Prepared for

CG Roxane, LLC
1210 South Highway 395
Olancha, California 93549

REVISED PHASE 3 SITE GROUNDWATER INVESTIGATION REPORT

Olancha Spring Water Bottling Facility
1210 South U.S. Highway 395
Olancha, California

Prepared by

Geosyntec consultants

engineers | scientists | innovators

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February 28, 2017 revised

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Crystal Geyser Roxane

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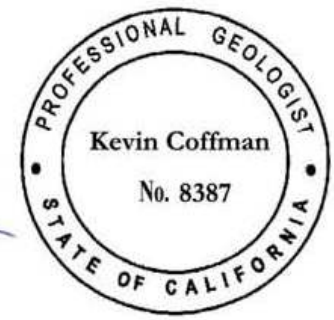

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

EXECUTIVE SUMMARY

Geosyntec Consultants, Inc. (Geosyntec), on behalf of Crystal Geyser Roxane (CGR) has completed this *Revised Phase 3 Site Groundwater Investigation Report* (Revised Phase 3 Report) for the CGR Spring Water Bottling Facility (Site) located at 1210 South U.S. Highway 395, near Olancha, California. The Phase 3 Site investigation was conducted in general accordance with the Lahontan Regional Water Quality Control Board's (RWQCB's) Amended Investigative Order R6V-2014-0063A1. This Revised Phase 3 Report was provided to respond to comments 1, 3, 4, and 14 of the RWQCB's letter dated December 30, 2016.

The Phase 3 Site investigation was conducted to further evaluate the soil and groundwater conditions in the areas around the former Arsenic Pond, the East Pond, and the Fire Pond. Additionally, the investigation was completed to evaluate groundwater gradient and flow patterns in the upper-most shallow groundwater aquifer. During the Phase 3 Site investigation, soil sampling was conducted near the Fire Pond, groundwater grab samples were collected near the former Arsenic Pond, six additional groundwater monitoring wells were installed, and the third quarter 2016 monitoring event was conducted.

Results of soil samples collected near the Fire Pond indicate concentrations of arsenic and molybdenum are representative of naturally occurring regional background levels that are higher than the median California background levels. The distribution and concentrations of the detected metals in soil and groundwater indicate that there have been no significant impacts due to waste water discharges near the Fire Pond.

The RWQCB required soil samples near the Fire Pond due to an unsubstantiated third-party report that CGR allegedly disposed of arsenic filter media in the area. Surface soil samples were collected in an area northeast of the southern bottling facility as a split sample with the RWQCB to determine whether uncontrolled releases of arsenic containing materials historically occurred in this area. There was no evidence of a release found based on the soil sampling.

Soil vapor sampling was conducted near the valve distribution box. Low detections of several volatile organic compounds (VOCs) were detected; however, all soil vapor sample results were consistently lower than the most conservative screening levels for residential vapor intrusion concerns. Based on the soil vapor sample results and the soil and groundwater sample results, there has not been a significant release of VOCs.

The groundwater gradient in the area of the former Arsenic Pond and East Pond was calculated to be towards the northeast at a magnitude of approximately 0.009 feet/ft. A significant upward groundwater gradient is observed in the vicinity of the former Arsenic Pond. The groundwater gradient in the area of the Fire Pond is towards the northeast at a magnitude of approximately 0.005 feet/ft.

The groundwater grab results from the Phase 3 investigation indicate that elevated dissolved arsenic concentrations are present at the Site. The results suggest that naturally occurring arsenic concentrations associated with the fine-grained lacustrine (lake bed) deposits are highly elevated. Elevated concentrations of arsenic are also detected near the former Arsenic pond. Based on the naturally occurring arsenic concentrations in the Site vicinity (Cabin Bar Ranch and nearby Owens Dry Lake areas), any potential impacts from the former Arsenic Pond to shallow site groundwater appear to be within natural background concentrations. The basis for natural background concentrations of arsenic are presented in Geosyntec's *Technical Memorandum – Arsenic Distribution and Background Analysis at the CGR Facility in Olancha, CA*, (Geosyntec, 2016b). Gradient data and groundwater modeling indicate that groundwater near the former Arsenic Pond will migrate any high concentrations of arsenic to an area beneath the Owens Dry Lake where concentrations of arsenic are one to two orders of magnitude higher than concentrations found on Site. Groundwater originating at and near the former Arsenic Pond will not impact any water supply wells in the area and, based on current information, no known material harm to the environment or reasonably foreseeable beneficial uses for waters of the State have occurred.

1.0 INTRODUCTION, OBJECTIVES, AND REPORT ORGANIZATION

Geosyntec Consultants, Inc. (Geosyntec), on behalf of Crystal Geyser Roxane (CGR), is pleased to present the following *Revised Phase 3 Site Groundwater Investigation Report* (Revised Phase 3 Report) for the CGR Spring Water Bottling Facility (Site) located at 1210 South U.S. Highway 395, near Olancha, California.

The Phase 3 groundwater investigation was performed to address the requirements of the Lahontan Regional Water Quality Control Board (RWQCB) Investigative Order Number R6V-2014-0063 (Order) dated July 24, 2014 and an e-mail from Ms. Lisa Scoralle of the RWQCB dated October 26, 2015. The October 2015 e-mail presented comments on Geosyntec's Phase 2 Site Investigation (Geosyntec, 2015b) and requested additional investigation related to soil, soil vapor, and groundwater at and near the Facility.

The scope of work for the Phase 3 investigation was presented in the *Revised Additional Site Investigation Work Plan* (workplan) dated December 29, 2015 and revised July 13, 2016 (Geosyntec, 2016). The workplan was approved by the RWQCB in correspondence dated July 11, 2016. The original Phase 3 Site Groundwater Investigation Report was submitted on October 20, 2016. The RWQCB subsequently provided comments in a letter dated December 30, 2016. This Revised Phase 3 Report specifically addresses comments 1, 3, 4 and 14 of the December 30 letter. CGR will provide a separate letter responding to comments 2, 6, 8, 12, 15, 16, and 17. The remaining comments 5, 7, 9, 10, 11, and 13 do not require a formal response.

The scope and objectives of the work implemented were in general accordance with the approved workplan and included:

- Sample soil adjacent to the Fire Pond (B-01) to evaluate elevated concentrations detected during the Phase 2 Investigation;

- Collection of groundwater grab samples and installation of an upgradient monitoring well (MW-15) screened in the deeper portion of the shallow aquifer to evaluate vertical distribution of arsenic in groundwater in the vicinity of the former Arsenic Pond (AP);

- Install five additional groundwater monitoring wells (MW-10 through MW-14) to further characterize the shallow groundwater quality around the Fire Pond (FP), former Arsenic Pond, and East Pond (EP); and

- Continue routine groundwater monitoring including collection of groundwater samples from fifteen groundwater monitoring wells and soil vapor from one soil vapor probe.

In addition to the approved written scope of work, additional groundwater grab samples were collected from new monitoring well locations based on RWQCB correspondence in areas upgradient, cross-gradient, and downgradient to the former AP.

The Phase 3 Report has been organized as follows:

- Section 1. – *Introduction, Objectives, and Report Organization*.

- Section 2.0. –*General Site Information*. This section includes a general description of the site location, site topography and site features such as surface water, structures, and wells.

- Section 3.0 – *Previous Site Hydrogeologic Studies*. A summary of the previous investigations is presented.

- Section 4.0. – *Site Geology and Hydrogeology*. This section includes a brief description of the regional and Site geology and hydrogeology including regional watershed information.

- Section 5.0. – *Field Methodology*. Procedural information on drilling and well installation in addition to soil, soil vapor, and water sampling is presented.

- Section 6.0. – *Investigation Results*. This section presents the results of the drilling, groundwater monitoring well installation, groundwater level gauging, and soil, soil vapor, and groundwater sample analyses.

- Section 7.0. – *Data Evaluation and Conclusions*. A discussion of the Site hydrogeology, soil conditions, soil vapor conditions, and groundwater quality conditions is presented, including comparison of sample results to established screening levels and maximum contaminant levels (MCLs). This section also provides conclusions regarding potential impacts based on the investigative data generated to date.

- Section 8.0. –*Recommendations*. This section provides recommendations for additional Site monitoring work.

- Section 9.0. – *References*

2.0 GENERAL SITE INFORMATION

The Site is an irregularly-shaped property that consists of approximately 170 acres adjacent to Highway 395 approximately 3 miles north of Olancha, California (**Figure 1**). CGR operates a spring water bottling facility using groundwater production wells for bottled spring water supply and for domestic and industrial purposes. The facility consists of two large bottling-production and warehouse buildings, CGR North and CGR South, containing a total of six main bottling production lines. A full description of the bottling facility waste discharge systems and processes was submitted in the *Facility Waste Generation and Discharge Systems Report* (CGR, 2014). The facility pumps groundwater from production wells located on the property for spring water bottling and domestic/industrial uses.

Regionally, the Site is located in the southern portion of the Owens Valley. Owens Lake (dry lake bed) is located east of the Site, and the base of the Sierra Nevada Mountains is located 1 mile west of the Site. Highway 395, which runs north-south, crosses the western portion of the Site (**Figure 1**). The Los Angeles Aqueduct is located approximately ½-mile west of the Site.

In 2010, CGR purchased the Cabin Bar Ranch property located directly to the north of the Site. The town of Cartago is located to the north of the Cabin Bar Ranch. The Cartago Mutual Water Company (CMW) owns two wells, CMW-1 and CMW-2, located approximately 3,500 feet north of the northern Site boundary in the town of Cartago. CMW-1 was installed to a depth of approximately to 250 or 325 feet. CMW reports that CMW-2 is currently used to supply water to approximately 43 residences in the town of Cartago.

There are numerous other private domestic wells located in the town of Cartago. Based on a survey conducted by CGR in which available County files were reviewed (by permission of the individual residences) and a private residence survey was completed, it is estimated that there are currently 14 active private wells in Cartago. The pumping in the CMW wells and the 14 active private wells are the only known significant groundwater withdrawals in the area surrounding the Site. These wells are all located a minimum of approximately 3,500 feet north of the Site. A summary of CGR production wells and observation wells for the Site and municipal/private wells in the surrounding area were presented in Geosyntec's *Phase 2 Site Groundwater Investigation Report*, dated August 14, 2015 (Geosyntec, 2015b).

