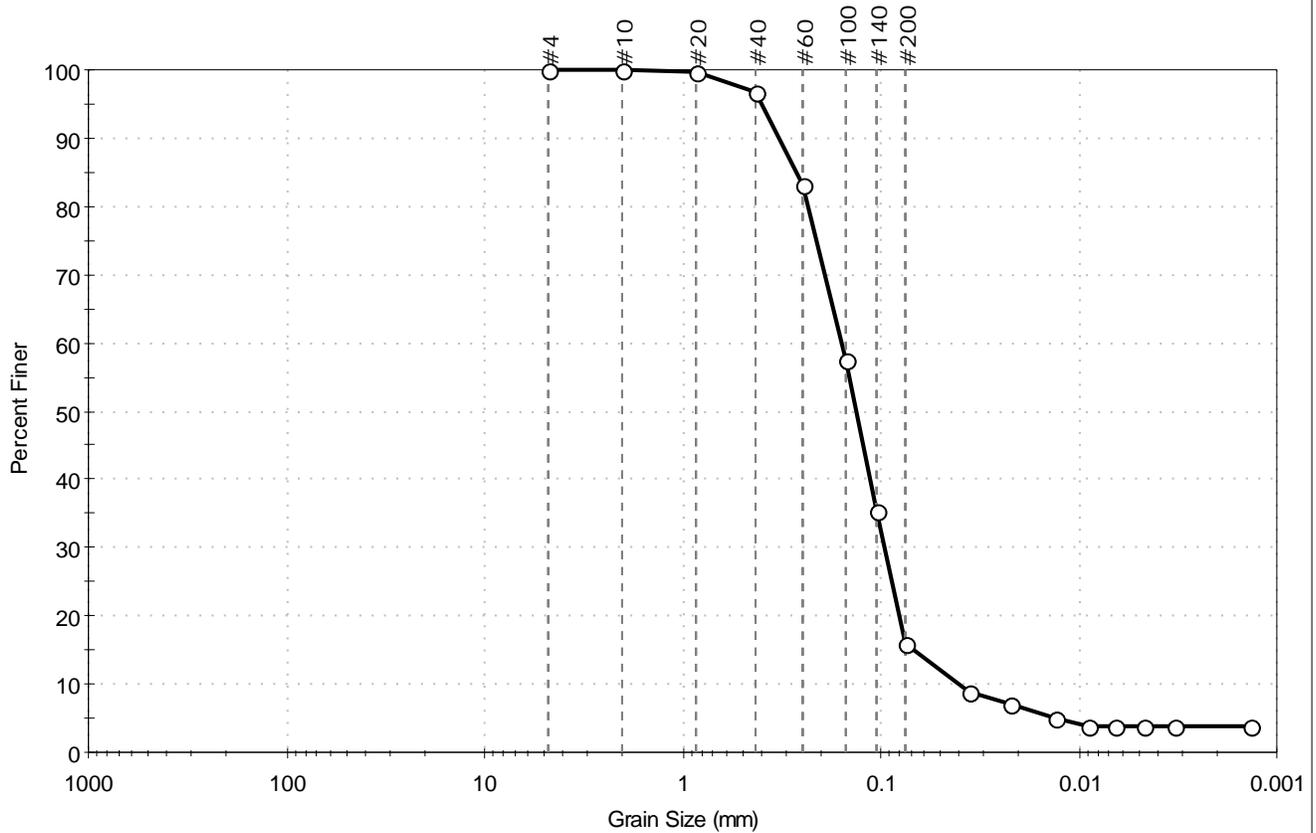
Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA		
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-18-5-6.5	Test Date:	07/26/22
Depth:	---	Test Id:	676693
Test Comment:	---	Tested By:	ckg
Visual Description:	Moist, dark grayish brown silty sand	Checked By:	ank
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.0	84.0	16.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	97		
#60	0.25	83		
#100	0.15	57		
#140	0.11	35		
#200	0.075	16		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0359	9		
---	0.0221	7		
---	0.0133	5		
---	0.0090	4		
---	0.0066	4		
---	0.0047	4		
---	0.0033	4		
---	0.0014	4		

<u>Coefficients</u>	
D <sub>85</sub> = 0.2695 mm	D <sub>30</sub> = 0.0965 mm
D <sub>60</sub> = 0.1579 mm	D <sub>15</sub> = 0.0678 mm
D <sub>50</sub> = 0.1335 mm	D <sub>10</sub> = 0.0401 mm
C <sub>u</sub> = 3.938	C <sub>c</sub> = 1.471

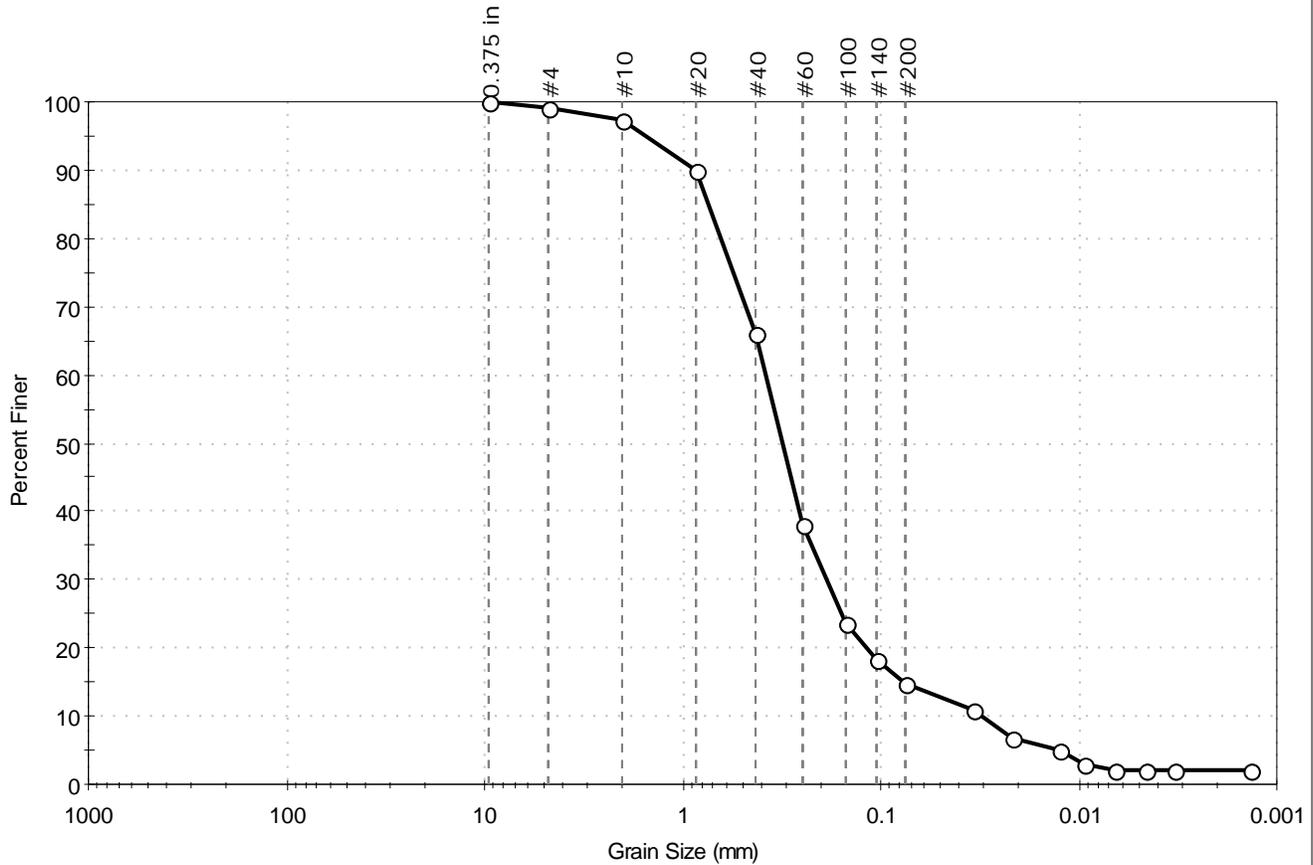
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA		
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-18-20-21.5	Test Date:	07/26/22
Depth:	---	Test Id:	676694
Test Comment:	---	Tested By:	ckg
Visual Description:	Moist, very dark grayish brown silty sand	Checked By:	ank
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	1.0	84.3	14.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	97		
#20	0.85	90		
#40	0.42	66		
#60	0.25	38		
#100	0.15	23		
#140	0.11	18		
#200	0.075	15		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0343	11		
---	0.0215	7		
---	0.0127	5		
---	0.0094	3		
---	0.0067	2		
---	0.0047	2		
---	0.0033	2		
---	0.0014	2		

Coefficients	
D <sub>85</sub> = 0.7353 mm	D <sub>30</sub> = 0.1889 mm
D <sub>60</sub> = 0.3786 mm	D <sub>15</sub> = 0.0771 mm
D <sub>50</sub> = 0.3136 mm	D <sub>10</sub> = 0.0311 mm
C <sub>u</sub> = 12.174	C <sub>c</sub> = 3.031

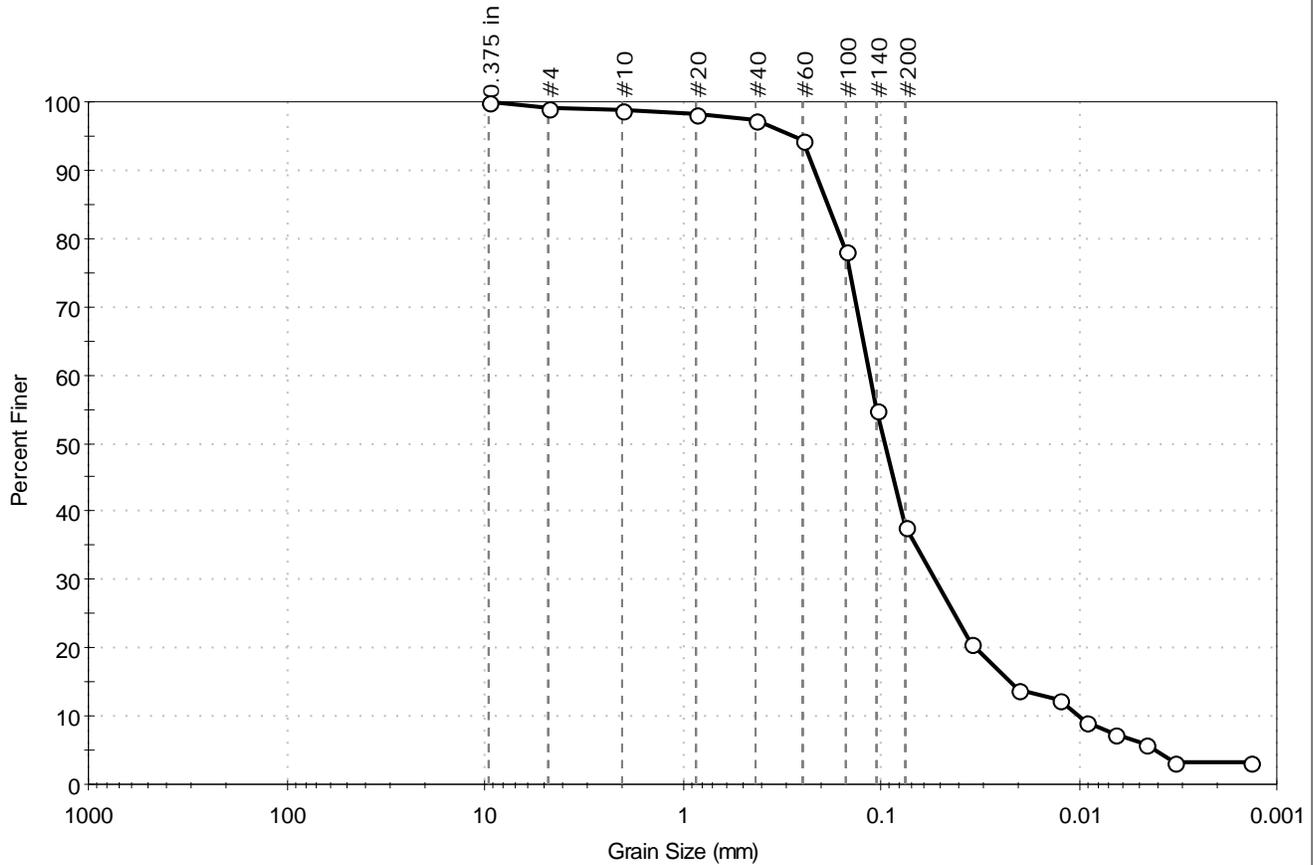
Classification	
ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor QEA, LLC	Project No:	GTX-315751
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Sample Type:	bag
Boring ID:	---	Tested By:	ckg
Sample ID:	LCW-18-25-26.5	Test Date:	07/26/22
Depth:	---	Checked By:	ank
Test Comment:	---	Test Id:	676695
Visual Description:	Moist, olive brown silty sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	1.0	61.3	37.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	99		
#20	0.85	98		
#40	0.42	97		
#60	0.25	94		
#100	0.15	78		
#140	0.11	55		
#200	0.075	38		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0347	21		
---	0.0200	14		
---	0.0126	12		
---	0.0091	9		
---	0.0065	7		
---	0.0046	6		
---	0.0033	3		
---	0.0014	3		

<u>Coefficients</u>	
D <sub>85</sub> = 0.1863 mm	D <sub>30</sub> = 0.0531 mm
D <sub>60</sub> = 0.1145 mm	D <sub>15</sub> = 0.0218 mm
D <sub>50</sub> = 0.0962 mm	D <sub>10</sub> = 0.0100 mm
C <sub>u</sub> = 11.450	C <sub>c</sub> = 2.463