3.0 PREVIOUS SITE HYDROGEOLOGIC STUDIES

There have been numerous previous hydrogeologic Site studies relating to the CGR spring water bottling operations. These hydrogeologic studies and associated reports were listed in the Phase 2 Report (Geosyntec, 2015b). More recently, several workplans and investigation reports were prepared in response to orders by the RWQCB. These work plans and reports were listed in the Phase 3 workplan (Geosyntec, 2016).

To date, there have been three phases of site investigation in response to RWQCB requirements. The Phase 1 field investigation as documented in the *Phase 1 Site Groundwater Investigation Report*, dated February 16, 2015 (Geosyntec, 2015a), was completed as a screening evaluation to preliminarily evaluate the groundwater conditions in the areas around the former AP, the EP, and the FP, as well as near the cooling tower on the north side of the northern site bottling facility. A total of ten grab groundwater samples were collected to gather screening level data in order to better evaluate groundwater quality conditions and identify appropriate locations for groundwater monitoring wells. Additionally, production waste water samples were collected from both the northern and southern bottling plants and at water discharge locations of the former AP, the EP, and the FP for characterization and comparison to groundwater quality. The results of the Phase 1 investigation indicated that the primary constituents of concern in groundwater in the investigation areas are metals. Of the metals detected, the primary metal of concern exceeding its corresponding Maximum Contaminant Level (MCLs) was arsenic. Additionally, elevated concentrations of sulfate and total dissolved solids (TDS) were also detected at concentrations exceeding their secondary MCLs in borings adjacent to the former AP. Based on the data collected during the Phase 1 investigation, installation of groundwater monitoring wells was recommended for the areas surrounding the former AP, the EP, and the FP to verify the Phase 1 screening data.

The Phase 2 field investigation was conducted in June and July 2015 to further evaluate the soil, soil vapor, and groundwater conditions in the areas around the former AP, the EP, and the FP. The monitoring wells and soil vapor probe sampling locations were selected based on data obtained from the Phase 1 investigation. Additionally, quarterly groundwater monitoring was begun in 2015. During the Phase 2 investigation, a total of nine groundwater monitoring wells and one temporary soil vapor probe were installed and soil, soil vapor, and groundwater samples were collected and analyzed. Findings from the Phase 2 investigation include the following:

- The groundwater gradient in the area of the EP and former AP was calculated to be 0.006 to 0.007 ft/foot towards the northeast.

- Of the metals detected in soil, only detections of arsenic and molybdenum exceeded the California median background for soil concentrations (UCR/DTSC, 1996). Arsenic exceeded the median background concentration in soil samples collected across the site; however, the potential for higher naturally occurring arsenic in site soil are discussed in Section 4. Molybdenum exceeded the medium background concentration in one sample collected from boring MW-01. Geosyntec concluded that the distribution and concentrations of the detected metals did not indicate a significant release to soil due to waste water discharges at the Site. However, the RWQCB, in their e-mail dated October 26, 2015, opined that anomalously high metal concentrations were detected in a soil sample collected near the Fire Pond relative to other soil samples collected at the site.

- Soil vapor sample results from probe SV-01 located adjacent to the former AP were lower than conservative residential screening levels used to assess vapor intrusion potential.

- The groundwater sample analytical results did not contain detections of VOCs or SVOCs indicating there are no significant VOC or SVOC impacts to groundwater due to waste water discharges at the site.

- Concentrations of metals in groundwater, in particular, antimony and arsenic were detected at concentrations exceeding their MCLs of 6 and 10 micrograms per liter (µg/L), respectively. The elevated occurrences of antimony and arsenic, as documented in quarterly groundwater sampling events, were primarily located in wells located adjacent and downgradient of the former AP (wells MW-04, MW-05, and MW-09) and in an area of lower quality groundwater toward Owens Dry Lake.

- Elevated concentrations of sulfate and TDS were also detected at concentrations exceeding their upper secondary MCLs in monitoring wells located adjacent to the former AP (MW-04, MW-05, and MW-09). Chloride was also detected above the secondary MCL in MW-06.

Groundwater monitoring has occurred on a quarterly basis since the third quarter of 2015. The documented groundwater gradient is consistently towards the northeast (Owens Dry Lake) and groundwater elevations fluctuate seasonally, with decreases observed during the second and third annual quarters and increases observed during the first and fourth annual quarters. In general, arsenic concentrations in the Site monitoring wells are stable or decreasing and other detected compounds are generally similar between monitoring events.

4.0 SITE GEOLOGY AND HYDROGEOLOGY

4.1 Regional Geology

The Site is located in the southern portion of the Owens Valley which has a length of 150 miles and width of generally less than 8 miles. The Owens Valley is the westernmost valley of the Basin Range Province and is formed by the Sierra Nevada Mountains to the west and the White/Inyo Mountains to the east. The Sierra Nevada Mountains are generally composed of Mesozoic age igneous rocks of granodiorite-granite composition whereas the White/Inyo Mountains, to the east, consist of Pre-Cambrian to Triassic sedimentary rock locally intruded with Mesozoic granitic rocks.

Structurally, the Owens Valley is a graben bounded by the Sierra Nevada Frontal fault and the Inyo Mountain Frontal fault. These faults are considered active and the offset on these faults is the cause of the dramatic relief in the Owens Valley area. The Site is located on the valley floor at an elevation of approximately 3,640 feet, while Olancha peak, to the west of the Site in the Sierra Nevada Mountains, stands at an elevation of over 12,000 feet. The Inyo Mountains east of the Site have an elevation greater than 8,000 feet.

The California Department of Water Resources (DWR, 2003) shows the Site to be located in the southern portion of the Owens Valley Groundwater Basin. The groundwater basin has a surface area of 1,030 square miles and includes valleys in both Mono and Inyo County. The basin, as defined by the Department of Water Resources, is bounded to the south by the Coso Range, the Sierra Nevada to the west, the White/Inyo Mountains to the east, and the Benton Range to the north. Groundwater occurs in the sediments that fill the valley.

4.2 Site Hydrogeology

Based on the previous investigations, (see Section 3.0), the following description provides the basis of understanding for the Site hydrogeology. Further discussion of the Site hydrogeology based on the results of the Phase 3 investigation is presented in Section 6.2.3.

The most important water bearing formation in the vicinity of the Site is alluvium consisting of sands and gravels derived from erosion of Sierra Nevada Mountains to the west. The upper zone of the alluvial aquifer, in which the westernmost Site production wells are installed, is unconfined. Deeper zones of water bearing alluvium beneath the Site are under semi-confined conditions. The sandy and gravelly alluvium is locally interbedded or interfingered with fine-grained lacustrine (lake) deposits. Fine-grained lacustrine deposits increase in occurrence and thickness to the east towards Owens Dry Lake (GSI, 1983). The thickness of the alluvial and lacustrine sequence is thought to be

several thousand feet thick and up to 6,000 feet or more in the middle of the Owens Dry Lake (Pakiser et. al., 1964).

The primary source of groundwater recharge in the Owens Valley Groundwater basin is from percolation of stream flow from the Sierra Nevada range. In the case of the Site and the Cartago area, the main aquifer is thought to recharge primarily by flow in Olancha Creek, Cartago Creek, and Walker Creek that have watersheds to the west of the Site in the Sierra Nevada Mountains. Stream flow in these creeks is derived from precipitation in the mountains and infiltrates through relatively permeable alluvium closer to the valley floor. There is also thought to be some recharge of the alluvium from underflow of groundwater in fractures in the mountain bedrock, although the volume of such recharge is not known. Recharge of direct precipitation into the alluvium may also contribute a relatively small component of recharge into the groundwater basin.

Groundwater in the shallow unconfined aquifer is the source for numerous springs and seeps that collectively form along a north-south trending fault (a part of the Sierra Nevada Frontal fault system). The north-south trending fault is known locally as the "Spring-line fault" (**Figure 2**). The former AP and EP are located east of the fault, whereas the FP is located west the fault. The fault is inferred to cause a "damming" effect and the subsequent rise of groundwater to the surface creates the large linear spring areas or spring seeps (Dames and Moore, 1991). Production wells that have been installed by CGR draw water from the shallow unconfined aquifer in hydraulic connection with the spring water. Wells used for spring water production are all located west of the Spring-line fault.

Monitoring wells, OW-8U, OW-8US, OW-8D and OW-9U were installed east of the Spring-line fault. These wells are screened at depths of 55 – 75 feet below ground surface (ft bgs) for wells OW-8US and OW-9U, to 190 – 230 ft bgs for well OW-8U, and 582 – 642 ft bgs for well OW-8D. Groundwater in these wells has a significant upward gradient (potentiometric surface higher than ground level) and the well screens were not installed in the upper-most portion of the aquifer; therefore, the groundwater from these wells is not representative of the conditions of the upper-most aquifer.

Based on an extensive hydrogeological investigation conducted at the Site in 1991 by Dames and Moore, the groundwater gradient west of the Spring-line fault in the Site vicinity was calculated to be to the northeast towards Owens Dry Lake at a gradient of approximately 0.007 (see Figures 3 and 4 in Dames and Moore, 1991). More recently the groundwater gradient in the central portion of the Cabin Bar Ranch located north of the Site was calculated to be 0.015 to the east also toward Owens Dry Lake (Geosyntec, 2011). Additional discussion of the shallow groundwater gradient from data collected during the Phase 3 investigation areas is discussed further in Section 6.2.3.

As presented in Geosyntec's *Phase 3 – Additional Site Investigation Work Plan Addendum*, dated March 30, 2016 (Geosyntec, 2016), the Site groundwater model was updated to determine the following:

1) Maximum potential groundwater extraction in CGR production wells does not impact the groundwater flow direction east of the Spring-line fault,

2) Groundwater pumping at the Site and projected maximum groundwater production at the Cabin Bar Ranch does not produce a capture zone that draws water from east of the Spring-line fault, and

3) The particle track estimation for non-retarded groundwater flow shows that the path of groundwater from the area around the former AP, the EP, and the FP migrates northeast towards Owens Dry Lake, and is not influenced by pumping at the Site or at Cabin Bar Ranch.

The site groundwater model was further updated following the Phase 3 investigation as described in Section 5.1 and Appendix A of this report.

5.0 HYDROGEOLOGICAL SITE CONCEPTUAL MODEL

A hydrogeological site conceptual model (SCM), based on the information collected during the Phase 1 - 3 investigations and past hydrogeological investigations, is presented in this section.

The Site is located in the southern portion of the Owens Valley Groundwater Basin (DWR, 2003). The basin occupies a structural valley that, in the vicinity of the Site, is bounded on the west by the granitic bedrock of the Sierra Nevada Mountains and on the east by the sedimentary bedrock of the Inyo Mountains. To the east of the Site and in the middle portion of the valley is the Owens Dry Lake. The Owens Dry Lake is a desert playa where salts are generated at the surface via evaporation processes.

A hydrogeological conceptual model illustration of the Site is provided on **Figure 3**[1]. The major groundwater bearing unit in the basin is a thick sequence of alluvium that has been derived from erosion of bedrock in the bordering mountain areas. The alluvium beneath the site is principally derived from the Sierra Nevada Mountains to the west and generally consists of sands and gravels. These alluvial sands and gravels are interbedded or interfingered with finer-grained lacustrine deposits (i.e., lake deposits from the ancient Owens Lake). The sequence of alluvium and lacustrine deposits beneath the site is at least 750 feet thick (Montgomery, 1993).

The alluvial sand and gravels, and lacustrine clays and silts were encountered during drilling investigations at the site. The observed sequence of lacustrine and alluvial sediments beneath the site is the result of deposition associated with ancient fluctuations of water levels at the southwestern shoreline in Owens Lake. Alluvial materials derived from the Sierra Nevada Mountains were deposited along the shoreline while fine-grained lacustrine materials were deposited in the shallow lake waters. As the elevation of the lake varied, the shoreline moved laterally, causing interfingering of the coarse alluvial materials and the fine-grained lake deposits. The lacustrine deposits generally consist of silts, clays and very fine sands and have a relatively high organic content. Based on regional models and site drilling logs, the percentage of fine-grained material (lacustrine deposits) generally increases to the east. That is, the occurrence or presence of fine-grained silts and clays in the subsurface increases as one moves from the Sierra Nevada Mountain range towards Owens Dry Lake. It should also be noted that a shoreline deposit, generally consisting of light brown to white fine to coarse sands with some gravel, is located at the ground surface to a depth of approximately 12 to 15 ft bgs on the

[1] Note that this illustration is not to scale and site features are not included. It is intended for general visualization purposes only.

Site. The shoreline deposit is shown on **Figure 2** as the large non-vegetated area east of the bottling plant. The former AP and the EP are located on the shoreline deposit.

Groundwater beneath the site is mostly derived from precipitation (rainfall) and snowmelt in the Sierra Nevada Mountains to the west. Surface water runs off the Sierra Nevada mountain front and infiltrates the alluvium near the mountain base. Surface water or runoff quickly percolates into the sandy and gravelly alluvium and moves downward to the groundwater table. Some groundwater recharge also may occur from underflow through bedrock fractures and from direct precipitation on the valley floor.

Groundwater in the alluvium flows eastward, away from the Sierra Nevada Mountains and towards the central portion of the basin or towards Owens Dry Lake. The Owens Dry Lake is a groundwater discharge area where up-flowing groundwater is evaporated and, consequently, evaporite salts are produced.

Shallow groundwater beneath the site occurs under unconfined conditions; although where fine-grained layers are present, local semi-confined conditions may occur. The upper aquifer material beneath the site is referred to as the Shallow Zone. The Shallow Zone is defined herein as the saturated sand and gravel aquifer that overlies the fine grained lacustrine layer that occurs at a depth of approximately 80 feet. All monitoring wells, with exception to MW-15, installed during the investigation phases are completed in the upper-most portion of the Shallow Zone.

The depth to the shallow groundwater table beneath the site gradually decreases towards the east. A small and subtle escarpment extends from the area north of the Site (Cabin Bar Ranch) along an approximate north-south trend to the southern portion of the site. A series of springs in a linear trend occurs along this subtle escarpment. The easterly groundwater flow is impeded and subsequently produces a rise of the groundwater table resulting in observed springs/seeps along a linear trend in the central and eastern portions of the site. This escarpment is interpreted to be associated with the presence of an underlying fault referred to as the Spring-line fault. The interpreted Spring-line fault location is shown on **Figure 2**. The former AP and EP are located east of the fault, whereas the FP is located west the fault. The fault is generally interpreted to act as a leaky groundwater barrier and the aligned springs and seeps are caused by a small rise of shallow groundwater and the subsequent intersection of groundwater with ground surface along the fault. An alternate interpretation is that the rise of groundwater is associated with the increase of fine-grained lacustrine deposits towards the east causing a permeability barrier. However, the linear nature of the spring locations suggests the fault interpretation is more likely. The rise of groundwater in the area as a result of this

interpreted fault, together with the high regional evaporation rate, has resulted in soils with high salt content.

Located on the Cabin Bar Ranch property directly adjacent and to the north of the Site, there are production wells, domestic water supply wells, observation monitoring wells, and piezometers. Additionally, there are active domestic water supply wells and one municipal production well in the town of Cartago. The production wells and domestic wells at the Site and at Cabin Bar Ranch are completed in the deeper portions of the Shallow Zone. Some observation wells at the Site and at Cabin Bar Ranch are completed in the Deep Zone. Based on previous studies completed by Geosyntec and others, there is some leakage between the Deep and Shallow Zones, however, there is a site-wide upward groundwater gradient based on comparison of water levels in co-located observation wells completed in the Deep and Shallow zones. That is, wells completed in the Deep Zone have static water level at a higher elevation than those completed in the Shallow Zone. This condition can be seen at observation wells OW-7U and OW-7M, and at OW-10U and OW-10M for example (Appendix A-3). The majority of the site wells, except for monitoring wells associated with the investigation, have been installed west of the Spring-line fault. Groundwater quality and water levels are monitored at the Cabin Bar Ranch on a quarterly basis in accordance with the Groundwater Monitoring, Mitigation, and Reporting Plan (GMMRP) dated June 18, 2014 (GMMRP, Geosyntec Consultants, 2014). The GMMRP monitoring program was developed to evaluate potential water level and water quality impacts due to proposed pumping at the Cabin Bar Ranch facility. The GMMRP quarterly groundwater monitoring program was initiated in March 2016, and pertinent data will be provided to update this SCM and investigation results as they are available.

Groundwater quality is an important component of the groundwater investigation at the Site. Generally, concentrations of TDS, sodium, carbonate, and metals, including arsenic in the Shallow Zone substantially increase to the east toward Owens Dry Lake where up-flow of groundwater and evaporation processes have created salt pans. As noted in previous reports (Geosyntec, 2015a and 2015b) and based on previous investigations at the site, arsenic is well known to be a naturally occurring element in the soil, alluvium, and groundwater in the region of the Site. Generally, elevated arsenic concentrations (> the MCL) are characteristic of groundwater derived from the Eastern Sierra Nevada watershed. Site production wells located west of the Spring-line fault, which produce from deeper portions of the Shallow Zone, have arsenic in the approximate range of 16 to 28 µg/L[2]. It is reasonably concluded that naturally occurring arsenic concentrations in groundwater increases eastward of the Spring-line fault as a result of the increasing

[2] Range of arsenic concentrations based on annual sample results in 2012 and 2013 from CGR production wells CGR-1, CGR-3, CGR-5, CGR-6, and CGR-7.

presence of the lacustrine sediments toward Owens Dry Lake. Shallow groundwater sampling (< ~10 feet) by others beneath the eastern portion of Owens Dry Lake documented arsenic concentrations in the range of 1,400 – 163,000 µg/L (Levy et. al., 1999). Levy et. al. (1999) also report very high salinity [up to 300,000 milligrams per liter (mg/L)] in the shallow Owens Dry Lake groundwater. Further, arsenic concentrations in shallow groundwater in the southern Owens Dry Lake area, i.e. the Dirty Socks-Cartago Creek Area near the Site, average 32,055 µg/L at 4 ft bgs and 5,596 µg/L at 10 ft bgs (Great Basin Unified APCD, 2009). Again, it is very likely that these elevated concentrations are associated with the fine-grained lacustrine deposits and salt deposits. Thus, as the presence of these layers increases, it is expected that naturally occurring arsenic concentrations as well as TDS will likewise increase substantially. However, this expected eastward increase in arsenic and salinity is a general trend that is locally dependent on the volume of fine-grained lacustrine sediment and its impact of groundwater encountered in each area. Recent shallow groundwater samples collected at a location north of the former AP and east of the Spring-line fault on Cabin Bar Ranch provide a reasonable environmental analog to the former AP location. Naturally occurring arsenic concentrations of up to 521 µg/l have been detected at this analog location indicating that high arsenic background concentrations occur locally east of the Spring-line fault (Geosyntec, 2016b).

As noted in the previous paragraphs, the former AP and EP are located east of the Spring-line fault. The groundwater gradient in this area is towards the northeast. Therefore, migration of groundwater containing elevated arsenic and other compounds is towards Owens Dry Lake where groundwater is extremely saline with elevated natural concentrations of arsenic in the shallow groundwater. Although the shallow groundwater in the Owens Valley Groundwater Basin is designated for beneficial use, the groundwater beneath the Owens Dry Lake proximal to the Site is not currently nor can foreseeably be used as a drinking water or agricultural resource in the future.