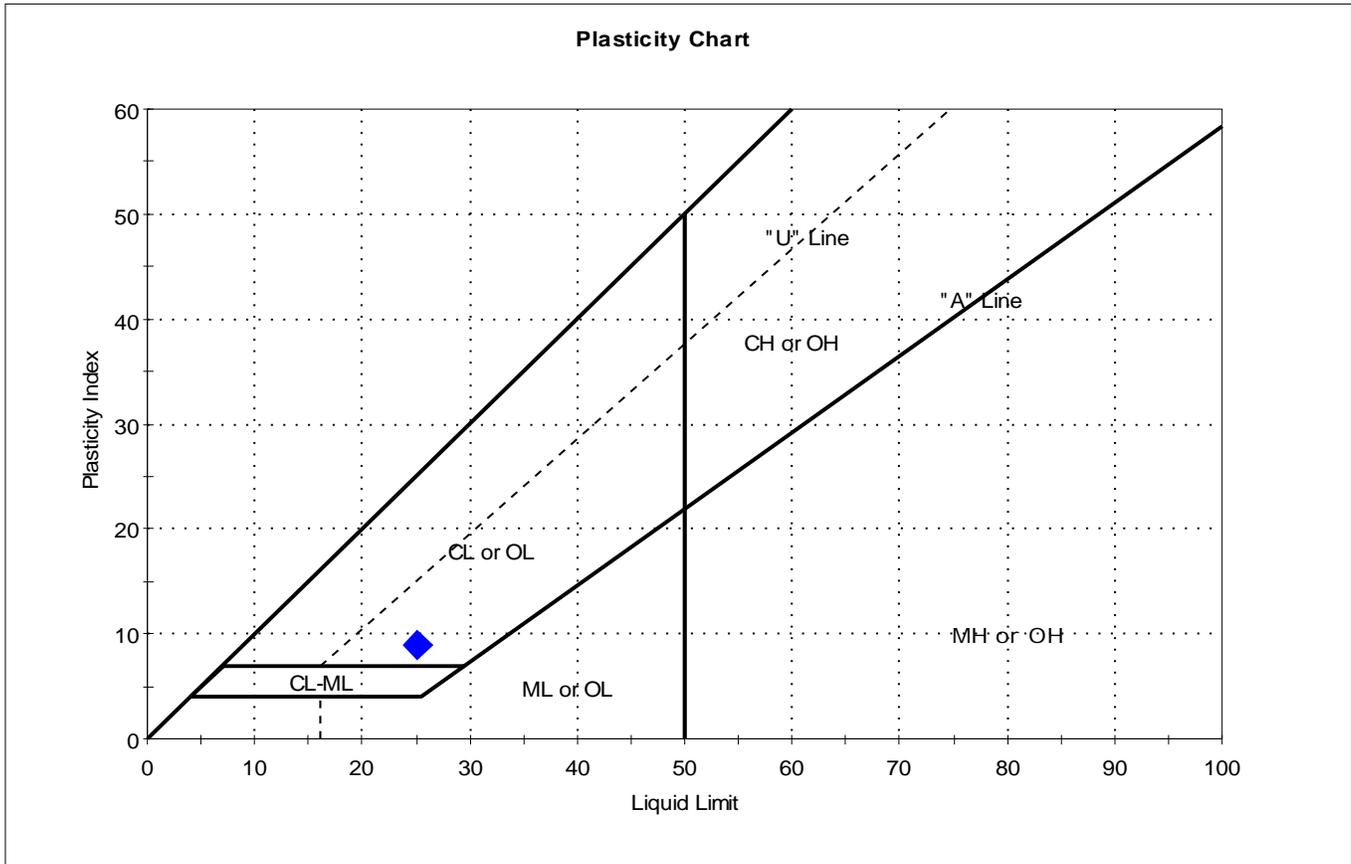
<u>Classification</u>	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve



Client:	Anchor OEA, LLC		Project No:	GTX-315751			
Project:	Los Cerritos Wetland Restoration						
Location:	Seal Beach, CA		Sample Type:	bag	Tested By:	cam	
Boring ID:	---	Sample ID:	LCW-05-0-4.5-6	Test Date:	07/22/22	Checked By:	ank
Depth:	---	Test Id:	676680				
Test Comment:	---						
Visual Description:	Moist, dark yellowish brown clay						
Sample Comment:	---						

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-05-0-4.5-6	---	---	17	25	16	9	0.1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