5.1 MODFLOW Groundwater Model Update

A hydrogeological groundwater model originally developed for the Cabin Bar Ranch in 2014 was updated and applied to evaluate groundwater flow conditions in the vicinity of the former Arsenic Pond (**Appendix A**). The model prepared using MODFLOW™ software was calibrated based on data collected from hydrogeologic investigations conducted on the Cabin Bar Ranch property as well as at the Site. The original model for the Cabin Bar Ranch property was used to estimate the impacts to groundwater levels, spring flow, and other water supply wells in the area based on future pumping scenarios. This model was updated to include water levels based on data collected at the Site and vicinity in September 2016. The updated model is provided as **Appendix A** and includes:

1. A description of the numerical modeling approach used in the simulations;

2. An assessment of the groundwater flow and potential mounding at the former AP and EP under historical wastewater discharge conditions;

3. Capture zones of all significant production wells based on current and projected pumping rates; and

4. Groundwater particle tracks for all site waste discharge ponds under projected pumping conditions.

Updates to the model include groundwater levels from site wells based on groundwater level monitoring conducted in September 2016, inclusion of all the monitoring wells associated with the investigation (MW-01 through MW-15), as well as monitoring wells and piezometers installed as part of the Cabin Bar Ranch project and the GMMRP program. Additionally, the model includes a sensitivity analysis using a range of hydraulic conductivity[3] values in the areas east of the Spring-line fault to represent the inter-fingered, fine-grained lacustrine deposits found in these areas. This analysis was conducted to determine the potential for groundwater mounding to have occurred in the area of the former AP and the EP.

The updated model results are provided in **Appendix A**. The results of the updated model indicate that groundwater flows to the east from the Sierra Nevada Mountains and into the alluvial deposits west of the Spring-line fault, then rises to the ground surface along a line of springs identified near the Spring-line fault. East of the Spring-line fault, groundwater flows to the northeast and ultimately discharges at Owens Dry Lake. The model results indicate that under historical typical and maximum discharge flow rates, the impacts to water levels in the vicinity of the Former Arsenic Pond and East Pond is minimal with no groundwater mounding evident. Therefore, it is unlikely that any potential leak from the Former AP migrated significantly up-gradient towards the area of monitoring wells MW-03 and MW-15 and impacted groundwater quality.

Additionally, the capture zone and particle track analysis indicates that proposed future pumping at the Site or at Cabin Bar Ranch will not draw water from east of the Spring-line fault towards the west. The particle track analysis also indicates that groundwater in the area of all waste discharge ponds will migrate to the northeast and discharge at Owens Dry Lake (an area of very high TDS and arsenic in groundwater). The model clearly

[3] The hydraulic conductivity east of the spring line fault was estimated at approximately 250 ft/day to account for the interbedded sands and fine-grained silts and clay lacustrine deposits found east of the Spring-line fault.

indicates that groundwater originating at and near the former AP will not impact any pumping wells (current or foreseeably planned) including those of the Cartago Mutual Water District.

6.0 FIELD METHODOLOGY

The following sections describe the general procedures for the Phase 3 field work. The Phase 3 borings and well locations are shown on **Figure 2**.

6.1 Health & Safety Plan

A site-specific Health & Safety Plan (HASP) was prepared for Geosyntec personnel. Sub-contractors working on the project provided their own personnel with HASPs. All site personnel had 40-hour health and safety training (CFR 1919.120).

6.2 Well Permitting

Prior to mobilizing to the Site, Geosyntec applied for and obtained monitoring well permits from the County of Inyo Environmental Health Department. Copies of the well permits are provided in **Appendix B**.

6.3 Drilling, Soil Logging, and Soil and Groundwater Grab Sampling

Two soil borings and six monitoring well borings were continuously cored using a direct push rig operated by Gregg Drilling and Testing, Inc. between August 22 and August 30, 2016. Drilling, sampling, and decontamination procedures were conducted in accordance with the standard operating procedure (SOP) provided in Appendix C of the Phase 1 Workplan (Geosyntec, 2014). All re-useable equipment was decontaminated

During drilling, the field geologist prepared a boring log describing soil lithology and well construction logs documenting the monitoring well construction details. Soil lithology was logged in general accordance with the Unified Soil Classification System under the supervision of a licensed Professional Geologist. Lithologic boring logs are included in **Appendix C**.

Soil samples were collected from boring B-01 by cutting approximately a 6-inch undisturbed section of the continuously cored acetate liners. The ends of the soil cores were covered with Teflon tape, capped, and placed in a cooler for transport to the analytical laboratory. Additionally, two soil samples, SS-01 and SS-02, were collected in an area of exposed soil northeast of the southern bottling facility per a direct onsite request from the RWQCB (**Figure 2**). These samples were collected in 8-ounce jars with one sample collected at ground surface and the other collected at approximately 10-inches bgs. All samples were placed in a cooler with wet ice for transport to the analytical laboratory.

Groundwater grab samples were collected from borings B-02, MW-12, MW-13, MW-14 and MW-15. The grab groundwater samples were collected using a Hydropunch® sampling system pushed into undisturbed soil via direct push drilling rods. Once the

Hydropunch® sampling equipment was pushed to the desired depth, the rods were pulled up to expose the Hydropunch® screen across the target saturated zone, allowing formation water to enter the drill/sample rods. The formation water within the sampling system was "developed" by carefully removing approximately 1-2 gallons via a bailer prior to sampling for metals. Groundwater samples were first collected in a one-liter unpreserved container to serve as an aliquot. This aliquot was then shaken to homogenize the suspended sediment and half of the aliquot was poured into a preserved bottle for total metals analysis. The second half of the aliquot was field filtered and poured into a preserved bottle for dissolved metals analysis.

6.4 Monitoring Well Installation, Development, and Sampling

Monitoring well installation, development, sampling, and decontamination procedures were performed in accordance with the SOP provided in Appendix C of the Phase 1 Workplan (Geosyntec, 2014). Following the direct push drilling, logging, and groundwater grab sampling, a total of six, 2-inch diameter Schedule 40 PVC groundwater monitoring wells were installed by Gregg Drilling and Testing, Inc. between August 22 and August 30, 2016. Monitoring well installation was conducted using an 8-inch diameter hollow-stem auger (HSA) drill rig in locations approximately ten feet away from the initial direct push borings. Following direct push lithologic logging, the monitoring well construction designs and screen lengths were designed to appropriately target the uppermost shallow groundwater zone while taking precautions to avoid installing the screen across significant silt or clay layers. The annulus between the screen interval and the borehole wall was filled with #2/12 sand that extended from the bottom of the borehole to approximately one foot above the top of the screen. The well was sealed using a minimum of 1-foot thick hydrated bentonite chips above the sand filter pack and a bentonite grout mix was placed via tremie pipe to the ground surface. The monitoring wells were completed with three-foot tall, above ground monuments set in 4-foot by 4-foot concrete pads at the ground surface as required by the County of Inyo Environmental Health Department permit requirements. Monitoring well completion logs are included in **Appendix C**.

Between August 30 and September 01, 2016, the wells were developed a minimum of 48-hours following installation. The wells were developed using a surge block, bailer, and submersible pump. Well development was finished by pumping the wells using a 2-inch diameter electric submersible pump. Development continued until the turbidity reduced to approximately 50 NTUs and water quality parameters had stabilized. An exception to this was monitoring wells MW-14, which did not yield water after construction, and MW-11 which was pumped dry numerous times and was completed with a turbidity of 148 NTU. Well development logs are included in **Appendix D**.

Following well development, groundwater samples were collected from the monitoring wells using the low-flow purge and sampling technique. During monitoring well

groundwater sampling for dissolved and total metals analysis, water samples were first collected in a one-liter unpreserved container to serve as an aliquot. This aliquot was then shaken to homogenize the suspended sediment and half of the aliquot was poured into a preserved bottle for total metals analysis. The second half of the aliquot was field filtered and poured into a preserved bottle for dissolved metals analysis. Water quality parameters of temperature, electrical conductivity, pH, oxidation reduction potential (ORP), dissolved oxygen (DO), and turbidity were collected using a field water quality meter calibrated in accordance with the manufacturer's specifications. Additionally, total and residual chlorine were analyzed in the field using a colorimeter. Monitoring well field sampling logs are included in **Appendix E**.

A survey of the latitude, longitude, and top of well casing elevations of the groundwater monitoring wells was conducted following installation by Triad/Holmes Associates, Inc., a licensed professional surveyor (**Appendix F**).

6.5 Soil Vapor Probe Sampling

The soil vapor probe (SVP) was purged and sampled on August 30, 2016, in general accordance with State of California Department of Toxic Substances Control (DTSC)/Los Angeles Regional Water Quality Control Board *Advisory on Active Soil Gas Investigations* (DTSC/Regional Board, 2015).

The general soil vapor sampling procedures were as follows:

- Static pressure or vacuum in the SVP was measured and recorded.
- Leak checks involving "shut-in" and helium tracer testing were performed to verify that all couplings and fittings in the sampling train are free of leaks.
- Soil vapor was purged prior to sample collection in order to ensure the sample was representative of soil vapor contained within the geologic materials outside the SVP and filter sand surrounding the SVP screen.
- During purging, soil vapor was collected in a Tedlar® bag and screened for VOCs using a photoionization detector (PID) calibrated to isobutylene.
- Helium was used as a leak check tracer compound during purging and monitoring. Helium was introduced into a shroud which encompassed the SVP surface connections during the purge prior to sample collection.
- After purging and stabilization of field monitoring parameters, soil vapor samples for laboratory analysis were collected in 1-L Summa canisters; one primary and one duplicate sample. The canisters used for sampling were batch certified by the analytical laboratory.

- Sample identification and sample times were recorded on standard chain-of-custody documentation and transferred to the analytical laboratory.

Soil vapor sampling logs are included in **Appendix E.**

6.6 Laboratory Analytical Schedule

All soil, groundwater, and soil vapor samples were analyzed by Eurofins-Calscience Environmental Laboratory. The soil samples were analyzed for the following parameters:

- Boring B-01 soil samples were analyzed for Title 22 metals using EPA Method 6010B and 7471A; and

- Surface soil samples (SS-01 and SS-02) were analyzed for Title 22 metals using EPA Method 6010B and 7471A, semi-volatile organic compounds (SVOCs) using EPA Method 8270C, and VOCs using EPA Method 8260B[4].

Groundwater grab samples were analyzed for:

- CAM 17 metals, (total and dissolved) using EPA Method 6010B and 7470A;

Groundwater monitoring well samples were analyzed for:

- CAM 17 metals, (total and dissolved) using EPA Method 6010B and 7470A;

- VOCs using EPA Method 8260B;

- Semi-Volatile Organic Compounds (SVOCs) using EPA Method 8270C;

- Methylene Blue Active Substances (MBAS) using SM Method 5540C;

- General Minerals (sodium, calcium, magnesium, chloride, bicarbonate, and sulfate) using EPA Method 200.7, 300.0 and Standard Method (SM) 2320B;

- Total Dissolved Solids (TDS) using SM 2540C;

- Total phosphate and phosphorus using SM 4500;

- Total nitrogen, nitrate as nitrogen, ammonia, and Total Kjeldahl nitrogen using SM 4500; and

[4] VOCs and SVOCs were added to the analytical suite six days after collection due to information from the RWQCB of their intent to run split samples for these analyses.

- Total and fecal coliform using SM 8221B (analyzed by BC Laboratories due to short hold time).

Soil vapor samples were analyzed for:

- VOCs using EPA Method TO-15.

6.7 Investigative Derived Waste

Soil cuttings were transferred to a lined roll-off bin while well development and purge/decontamination water was transferred to a holding tank. All soil and water IDW was stored onsite pending laboratory analysis and profile acceptance. A composite sample of both the soil cuttings and the purge/decontamination water were collected and analyzed for VOCs using EPA Method 8260B and Title 22 Metals using EPA Methods 6020/7470A (aqueous) or 6010B/7471A (solid); soil was also analyzed for total petroleum hydrocarbons using EPA Method 8015M. Based on the results of the waste profile samples, a non-hazardous waste profile was accepted at a licensed waste disposal facility. The soil bin was transported to Soil Safe of California in Adelanto, California on September 9, 2016 and the water was transported to Crosby and Overton, in Long Beach California on September 20, 2016. The transportation waste manifests for the soil and water transported off the Site is included as **Appendix G**.

7.0 INVESTIGATION RESULTS

The following sections present the results of the Phase 3 investigation. A summary of the soil sample analytical results are presented in **Table 1**. A summary of the groundwater well construction details and historical groundwater elevations are presented in **Table 2**. The field groundwater quality parameters collected during sampling are presented in **Table 3**. Groundwater analytical results are presented in **Tables 4** through **6** and soil vapor sample results are presented in **Table 7**. A site plan with Phase 3 investigation locations and all groundwater monitoring well locations are presented on **Figure 2**. The groundwater elevations and groundwater gradient from measurements collected during the third quarter of 2016 are shown on **Figure 4**. Dissolved arsenic isoconcentration contours are shown on **Figure 5**. **Figure 6** shows the lines of geologic cross sections presented in **Figure 6A** through **6E**. Stiff plot comparisons of inorganic data collected during the third quarter 2016 are presented on **Figure 7**. The laboratory analytical reports for soil, soil vapor, and groundwater samples are presented in **Appendix H**.

7.1 Soil Results

7.1.1 Soil Classification and Field Data

The soil types encountered in borings B-01 and MW-10, located in the vicinity of the FP, generally consist of well graded sand interbedded with silt and silty sand from ground surface to total depth. The soils classified in these borings are interpreted to be alluvial fan sediments derived from erosion of the Sierra Nevada Mountains to the west of the Site. Both B-01 and MW-10 are installed in locations west of the Spring-line fault and significant lacustrine deposits were generally not encountered.

In borings B-02 and MW-15, completed in locations around the former AP, the soil types generally consist of well graded sand with trace gravel, from ground surface to depths ranging from approximately 11 to 14 ft bgs. Underlying the well graded sands are alternating layers of silts/clays and sands to total depth. In borings for monitoring wells MW-11 and MW-12, located downgradient from the former AP and within the historical lake bed footprint, fine-grained silt was encountered at ground surface with alternating layers of silts/clays and sands to total depth. The soil sequence observed in these borings is interpreted to be recent alluvial deposits at the former lake shore of the Owens Dry Lake shoreline underlain by interfingered fine-grained lacustrine sediments. These borings were all completed east of the Spring-line fault.

In boring MW-13 completed cross-gradient of the former AP and the EP, the soil types consisted of well graded sand and gravel interbedded with silty sand from ground surface to approximately 12 ft bgs. Underlying the well graded sands were alternating layers of silts/clays and sands to total depth. In boring MW-14 located upgradient of the EP, well graded sand was encountered from ground surface to 16 ft bgs underlain by silt to total

depth. The soil encountered in these borings are similar to the soils encountered near the former AP and interpreted to be alluvial deposits at the former shoreline of Owens Dry Lake underlain by interfingered fine-grained lacustrine sediments. These borings were also completed east of the Spring-line fault.

No indications of contamination such as staining, discoloration, or odors were encountered during soil logging. PID readings collected in the field ranged from 0.0 to 0.6 parts per million volume (ppmv), with the highest PID reading recorded in MW-15 at approximately 25 ft bgs. The borehole logs are presented in **Appendix C**.

7.1.2 Soil Sample Analytical Results

A total of 4 soil samples were collected at different depths in boring B-01 located adjacent to MW-01 and the FP and analyzed for Title 22 metals. Two surface soil samples, SS-01 and SS-02, were collected at ground surface to the northeast of the southern bottling facility and were analyzed for Title 22 metals and VOCs. **Table 1** presents a summary of the detected metals for soil boring samples from B-01 and surface soil samples. Only detections above the laboratory minimum reporting limits (MRLs) are presented in the table; all other results were not detected above laboratory MRLs. **Table 1** also includes two regulatory screening levels including 1) the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (USEPA, 2016) based on an industrial site setting and 2) the maximum contaminant level (MCL)-based protection of groundwater value.

In boring B-01, arsenic, barium, beryllium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc were detected above the laboratory MRL in one or more samples collected. The maximum concentration of arsenic [23.1 milligrams per kilogram (mg/kg)] was detected at 15 feet bgs. Additionally, the maximum concentration of all detected metals in boring B-01 were detected at 15 or 18 feet bgs.

In soil samples SS-01 and SS-02, VOCs and SVOCs were non-detect[5]. Antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc were detected above the laboratory MRL in one or both soil samples. Soil sample analytical reports are included in **Appendix H**.

7.2 Groundwater Results

7.2.1 Groundwater Grab Analytical Results

Groundwater grab samples were collected as described in Section 5.3 at five locations: B-02, MW-12, MW-13, MW-14, and MW-15. Concentrations of antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, and nickel were detected

[5] Note data validation qualification for soil sample VOC analysis. See Section 6.4.

above their respective MCLs as indicated by shaded cells in **Table 4**. Dissolved arsenic and total arsenic concentrations are included in the cross-sections on **Figures 5A** through **5E**. Dissolved arsenic concentrations in groundwater grab samples from boring MW-15, located upgradient to the former AP, ranged from 62.9 to 201 µg/L. Concentrations of dissolved arsenic in groundwater grab samples from boring B-02, located downgradient to the former AP, ranged from 13.3 to 363 µg/L. Concentrations of dissolved arsenic in other groundwater grab samples collected from borings both down- and cross-gradient to the former AP ranged from 27.4 to 111 µg/L.

In general, concentrations of other metals were detected within the range of concentrations detected in groundwater grab samples collected in either boring MW-14 or MW-15, located cross- and upgradient to the former AP, respectively (**Figure 2**).

7.2.2 Monitoring Well Groundwater Analytical Results

Fifteen groundwater monitoring well samples and two duplicate samples were collected as part of this investigation to coincide with the third quarter 2016 monitoring event. The stabilized field groundwater quality monitoring parameters collected prior to groundwater sample collection are presented in **Table 3**. The analytical results for the groundwater samples are summarized in **Tables 4** through **6.**

The primary constituent of concern in groundwater at the Site continues to be arsenic which was detected above the MCL in 12 of the Site monitoring wells. In general, concentrations of dissolved arsenic and other metals detected in the third quarter 2016 monitoring event were similar to the previous monitoring event (**Table 4**).

Concentrations of general minerals were similar to results from previous monitoring events (**Table 5**). Stiff plots for each of the monitoring wells are presented on **Figure 7** for comparison. Based on the stiff plot comparison, concentrations of anions and cations generally increase towards the east of the Site in the direction of the Owens Dry Lake. The secondary MCLs for the following constituents were exceeded during the third quarter 2016:

- The TDS secondary MCL of 500 mg/L was exceeded in wells MW-04, MW-05, MW-06, MW-09, MW-11, and MW-12;
- The sulfate secondary MCL of 250 mg/L was exceeded in wells MW-04, MW-05, MW-09, and MW-11;
- The chloride secondary MCL of 250 mg/L was exceeded in well MW-06; and

Fecal and/or total coliform were detected slightly above the laboratory MRL in monitoring wells MW-07, MW-09, MW-13, and MW-15. Note that MW-15 is a deep screened well located upgradient of the former AP suggesting that potential cross-

contamination (i.e. field or laboratory contamination) could be responsible for the detection.

VOCs and SVOCs were not detected during the third quarter 2016 sampling event. Further discussion of the groundwater sample analytical results is presented in Section 7.3.

7.2.3 Groundwater Elevation Data

Groundwater level measurements were collected from the Site monitoring wells during the third quarter 2016 monitoring event. The well construction specifications and historical groundwater level monitoring data are presented in **Table 2**. Decreases in groundwater elevations since the previous monitoring event were observed across the Site with the greatest decrease noted in monitoring well MW-09 (1.55 feet). Groundwater elevations for the shallow zone monitoring wells ranged from 3,589.82 feet above sea level (ft asl) in well MW-12 to 3,620.32 ft asl measured in MW-01. Monitoring wells MW-15, OW-8US, and OW-8U are screened deeper than the shallow zone monitoring wells at 43-48 ft bgs, 55-75 ft bgs, and 190-230 ft bgs respectively. The groundwater elevation measured in MW-15 is 15.84 feet higher than the groundwater elevation measured in the adjacent shallow zone well MW-03, indicating a significant upward groundwater gradient. Additionally, OW-8US has approximately 2 psi of artesian pressure at the well head, corresponding to a projected groundwater elevation of 3604.88 ft asl, whereas OW-8U has approximately 12 psi of artesian pressure at the well head corresponding to a projected groundwater elevation of 3627.69 ft asl.