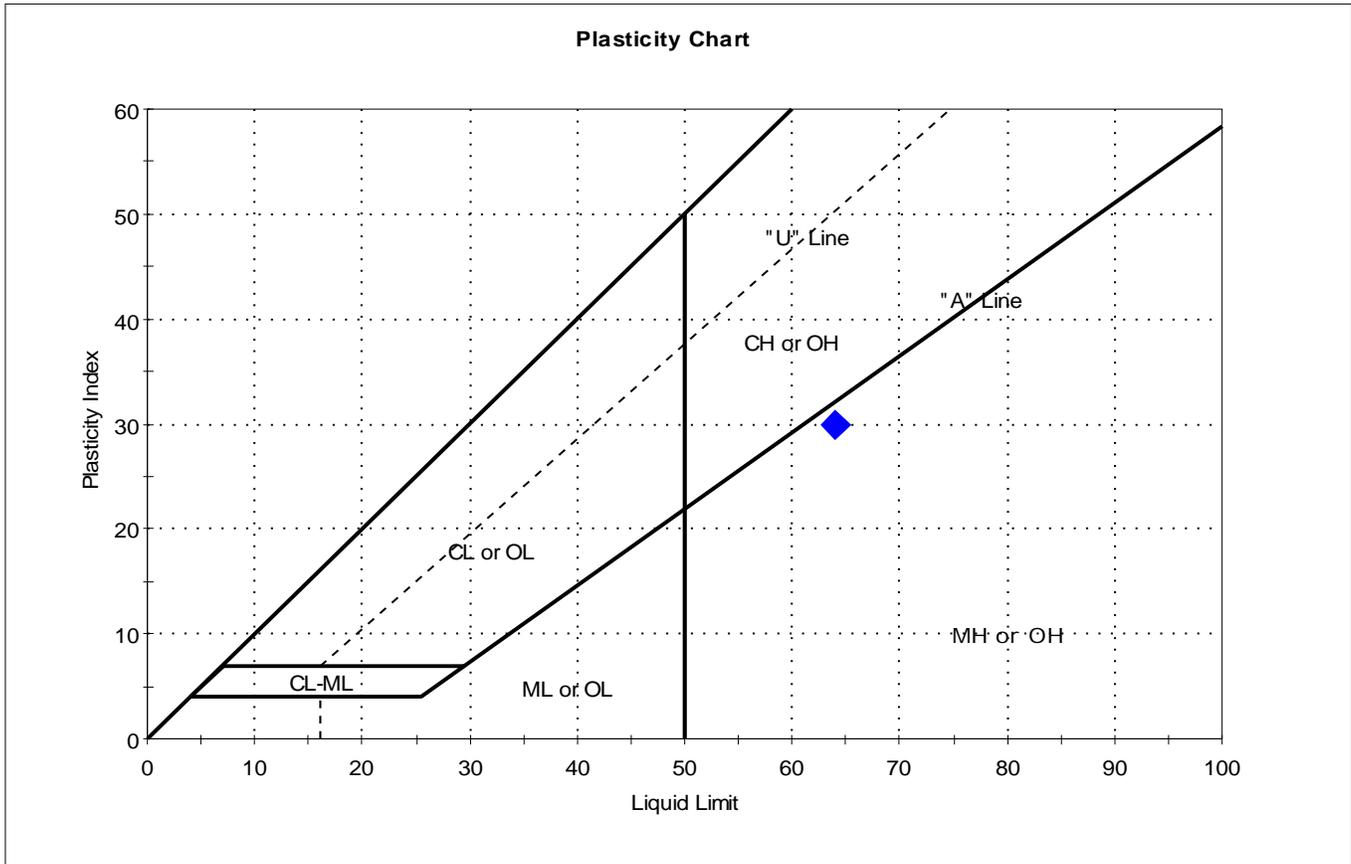
Dilatancy: SLOW

Toughness: LOW



Client:	Anchor QEA, LLC		Project No:	GTX-315751			
Project:	Los Cerritos Wetland Restoration						
Location:	Seal Beach, CA		Sample Type:	bag	Tested By:	cam	
Boring ID:	---	Sample ID:	LCW-09-6-7.5	Test Date:	07/25/22	Checked By:	ank
Depth:	---	Test Id:	676681				
Test Comment:	---						
Visual Description:	Moist, gray silt						
Sample Comment:	---						

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-09-6-7.5	---	---	55	64	34	30	0.7	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

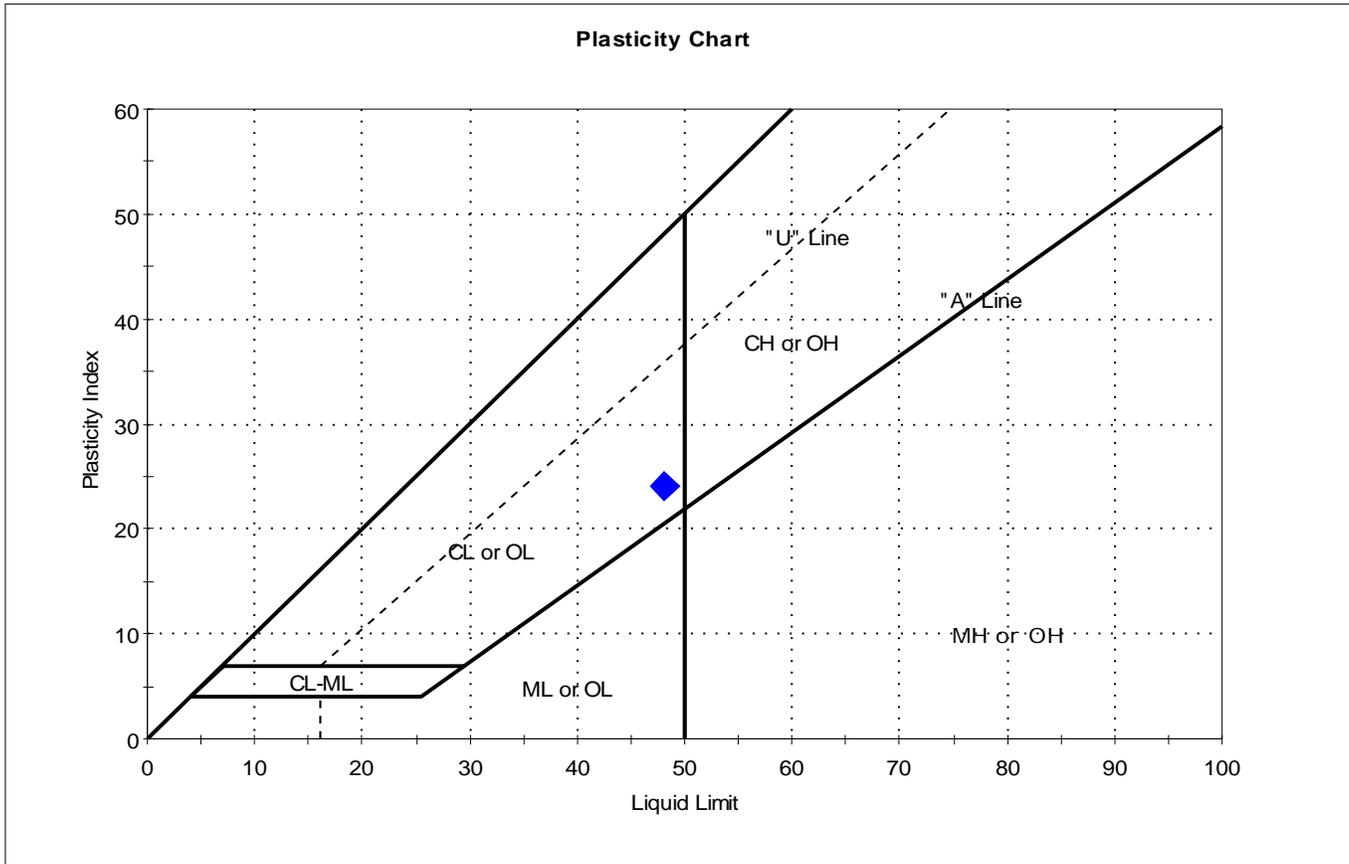
Dilatancy: SLOW

Toughness: LOW



Client:	Anchor OEA, LLC		Project No:	GTX-315751			
Project:	Los Cerritos Wetland Restoration						
Location:	Seal Beach, CA		Sample Type:	bag	Tested By:	cam	
Boring ID:	---	Sample ID:	LCW-11-4-6	Test Date:	07/25/22	Checked By:	ank
Depth:	---	Test Id:	676682				
Test Comment:	---						
Visual Description:	Moist, dark gray clay						
Sample Comment:	---						

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-11-4-6	---	---	38	48	24	24	0.6	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

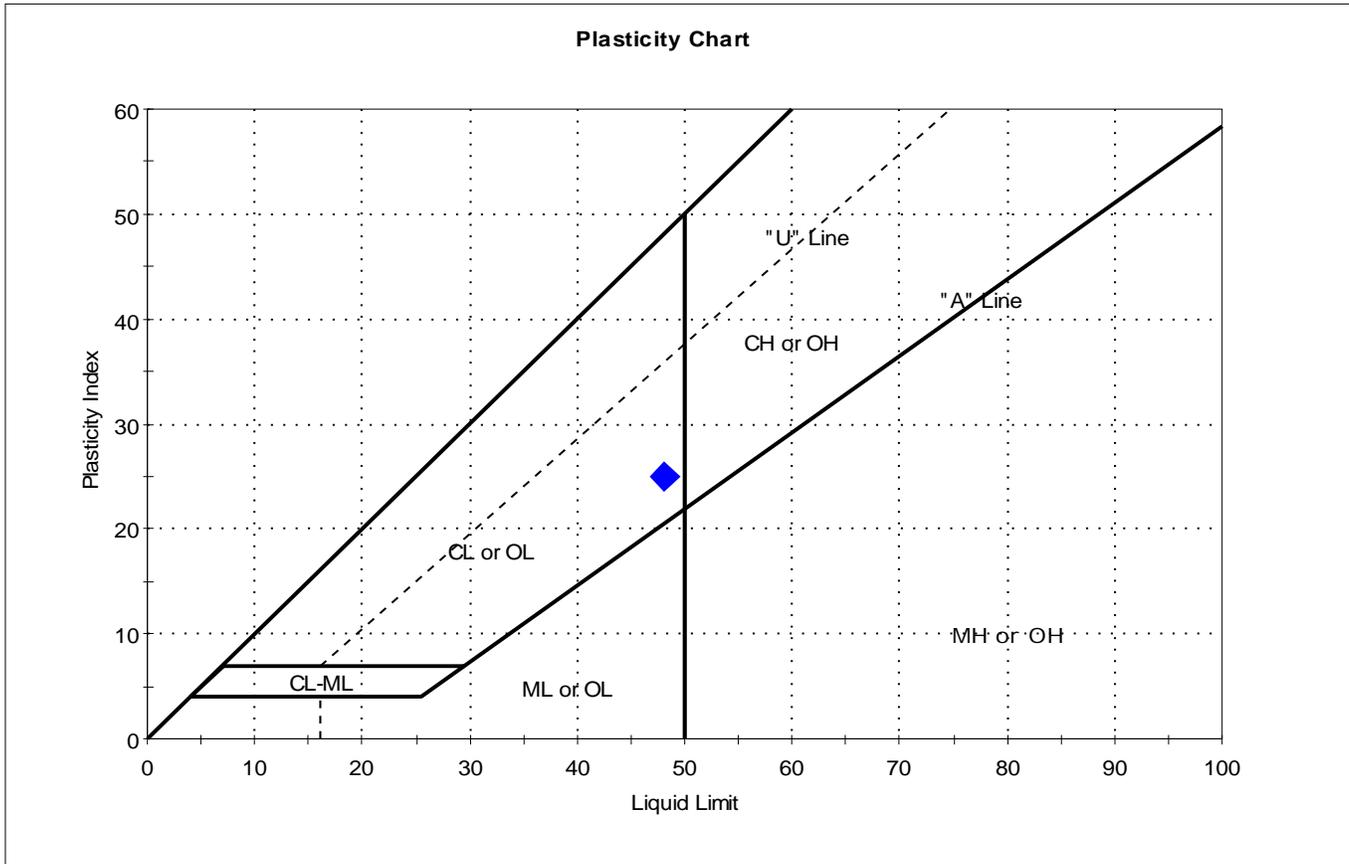
Dilatancy: SLOW

Toughness: LOW



Client:	Anchor OEA, LLC		Project No:	GTX-315751	
Project:	Los Cerritos Wetland Restoration				
Location:	Seal Beach, CA		Sample Type:	bag	
Boring ID:	---	Tested By:	cam		
Sample ID:	LCW-13-4.5-6	Test Date:	07/25/22	Checked By:	ank
Depth:	---	Test Id:	676683		
Test Comment:	---				
Visual Description:	Moist, dark grayish brown clay				
Sample Comment:	---				

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-13-4.5-6	---	---	41	48	23	25	0.7	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

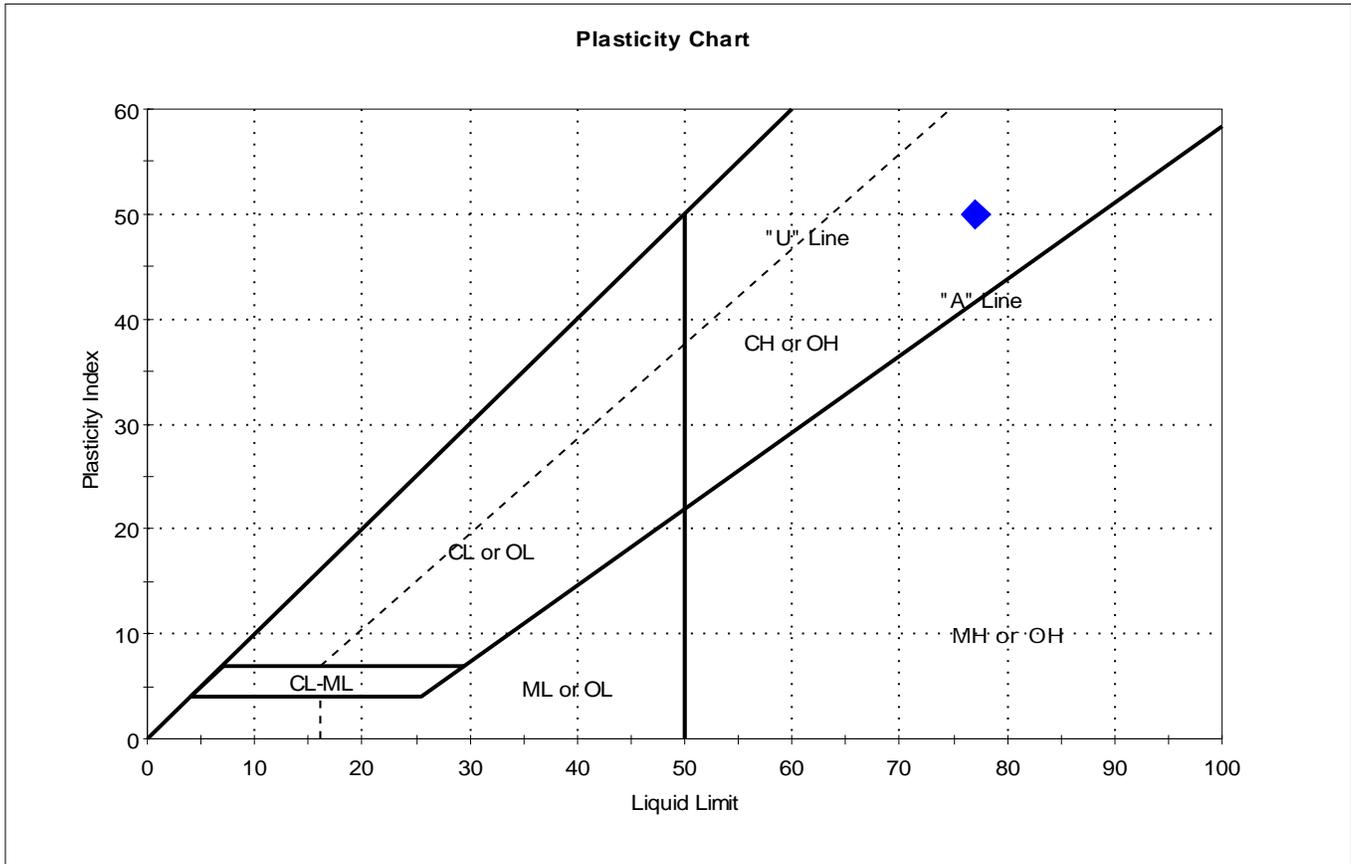
Dilatancy: SLOW

Toughness: LOW



Client:	Anchor QEA, LLC		Project No:	GTX-315751	
Project:	Los Cerritos Wetland Restoration				
Location:	Seal Beach, CA		Sample Type:	bag	
Boring ID:	---	Tested By:	cam		
Sample ID:	LCW-17-10-11.5	Test Date:	07/25/22	Checked By:	ank
Depth:	---	Test Id:	676684		
Test Comment:	---				
Visual Description:	Moist, dark gray clay				
Sample Comment:	---				