Groundwater elevation contours for the third quarter 2016 are presented on **Figure 4**. The groundwater flow direction is towards the northeast in the area beneath the former AP and the EP. The groundwater gradient, calculated using the 3-point method, is approximately 0.009 feet/ft in the area of the former AP and EP, consistent with previous measurements. The groundwater gradient calculated in this and previous investigations indicates that the flow direction and magnitude is similar on both sides of the Spring-line fault.

7.3 Soil Vapor Sample Results

Site SVP SV-01 was sampled during the third quarter 2016 monitoring event with one primary and one duplicate sample collected. Acetone, 2-butanone, trichloroethene (TCE) and vinyl acetate were detected at very low levels above laboratory reporting limits in either the primary or duplicate sample (**Table 7**). Since the concentrations were not reproducible in both the primary and duplicate samples at similar concentrations, the detections were qualified as estimated. These concentrations were well below the screening levels for residential vapor intrusion concerns. All other VOCs were not detected above the laboratory MRLs.

7.4 Data Validation

The data were validated at a United States Environmental Protection Agency (EPA) Stage 2A data validation level. Based on this Stage 2A data validation covering the quality control (QC) parameters listed in the data validation summaries, the data as qualified are usable for meeting project objectives, with the exceptions of rejected data. Further summary of the data validation results is presented in **Appendix I**. Qualified data should be used within the limitations of the qualification. The following rejection qualifications for soil samples were identified based on the Stage 2A data validation:

- The non-detect results of VOCs in samples SS-01-160823 and SS-02-160823 are R qualified as rejected, based on professional and technical judgment and gross exceedance (more than two times) of the VOC extraction holding time of 48 hours[6].

- Due to matrix spike/matrix spike duplicate (MS/MSD) recoveries less than 20%, the non-detect result of vinyl acetate in sample SS-02-160823 was R qualified as rejected.

[6] VOC analysis was requested by the RWQCB six days following sample collection.

8.0 DATA EVALUATION AND CONCLUSIONS

8.1 Soil Conditions

The soil types encountered in the vicinity of the FP, west of the Spring-line fault, are interpreted to be alluvial fan sediments derived from erosion of the Sierra Nevada Mountains to the west of the Site. The soil types encountered surrounding the former AP and the EP, east of the Spring-line fault, indicate that the surficial soils are coarse-grained sands representative of the former shoreline of the now dry Owens Lake. Soil types encountered below the coarse-grained sands were fine-grained lacustrine deposits interbedded with alluvial sands. This sequence of soil types is consistent with borings that have been completed east of the Spring-line fault.

Soil sample analytical results for metals were compared to two regulatory screening levels including 1) the EPA RSLs based on an industrial site setting and 2) the MCL-based protection of groundwater value. In addition, soil concentrations were compared to the California median background soil values (UCR/DTSC, 1996). Of the metals detected in the soil samples, antimony and arsenic were detected at concentrations exceeding one or more of these screening levels. Additionally, concentrations of arsenic and molybdenum detected in boring B-01 at depths of 15 and 18 ft bgs, respectively, exceeded the California median background for soil concentrations (UCR/DTSC, 1996 and Chernoff, et.al., DTSC, 2008). Concentrations of arsenic in the upper portion of boring B-01 at 5 and 10 ft bgs were 1.34 and 1.61 mg/kg, respectively. Boring B-01 is located approximately 350 feet upgradient of the original FP outfall, and over 200 feet cross-gradient from the current outfall. Based on the B-01 soil sample depths and the location which is up/cross-gradient from discharge outfalls, it appears that the concentrations of arsenic and molybdenum are representative of naturally occurring regional levels that are higher than the median California background levels.

Samples SS-01 and SS-02 were collected as a split sample with the RWQCB. The objective of collection of these samples, according to the RWQCB, was to evaluate if uncontrolled releases of spent arsenic filter media had occurred in the past at the sample location. The RWQCB selected the sample location, based on the color and texture of the surface soils, and the color and texture of the soil underlying the surficial soil. The results of both the surficial soil sample and the sample collected in the soil horizon directly below did not contain concentrations of arsenic indicative of a release of spent arsenic filtration media.

8.2 Soil Vapor

Concentrations of VOCs were detected at low concentrations in the sample collected. While vapor intrusion is very unlikely at this Site, all sample results were much lower than the most conservative screening levels for residential vapor intrusion concerns. In

addition, VOCs in groundwater from surrounding locations did not have detections of VOCs. Based on the results of current and historical soil vapor sample results and the current and historical groundwater sample results, there has not been a significant release of VOCs in the area around the valve distribution box.

8.3 Groundwater

Based on groundwater samples collected during the Phase 3 Site Investigation, groundwater quality has been characterized in both the lateral and vertical directions for the constituents of concern. In particular, arsenic has been delineated with lateral control from wells MW-08 and MW-11 located to the north of the former AP, and wells MW-06 and MW-09 located to the south of the former AP and EP. Monitoring wells MW-07 and MW-12, located to the east of the former AP and EP, provide downgradient control points for arsenic concentrations. In addition, monitoring well MW-10 provides downgradient control in the area of the Fire Pond (**Figure 4**). While groundwater samples could not be collected in well MW-14 as it was dry at the time of sampling, this well will also provide additional future control to the south of the former AP as water levels are expected to increase in this well due to seasonal groundwater fluctuation.

Supplemental to the lateral groundwater delineation efforts, groundwater modeling under historical wastewater discharge conditions indicated the impact to water levels in the vicinity of the former AP is minimal with no groundwater mounding evident (i.e. upgradient towards MW-03 and MW-15). Therefore, it is highly unlikely that any leaks from the former AP could be expected to have migrated upgradient towards the area of monitoring wells MW-03 or MW-15 and cause groundwater quality impacts. This further supports the conclusion that groundwater in wells MW-03 and MW-15 are representative of background groundwater quality concentrations at the site.

Groundwater was characterized vertically in relation to the former AP based on the numerous groundwater grab samples collected in upgradient boring MW-15, downgradient boring B-02, and down- and cross-gradient borings MW-12, MW-13, and MW-14. In groundwater grab samples collected from boring MW-15, located approximately 70 feet upgradient of the former AP, dissolved arsenic concentrations ranged from 62.9 to 201 µg/L. The highest concentration of dissolved arsenic in boring MW-15 was detected in the sample collected from 14 ft bgs in a sandy layer identified just below a fine-grained silt layer. Note that in monitoring well MW-03, located approximately 30 feet upgradient of MW-15, dissolved arsenic was detected an order of magnitude lower at 11.9 µg/L with the pump inlet depth at a comparable depth to the high detection in MW-15.

In downgradient boring B-02, groundwater grab samples from 12.25, 15.5, and 23 ft bgs were collected in every water-bearing coarse-grained (sand) unit. Note that low permeability, fine-grained silt and clay units were present between the coarse-grained

units where groundwater grab samples were collected (**Figure 6A**). The concentrations of dissolved arsenic decreased between the 12.25 ft bgs and the 15.5 ft bgs sample from 363 to 45.5 ug/L and decreased again between the 15.5 ft bgs and 23 ft bgs sample from 45.5 to 13.3 ug/L. An elevated dissolved arsenic concentration of 119 µg/L was observed in the deepest sample collected from downgradient boring B-02 at a depth of 25.5 ft bgs within the same sand unit as the 23 ft bgs sample, and directly above a fine-grained unit. The distribution of dissolved arsenic concentrations in the deeper samples (i.e. higher in the deepest sample than shallower samples) is not consistent with a leak from the former AP and may indicate elevated background levels at depth.

These findings suggest that arsenic concentrations in groundwater near the former AP (and the overall area east of the Spring-line fault) is very heterogeneous, varying between tens or hundreds of µg/L within short distances (i.e., within feet) both laterally and vertically. Elevated arsenic concentrations are often associated with the fine-grained deposits due to adsorption of arsenic onto iron-bearing clay minerals and organic matter, both of which are also commonly concentrated in clay and silt deposits. Thus, as the presence of the lacustrine layers increases, it is expected that naturally occurring arsenic concentrations will likewise increase substantially, but this general trend will not be laterally continuous due to the heterogeneous distribution of the fine-grained deposits. Arsenic concentrations would also be expected to increase near and within these fine-grained deposits on a localized basis, thus, possibly explaining the observed dramatic variations observed in groundwater grab samples collected at the Site (Geosyntec, 2016b).

In groundwater monitoring well samples collected as part of the third quarter 2016 monitoring event, concentrations of dissolved arsenic and other metals were generally similar to previous monitoring events. The dissolved arsenic concentrations detected in groundwater monitoring well samples, may be the result of monitoring well screens spanning across multiple fine-grained units. Additionally, naturally occurring arsenic concentrations in groundwater increase east of the Spring-line fault reaching very high concentrations beneath the Owens Dry Lake. Further, increases in concentrations of anions and cations in Site monitoring wells generally increase towards the east of the Site in the direction of the Owens Dry Lake.

In conclusion, impacts from any potential prior releases of arsenic from the former AP are minimal compared to the naturally high background arsenic concentrations in the area, including extremely elevated arsenic concentrations known to occur hydraulically downgradient of the former AP in the Owens Dry Lake area. Any potential impacts of dissolved arsenic releases from the former AP are within the Site natural background levels and considerably below concentrations found within goundwater beneath the southern portion of the Owens Dry Lake. In addition, current analyses clearly show that groundwater originating at and near the former AP will not impact any water supply wells in the area and, based on current information, no known material harm to the environment

or reasonably foreseeable beneficial uses for waters of the State have occurred (Geosyntec, 2016b).

9.0 RECOMMENDATIONS

The Phase 3 Site investigation was conducted to further evaluate the soil, soil vapor, and groundwater conditions in the areas around the former AP, the EP and the FP. Additionally, the investigation was completed to evaluate groundwater gradient and flow patterns in the upper-most shallow groundwater aquifer. Based on results obtained from the Phase 3 investigation and the third quarter 2016 monitoring event, Geosyntec provides the following recommendations:

1. Based on very low to non-detected and inconsistent results over the last year of quarterly monitoring, and in consideration that all sewage waste water is fully contained in a tank system and not discharged to the groundwater, Geosyntec again recommends that the analytical requirements for total and fecal coliform be removed.

2. Considering that VOCs have not been detected in quarterly groundwater monitoring samples (with the exception of acetone detected during the second quarter 2016), Geosyntec again recommends that VOCs be removed from the groundwater analytical schedule.

3. SVOCs have not been detected in groundwater since monitoring was initiated and therefore Geosyntec again recommends removing SVOCs from the analytical schedule.

4. Based on very low to non-detected and inconsistent detections of VOCs in soil vapor samples collected for the past five quarters (below conservative screening levels for residential vapor intrusion concerns) and in consideration that VOCs have not been detected in groundwater samples, Geosyntec again recommends that soil vapor sampling is removed from the sampling schedule and the soil vapor probe be destroyed.

5. Based on consistent results obtained from five consecutive groundwater monitoring events, Geosyntec recommends that a reduction in groundwater sampling frequency to a semi-annual schedule is requested for the Site (spring and fall).

10.0 REFERENCES

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TABLES

Table 1
Soil Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Location	Depth (ft bgs)	Date Sampled	Sample ID	Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Chromium mg/kg	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Molybdenum mg/kg	Nickel mg/kg	Vanadium mg/kg	Zinc mg/kg
B-01	5	2016-08-23	B-01-S-05-160823	**< 0.773**	1.34	24	< 0.258	0.612	2.32	4.11	2.01	< 0.258	0.773	9.19	33.2
B-01	10	2016-08-23	B-01-S-10-160823	**< 0.754**	1.61	23.7	< 0.251	1.28	2.13	3.72	1.87	< 0.251	0.809	8.68	29.6
B-01	15	2016-08-23	B-01-S-15-160823	**< 0.754**	23.1	65.6	0.353	1.93	5.47	11.4	7.55	< 0.251	2.05	23.5	59.6
B-01	18	2016-08-23	B-01-S-18-160823	**< 0.735**	3.62	52.9	< 0.245	8.55	2.79	6.36	2.53	1.04	1.83	11	38.4
SS-01	surface	2016-08-23	SS-01-160823	1.84	29	53	< 0.260	7.1	2.48	9.18	4.59	1.74	4.15	29.3	26.9
SS-02	0.83	2016-08-23	SS-02-160823	**< 0.777**	22.7	69.9	0.27	1.31	2.57	8.52	< 0.518	2.45	1.38	14.6	42.1
California: median background soil				0.47	12	520	1.2	69	12	22	21	0.85	27	94	150
Screening Level - USEPA 2016 Industrial Soil RSL				470	3	220,000	2,300	nl	350	47,000	800	5,800	22,000	5,800	350,000
Screening Level - USEPA 2016 Protection of Groundwater MCL-Based SSL				0.27	0.29	82	3.2	180,000	nl	46	14	nl	nl	nl	nl

Notes:
Soil samples were analyzed for CAM 17 Metals by Eurofins Calscience Environmental Laboratories, in Garden Grove, California.
Samples were analyzed using EPA Methods 6010B and 7471A. Only detected metals shown in this table. Other metals were not detected above the laboratory Minimum Reporting Limit.
Shaded cells represent an exceedance of one or more of the listed screening levels.
California median background soil derived from "Background Concentrations of Trace and Major Elements in California Soils", Kearny Foundation of Soil Science, March 1996
Arsenic median background soil value is the upper-bound background arsenic concentration from Chernoff, G., Bosan, W., Oudiz, D., 2008 "Determination of a Southern California Regional Background Arsenic Concentration in Soil", DTSC

ND <x.xx: Indicates sample result was less than laboratory minimum reporting limit.
ft bgs: Feet below ground surface
mg/kg: milligrams per kilogram
RSL: United States Environmental Protection Agency Regional Screening Level.
nl: not listed
J: Estimated concentration.
SSL: Soil screening level
ND<: Not detected above the listed laboratory minimum reporting limit.
Concentration is above screening level

Table 2

Historical Groundwater Levels and Well Construction Data

Crystal Geyser Roxane

Olancha, CA

Well ID	Location Coordinates		Top of Well Casing Elevation (ft amsl)	Screen Interval		Date	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
	Latitude	Longitude		TOS Depth (ft bgs)	BOS Depth (ft bgs)			
MW-01	36.3011461	-118.0207444	3643.80	18	33	7/6/2015	21.80	3622.00
						9/14/2015	22.71	3621.09
						12/9/2015	22.50	3621.30
						2/16/2016	22.02	3621.78
						6/28/2016	22.59	3621.21
						9/1/2016	23.48	3620.32
MW-02	36.3018132	-118.0199017	3638.21	10	25	7/6/2015	12.28	3625.93
						9/14/2015	18.43	3619.78
						12/9/2015	17.86	3620.35
						2/16/2016	17.31	3620.90
						6/28/2016	18.96	3619.25
						9/1/2016	19.33	3618.88
MW-03	36.3057165	-118.0186995	3618.26	5	20	7/6/2015	13.97	3604.29
						9/15/2015	15.02	3603.24
						12/8/2015	13.05	3605.21
						2/16/2016	11.77	3606.49
						6/29/2016	14.23	3604.03
						9/1/2016	15.48	3602.78
MW-04	36.3061799	-118.0177333	3615.22	5	20	7/6/2015	11.17	3604.05
						9/15/2015	11.94	3603.28
						12/8/2015	11.18	3604.04
						2/17/2016	9.90	3605.32
						6/28/2016	11.31	3603.91
						9/8/2016	12.24	3602.98
MW-05	36.3066296	-118.0165260	3608.33	5	20	7/6/2015	7.97	3600.36
						9/15/2015	8.47	3599.86
						12/8/2015	7.30	3601.03
						2/17/2016	6.28	3602.05
						6/29/2016	8.18	3600.15
						9/8/2016	9.21	3599.12
MW-06	36.3052343	-118.0149476	3615.33	8	23	7/6/2015	13.22	3602.11
						9/15/2015	13.04	3602.29
						12/8/2015	12.91	3602.42
						2/16/2016	12.36	3602.97
						6/29/2016	13.44	3601.89
						9/7/2016	13.80	3601.53
MW-07	36.3055453	-118.0142003	3610.16	5	20	7/6/2015	8.28	3601.88
						9/15/2015	7.98	3602.18
						12/8/2015	7.62	3602.54
						2/16/2016	7.49	3602.67
						6/29/2016	8.59	3601.57
						9/7/2016	8.88	3601.28
MW-08	36.3063264	-118.0185088	3617.28	5	20	7/6/2015	13.31	3603.97
						9/14/2015	13.95	3603.33
						12/8/2015	13.05	3604.23
						2/17/2016	11.65	3605.63
						6/28/2016	13.43	3603.85
						9/7/2016	14.32	3602.96
MW-09	36.3056073	-118.0178481	3620.04	9	24	7/6/2015	16.14	3603.90
						9/15/2015	17.34	3602.70
						12/9/2015	16.05	3603.99
						2/17/2016	14.41	3605.63
						6/29/2016	16.21	3603.83
						9/7/2016	17.76	3602.28

Table 2

Historical Groundwater Levels and Well Construction Data

Crystal Geyser Roxane

Olancha, CA

Well ID	Location Coordinates		Top of Well Casing Elevation (ft amsl)	Screen Interval		Date	Depth to Water (ft btoc)	Groundwater Elevation (ft amsl)
	Latitude	Longitude		TOS Depth (ft bgs)	BOS Depth (ft bgs)			
MW-10	36.3013840	-118.0197377	3640.44	11	26	8/30/2016	21.05	3619.39
MW-11	36.3076097	-118.0166167	3603.96	5	11	9/8/2016	10.02	3593.94
MW-12	36.3074198	-118.0138466	3599.07	5	7.5	9/6/2016	9.25	3589.82
MW-13	36.3058837	-118.0152627	3610.61	5	11.5	9/7/2016	9.45	3601.16
MW-14	36.3045843	-118.0159273	3620.50	7.5	15.5	9/6/2016	Dry	Dry
MW-15	36.3057670	-118.0186235	3618.62	43	48	9/1/2016	5.14	3613.48
OW-8US*	36.3075790	-118.0136696	3600.26	55	75	9/6/2016	artesian	3604.88
OW-8U**	36.3075812	-118.0136735	3600.00	190	230	Sept. 2016	artesian	3627.69

Notes:

Wellhead elevation and location survey completed by Triad/Holmes Associates, Inc.

Coordinate data in NAD 83 State Plane IV.