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-17-10-11.5	---	---	36	77	27	50	0.2	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

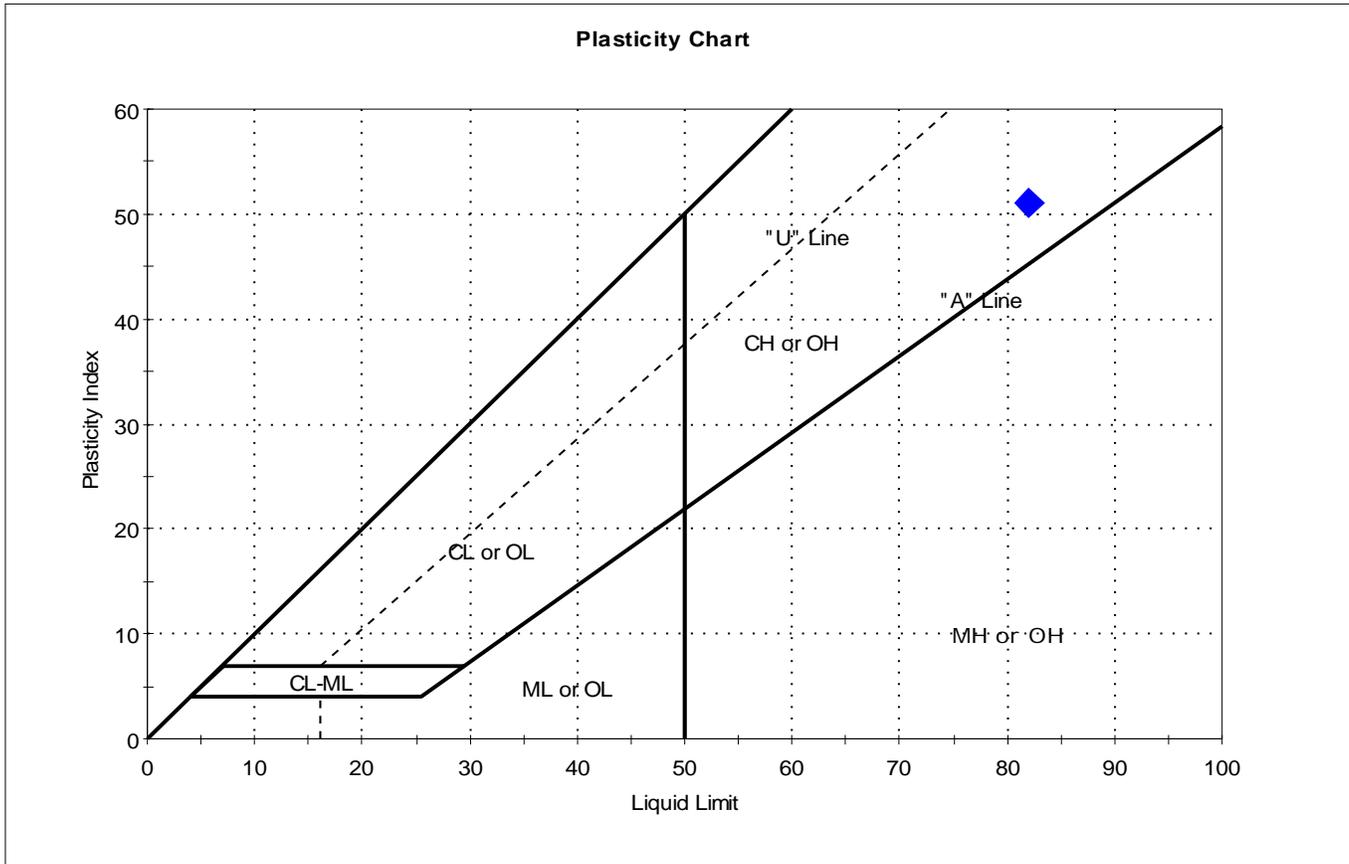
Dilatancy: SLOW

Toughness: LOW



Client:	Anchor QEA, LLC		Project No:	GTX-315751			
Project:	Los Cerritos Wetland Restoration						
Location:	Seal Beach, CA		Sample Type:	bag	Tested By:	cam	
Boring ID:	---	Sample ID:	LCW-18-10-11.5	Test Date:	07/25/22	Checked By:	ank
Depth:	---	Test Id:	676685				
Test Comment:	---						
Visual Description:	Moist, gray clay						
Sample Comment:	---						

## Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-18-10-11.5	---	---	56	82	31	51	0.5	

Sample Prepared using the WET method

Dry Strength: n/a

Dilatancy: SLOW

Toughness: LOW



Client:	Anchor QEA, LLC		
Project:	Los Cerritos Wetland Restoration		
Location:	Seal Beach, CA	Project No:	GTX-315751
Boring ID:	---	Sample Type:	bag
Sample ID:	LCW-18-15.4-16.3	Test Date:	07/22/22
Depth :	---	Test Id:	676686
Test Comment:	---		
Visual Description:	Moist, dark gray silty sand		
Sample Comment:	---		

## Atterberg Limits - ASTM D4318

**Sample Determined to be non-plastic**

Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	LCW-18-15.4-16.3	---	---	19	n/a	n/a	n/a	n/a	

Dry Strength: LOW  
Dilatancy: RAPID  
Toughness: n/a  
The sample was determined to be Non-Plastic



# CHAIN OF CUSTODY

GeoTesting Express, Inc. 125 Nagog Park  
 Acton, MA 01720  
 800-434-1062 Toll Free

Sales Order No.:  
 GTX No.:

978-635-0424 Phone  
 978-635-0266 Fax

Company Name: Anchor QEA			Analysis							
Address:			Sample Type	Container Type	Particle Size (D4464)					
Contact: Chris Osuch e-mail: cosuch@anchorqea.com Phone Number: 949-334-9632 Fax Number:			1. Soil	1. Bucket						
Project Name: Los Cerritos Wetland Restoration Project Number: 210090-01.01 Project Location: Seal Beach, CA			2. Geosynthetic	2. Bag						
			3. Rock	3. Jar						
			4. Concrete	4. Tube						
			5. Other	5. Roll						
Sample Identification	Sampling		Sample Type	Container Type	Particle Size (D4464)					Comments
	Date	Time								
LCW-01/02-061522	6/15/2022	13:00	Soil	Bag	x					
LCW-03/04-061522	6/15/2022	13:00	Soil	Bag	x					
LCW-5-061722	6/17/2022	17:10	Soil	Bag	x					
LCW-07-061722	6/17/2022	11:00	Soil -	Bag	x					
LCW-08/09-061722	6/17/2022	17:15	Soil	Bag	x					
LCW-10/11-061722	6/17/2022	10:00	Soil	Bag	x					
LCW-12/13-061722	6/17/2022	17:15	Soil	Bag	x					
Relinquished By: <i>Makenna Brown</i>			Date: <i>6/30/22</i>	Received By: <i>[Signature]</i>	Date: <i>7/5/22</i>	Turn-Around Time Requested:				
			Time: <i>17:00</i>		Time: <i>9:30</i>	No. of Business Days: _____				
Relinquished By:			Date:	Received By:	Date:	Special Instructions:				
			Time:		Time:					
SHIPPED VIA:			Date:	Received By:	Date:					
			Time:		Time:					



## CHAIN OF CUSTODY

GeoTesting Express, Inc. 125 Nagog Park  
Acton, MA 01720  
800-434-1062 Toll Free

<b>Sales Order No.:</b> _____	978-635-0424 Phone
<b>GTX No.:</b> _____	978-635-0266 Fax

<b>Company Name:</b> Anchor QEA			<b>Analysis</b>												
<b>Address:</b>			<b>Sample Type</b> 1. Soil 2. Geosynthetic 3. Rock 4. Concrete 5. Other		<b>Container Type</b> 1. Bucket 2. Bag 3. Jar 4. Tube 5. Roll		Moisture Content ASTM D2216	Atterberg Limits ASTM D4318	Particle Size (sieve & hydrometer) ASTM D422	Specific Gravity ASTM D854	Bulk Density ASTM D7263	Direct Shear ASTM D3080	Consolidation ASTM D2435	Comments	
<b>Contact:</b> Chris Osuch e-mail: cosuch@anchorqea.com Phone Number: 949-334-9632 Fax Number: _____															
<b>Project Name:</b> Los Cerritos Wetland Restoration <b>Project Number:</b> 210090-01.01 <b>Project Location:</b> Seal Beach, CA															
<b>Sample Identification</b>		<b>Sampling</b>		<b>Sample Type</b>		<b>Container Type</b>									
		Date	Time												
LCW-05-0-1.5		6/17/2022	17:15	Soil	Bag	X		X							
LCW-05-0-4.5-6		6/17/2022	17:38	Soil	Bag	X	X								
LCW-09-0-1.5		6/17/2022	15:15	Soil	Bag	X		X							
LCW-09-6-7.5		6/17/2022	13:40	Soil	Bag	X	X								
LCW-11-0-2		6/16/2022	12:45	Soil	Bag	X		X							
LCW-11-4-6		6/16/2022	13:10	Soil	Bag	X	X								
LCW-13-0-1.5		6/17/2022	13:30	Soil	Bag	X		X							
LCW-13-4.5-6		6/17/2022	13:50	Soil	Bag	X	X								
Relinquished By: <i>Makena Brown</i>		Date: <i>6/20/22</i>		Received By: <i>Shawn Reed</i>						Date: <i>7/5/22</i>		Turn-Around Time Requested:			
		Time: <i>17:00</i>								Time: <i>9:30</i>					
Relinquished By:		Date:		Received By:						Date:		No. of Business Days: _____			
		Time:								Time:					
Relinquished By:		Date:		Received By:						Date:		Special Instructions:			
		Time:								Time:					
SHIPPED VIA:															



## CHAIN OF CUSTODY

GeoTesting Express, Inc. 125 Nagog Park  
Acton, MA 01720  
800-434-1062 Toll Free

<b>Sales Order No.:</b>	978-635-0424 Phone
<b>GTX No.:</b>	978-635-0266 Fax

<b>Company Name:</b> Anchor QEA			<b>Analysis</b>										
<b>Address:</b>			<b>Sample Type</b>		<b>Container Type</b>								
<b>Contact:</b> Chris Osuch e-mail: cosuch@anchorqea.com Phone Number: 949-334-9632 Fax Number:			1. Soil	1. Bucket	Moisture Content ASTM D2216	Atterberg Limits ASTM D4318	Particle Size (sieve & hydrometer) ASTM D422	Specific Gravity ASTM D854	Bulk Density ASTM D7263	Direct Shear ASTM D3080	Consolidation ASTM D2435		
<b>Project Name:</b> Los Cerritos Wetland Restoration <b>Project Number:</b> 210090-01.01 <b>Project Location:</b> Seal Beach, CA			2. Geosynthetic	2. Bag									
			3. Rock	3. Jar									
			4. Concrete	4. Tube									
			5. Other	5. Roll									
<b>Sample Identification</b>	<b>Sampling</b>		<b>Sample Type</b>	<b>Container Type</b>								<b>Comments</b>	
	<b>Date</b>	<b>Time</b>											
LCW-17-0-1.5	6/17/2022	14:00	Soil	Bag	<b>X</b>		<b>X</b>					sand	
LCW-17-5-6.5	6/17/2022	14:20	Soil	Bag	<b>X</b>							sand	
LCW-17-10-11.5	6/17/2022	14:30	Soil	Bag	<b>X</b>	<b>X</b>						clay	
LCW-17-15-16.5	6/17/2022	14:59	Soil	Bag	<b>X</b>							clay (more volume than above)	
LCW-17-20-21.5	6/17/2022	15:25	Soil	Bag	<b>X</b>		<b>X</b>						
			Soil	Bag									
			Soil	Bag									
			Soil	Bag									
<b>Relinquished By:</b> <i>Materina Brown</i>			<b>Date:</b> <i>6/30/22</i>		<b>Received By:</b> <i>Shawn Punt</i>						<b>Date:</b> <i>7/5/22</i>		<b>Turn-Around Time Requested:</b>
			<b>Time:</b> <i>17:00</i>								<b>Time:</b> <i>4:30</i>		
<b>Relinquished By:</b>			<b>Date:</b>		<b>Received By:</b>						<b>Date:</b>		<b>No. of Business Days:</b> _____
			<b>Time:</b>								<b>Time:</b>		
<b>Relinquished By:</b>			<b>Date:</b>		<b>Received By:</b>						<b>Date:</b>		<b>Special Instructions:</b>
			<b>Time:</b>								<b>Time:</b>		
<b>SHIPPED VIA:</b>													



## CHAIN OF CUSTODY

GeoTesting Express, Inc. 125 Nagog Park  
Acton, MA 01720  
800-434-1062 Toll Free

Sales Order No.: \_\_\_\_\_ 978-635-0424 Phone  
GTX No.: \_\_\_\_\_ 978-635-0266 Fax

<b>Company Name:</b> Anchor QEA			<b>Analysis</b>										
<b>Address:</b>			Sample Type	Container Type	Moisture Content ASTM D2216	Atterberg Limits ASTM D4318	Particle Size (sieve & hydrometer) ASTM D422	Specific Gravity ASTM D854	Bulk Density ASTM D7263	Direct Shear ASTM D3080	Consolidation ASTM D2435		
<b>Contact:</b> Chris Osuch e-mail: cosuch@anchorqea.com <b>Phone Number:</b> 949-334-9632 <b>Fax Number:</b>			1. Soil	1. Bucket									2. Geosynthetic
<b>Project Name:</b> Los Cerritos Wetland Restoration <b>Project Number:</b> 210090-01.01 <b>Project Location:</b> Seal Beach, CA			Sample Type	Container Type								Comments	
<b>Sample Identification</b>	<b>Sampling</b>												
	Date	Time											
LCW-18-0-1.5 -	6/17/2022	8:40	Soil	Bag	<b>X</b>							sand	
LCW-18-5-6.5	6/17/2022	8:55	Soil	Bag	<b>X</b>		<b>X</b>					sand	
LCW-18-10-11.5	6/17/2022	9:10	Soil	Bag	<b>X</b>	<b>X</b>						clay	
LCW-18-15.4-16.3	6/17/2022	9:35	Soil	Bag	<b>X</b>	<b>X</b>						sandy silt	
LCW-18-20-21.5	6/17/2022	9:55	Soil	Bag	<b>X</b>		<b>X</b>					sand	
LCW-18-25-26.5	6/17/2022	10:10	Soil	Bag	<b>X</b>		<b>X</b>					sand	
<b>Relinquished By:</b> Makenna Brown <i>Makenna Brown</i>			<b>Date:</b> 6/30/22		<b>Received By:</b> <i>Shawn Brown</i>						<b>Date:</b> 7/5/22		<b>Turn-Around Time Requested:</b>
			<b>Time:</b> 17:00								<b>Time:</b> 9:30		<b>No. of Business Days:</b> _____
<b>Relinquished By:</b>			<b>Date:</b>		<b>Received By:</b>						<b>Date:</b>		<b>Special Instructions:</b>
			<b>Time:</b>								<b>Time:</b>		
<b>Relinquished By:</b>			<b>Date:</b>		<b>Received By:</b>						<b>Date:</b>		
			<b>Time:</b>								<b>Time:</b>		
<b>SHIPPED VIA:</b>													

## WARRANTY and LIABILITY

GeoTesting Express (GTX) warrants that all tests it performs are run in general accordance with the specified test procedures and accepted industry practice. GTX will correct or repeat any test that does not comply with this warranty. GTX has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

GTX may report engineering parameters that require us to interpret the test data. Such parameters are determined using accepted engineering procedures. However, GTX does not warrant that these parameters accurately reflect the true engineering properties of the *in situ* material. Responsibility for interpretation and use of the test data and these parameters for engineering and/or construction purposes rests solely with the user and not with GTX or any of its employees.

GTX's liability will be limited to correcting or repeating a test which fails our warranty. GTX's liability for damages to the Purchaser of testing services for any cause whatsoever shall be limited to the amount GTX received for the testing services. GTX will not be liable for any damages, or for any lost benefits or other consequential damages resulting from the use of these test results, even if GTX has been advised of the possibility of such damages. GTX will not be responsible for any liability of the Purchaser to any third party.

### Commonly Used Symbols

A	pore pressure parameter for $\Delta\sigma_1 - \Delta\sigma_3$	$S_r$	Post cyclic undrained shear strength
B	pore pressure parameter for $\Delta\sigma_3$	T	temperature
CAI	CERCHAR Abrasiveness Index	t	time
CIU	isotropically consolidated undrained triaxial shear test	U, UC	unconfined compression test
CR	compression ratio for one dimensional consolidation	UU, Q	unconsolidated undrained triaxial test
CSR	cyclic stress ratio	$u_a$	pore gas pressure
$C_c$	coefficient of curvature, $(D_{30})^2 / (D_{10} \times D_{60})$	$u_e$	excess pore water pressure
$C_u$	coefficient of uniformity, $D_{60}/D_{10}$	u, $u_w$	pore water pressure
$C_c$	compression index for one dimensional consolidation	V	total volume
$C_a$	coefficient of secondary compression	$V_g$	volume of gas
$c_v$	coefficient of consolidation	$V_s$	volume of solids
c	cohesion intercept for total stresses	$V_s$	shear wave velocity
$c'$	cohesion intercept for effective stresses	$V_v$	volume of voids
D	diameter of specimen	$V_w$	volume of water
D	damping ratio	$V_o$	initial volume
$D_{10}$	diameter at which 10% of soil is finer	v	velocity
$D_{15}$	diameter at which 15% of soil is finer	W	total weight
$D_{30}$	diameter at which 30% of soil is finer	$W_s$	weight of solids
$D_{50}$	diameter at which 50% of soil is finer	$W_w$	weight of water
$D_{60}$	diameter at which 60% of soil is finer	w	water content
$D_{85}$	diameter at which 85% of soil is finer	$w_c$	water content at consolidation
$d_{50}$	displacement for 50% consolidation	$w_f$	final water content
$d_{90}$	displacement for 90% consolidation	$w_l$	liquid limit
$d_{100}$	displacement for 100% consolidation	$w_n$	natural water content
E	Young's modulus	$w_p$	plastic limit
e	void ratio	$w_s$	shrinkage limit
$e_c$	void ratio after consolidation	$w_o, w_i$	initial water content
$e_o$	initial void ratio	$\alpha$	slope of $q_f$ versus $p_f$
G	shear modulus	$\alpha'$	slope of $q_f$ versus $p_f'$
$G_s$	specific gravity of soil particles	$\gamma_t$	total unit weight
H	height of specimen	$\gamma_d$	dry unit weight
$H_R$	Rebound Hardness number	$\gamma_s$	unit weight of solids
i	gradient	$\gamma_w$	unit weight of water
$I_S$	Uncorrected point load strength	$\epsilon$	strain
$I_{S(50)}$	Size corrected point load strength index	$\epsilon_{vol}$	volume strain
$H_A$	Modified Taber Abrasion	$\epsilon_h, \epsilon_v$	horizontal strain, vertical strain
$H_T$	Total hardness	$\mu$	Poisson's ratio, also viscosity
$K_o$	lateral stress ratio for one dimensional strain	$\sigma$	normal stress
k	permeability	$\sigma'$	effective normal stress
LI	Liquidity Index	$\sigma_c, \sigma'_c$	consolidation stress in isotropic stress system
$m_v$	coefficient of volume change	$\sigma_h, \sigma'_h$	horizontal normal stress
n	porosity	$\sigma_v, \sigma'_v$	vertical normal stress
PI	plasticity index	$\sigma'_{vc}$	Effective vertical consolidation stress
$P_c$	preconsolidation pressure	$\sigma_1$	major principal stress
p	$(\sigma_1 + \sigma_3) / 2, (\sigma_v + \sigma_h) / 2$	$\sigma_2$	intermediate principal stress
$p'$	$(\sigma'_1 + \sigma'_3) / 2, (\sigma'_v + \sigma'_h) / 2$	$\sigma_3$	minor principal stress
$p'_c$	$p'$ at consolidation	$\tau$	shear stress
Q	quantity of flow	$\phi$	friction angle based on total stresses
q	$(\sigma_1 - \sigma_3) / 2$	$\phi'$	friction angle based on effective stresses
$q_f$	q at failure	$\phi'_r$	residual friction angle
$q_o, q_i$	initial q	$\phi_{ult}$	$\phi$ for ultimate strength
$q_c$	q at consolidation		