Elevation data in NAV 88.

ft btoc feet below top of casing

ft amsl feet above mean sea level

ft bgs feet below ground surface

TOS Top of screen

BOS Bottom of screen

* Pressure reading of the groundwater at surface at artesian well OW-8US was 2.0 pounds per square inch (psi)

** Pressure reading of the groundwater at surface at artesian well OW-8U was 12.0 psi

Table 3
Field Groundwater Quality Parameters 3Q16
Crystal Geyser Roxane
Olancha, CA

Boring ID	Temperature (°C)	Conductivity (µS/cm)	ORP (mV)	DO (mg/L)	pH	Turbidity (NTU)	Free Cl_2 ppm	Total Cl_2 ppm
MW-01	19.1	184.1	159.4	4.7	6.54	38	0.53	0.34
MW-02	18.9	230.8	-35.0	0.2	6.16	12	0.10	0.13
MW-03	19.0	273.6	-225.1	0.4	7.48	16	0.29	0.22
MW-04	20.8	1,693	71.3	5.0	9.78	30	0.00	0.00
MW-05	19.6	1,274	60.6	2.0	8.73	7	0.01	0.00
MW-06	21.5	1,335	-130.0	0.3	9.12	7	0.00	0.03
MW-07	20.9	593.0	-348.1	0.4	7.87	112	0.00	0.00
MW-08	18.8	333.0	-288.9	0.3	7.00	18	0.01	0.03
MW-09	17.8	1,093	-105.6	0.6	7.12	9	0.00	0.00
MW-10	16.5	131.0	2.9	0.3	7.10	4.0	NA	NA
MW-11	17.5	1,698	-86.2	0.6	6.91	14	0.01	0.02
MW-12	21.3	1,723	-248.7	0.4	8.99	20	0.00	0.00
MW-13	22.2	990	-204.6	0.9	8.59	7	0.01	0.00
MW-14	NA	NA	NA	NA	NA	NA	NA	NA
MW-15	18.8	310	-242.5	0.2	7.95	206	0.00	0.05
OW-8US	15.5	192.2	-224.8	0.1	8.28	0	0.04	0.10

Notes:
Field groundwater quality parameters measured with a YSI Pro Plus with Flow-thru Cell

ORP: Oxidation reduction potential
DO: Dissolved oxygen
Cl_2: chlorine
µS/cm: microsiemens per centimeter
°C: degrees centigrade
ppm: parts per million
mV: millivolts
mg/L: milligrams per liter
NTU: Nephelometric Turbidity Unit
NA: Not available

Table 4
Groundwater Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Location		Screen Interval (ft bgs)	Sample Depth (ft bgs)	Date Sampled	Sample ID	Antimony (dissolved) µg/l	Antimony (total) µg/l	Arsenic (dissolved) µg/l	Arsenic (total) µg/l	Barium (dissolved) µg/l	Barium (total) µg/l	Beryllium µg/l	Cadmium (total) µg/l	Chromium (dissolved) µg/l	Chromium (total) µg/l	Cobalt (dissolved) µg/l	Cobalt (total) µg/l	Copper (dissolved) µg/l	Copper (total) µg/l	Lead (dissolved) µg/l	Lead (total) µg/l
Monitoring Wells	MW-01	18 - 33	27	07/07/15	MW-01-070715	< 15.0	< 15.0	13.6	17.6	22.8	26.8	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			26	09/14/15	MW-01-091415	< 15.0	< 15.0	< 10.0	14.7	25.8	26.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			27	12/09/15	MW-01-120915	< 1.00	< 1.00	12.6	15.9	25.8	38.2	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.67	2.38	< 1.00	< 1.00
			27	02/16/16	MW-01-021616	< 1.00	< 1.00	12.1	13.8	25.9	56.7	< 1.00	< 1.00	1.14	1.58	< 1.00	1.10	< 1.10	< 5.17	< 1.00	1.11
			27	06/28/16	MW-01-062816	< 1.00	< 1.00	13.4	11.4	23.1	51.2	< 1.00	< 1.00	< 1.00	1.63	< 1.00	1.11	< 1.00	5.61	< 1.00	1.05
			27	09/01/16	MW-01-090116	< 1.00	< 1.00	9.56	11.3	21.7	37.7	< 1.00	< 1.00	< 1.00	1.32	< 1.00	< 1.00	1.20	3.61	< 1.00	< 1.00
	MW-02	10 - 25	19	07/07/15	MW-02-070715	< 15.0	< 15.0	23.3	21.0	19.6	20.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			20	09/14/15	MW-02-091415	< 15.0	< 15.0	< 10.0	< 10.0	19.6	19.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			19	12/09/15	MW-02-120915	< 1.00	< 1.00	12.6	11.8	34.3	35.4	< 1.00	< 1.00	< 1.00	< 1.00	1.22	1.36	< 1.00	< 1.00	< 1.00	< 1.00
			19	02/16/16	MW-02-021616	< 1.00	1.42	7.27	16.7	34.0	42.2	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.80	< 1.00	< 1.88	< 1.00	< 1.00
			19	06/28/16	MW-02-062816	4.77	8.91	5.92	101	30.4	144	< 1.00	< 1.00	< 1.00	11.6	4.04	16.5	< 1.00	30.1	< 1.00	9.90
			21	09/01/16	MW-02-090116	< 1.00	< 1.00	5.55	7.22	37.8	38.9	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.19	1.22	< 1.00	< 1.00
	MW-03	5 - 20	15	07/07/15	MW-03-070715	< 15.0	< 15.0	20.5	20.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			15	09/15/15	MW-03-091515	< 15.0	< 15.0	< 10.0	12.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			15	12/08/15	MW-03-120815	< 1.00	< 1.00	7.11	8.55	8.94	10.0	< 1.00	< 1.00	1.09	1.24	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
			15	02/16/16	MW-03-021616	< 1.00	1.42	4.81	5.14	6.88	11.8	< 1.00	< 1.00	< 1.00	1.22	< 1.00	< 1.00	< 1.00	< 1.97	< 1.00	< 1.00
			15	06/29/16	MW-03-062916	< 1.00	< 1.00	4.17	4.02	6.09	11.1	< 1.00	< 1.00	< 1.00	1.30	< 1.00	< 1.00	< 1.00	1.47 J+	< 1.00	< 1.00
			17	09/01/16	MW-03-090116	< 1.00	< 1.00	11.9	13.8	7.97	10.5	< 1.00	< 1.00	< 1.00	17.3	< 1.00	< 1.00	< 1.00	1.06	< 1.00	< 1.00
	MW-04	5 - 20	13	07/06/15	MW-04-070615	24.7 J	16.0 J	742	821	10.3 J	24.4	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	48.2	43.3	< 10.0	< 10.0
				07/06/15	MW-04-070615-DUP	20.3 J	< 15.0 J	757	816	< 10.0 J	23.8	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	36.1	41.8	< 10.0	< 10.0
				09/15/15	MW-04-091515	19.3	16.1	685	691	< 10.0	10.5	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	15.8	16.4	< 10.0	< 10.0
				09/15/15	MW-04-091515-DUP	20.5	15.8	630	670	< 10.0	10.6	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	14.2	15.3	< 10.0	< 10.0
				12/08/15	MW-04-120815	13.3	8.50	636	586	45.5 J	30.4 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	54.4 J	19.6 J	22.8 J	14.9 J
				12/08/15	MW-04-120815-DUP	12.2	8.29	609	582	41.4	31.7	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	50.2 J	19.5 J	21.3 J	14.6 J
				02/17/16	MW-04-021716	4.18	4.53	153	154	18.4	24.0	< 1.00	< 1.00	4.08 J	1.15 J	< 1.00	< 1.00	< 3.39	10.2	< 1.00	2.31
				02/17/16	MW-04-021716-DUP	4.18	4.43	159	152	18.9	24.5	< 1.00	< 1.00	< 1.00 J	1.21	< 1.00	< 1.00	< 2.98	10.2	< 1.00	2.28
				06/28/16	MW-04-062816	4.86 J	4.99 J	130	140	19.4	45.6 J	< 1.00	< 1.00	< 1.00	2.16 J	< 1.00	1.18 J	10.5 J	15.1 J	< 1.00	2.33 J
				06/28/16	MW-04-062816-DUP	3.30 J	3.37 J	132	135	16.4	21.4 J	< 1.00	< 1.00	< 1.00	< 1.00 J	< 1.00	< 1.00 J	6.50 J	7.81 J	< 1.00	1.07 J
				09/08/16	MW-04-090816	2.97	2.79	134	125	3.35	8.08	< 1.00	< 1.00	< 1.00	1.37	< 1.00	< 1.00	5.04	6.01	< 1.00	1.68
				09/08/16	MW-04-090816-DUP	3.02	2.95	134	127	3.25	8.63	< 1.00	< 1.00	< 1.00	1.44	< 1.00	< 1.00	4.77	6.05	< 1.00	1.70
	MW-05	5 - 20	13	07/07/15	MW-05-070715	< 15.0	< 15.0	707	730	14.3	17.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	50.5	47.3	< 10.0	< 10.0
				09/15/15	MW-05-091515	< 15.0	< 15.0	224	205	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
				12/08/15	MW-05-120815	1.21	1.27	130	141	8.45	9.01	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.26	1.42	< 1.00	< 1.00
				02/17/16	MW-05-021716	1.67	1.62	99.8	99.8	8.89	10.5	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.80 J	1.67 J	< 1.00	< 1.00
				06/29/16	MW-05-062916	4.68	4.63	274	281	9.74	15.8	< 1.00	< 1.00	< 1.00	1.28	< 1.00	< 1.00	10.1	12.9 J+	< 1.00	< 1.00
				09/08/16	MW-05-090816	3.34	3.34	191	181	5.13	6.61	< 1.00	< 1.00	< 1.00	1.07	< 1.00	< 1.00	4.99	6.43	< 1.00	< 1.00
	MW-06	8 - 23	17	07/06/15	MW-06-070615	< 15.0	< 15.0	17.1	18.3	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
				09/15/15	MW-06-091515	< 15.0	< 15.0	10.7	18.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
				12/08/15	MW-06-120815	< 1.00	< 1.00	11.6	12.4	4.75	4.63	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.86 J	1.33 J	< 1.00	< 1.00
				02/16/16	MW-06-021616	1.69	2.75	11.3	12.4	2.17	4.98	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 4.52	< 4.61	< 1.00	< 1.00
				06/29/16	MW-06-062916	< 1.00	< 1.00	11.9	11.6	13.8	10.3	< 1.00	< 1.00	1.24 J	< 1.00 J	< 1.00	< 1.00	1.70 J	< 1.00 J	< 1.00	< 1.00
				09/07/16	MW-06-090716	< 1.00	< 1.00	18.6	17.9	2.69	3.12	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	MW-07	5 - 20	13	07/06/15	MW-07-070615	< 15.0	< 15.0	47.9	48.3	< 10.0	14.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	37.2 J	16.2 J	< 10.0	< 10.0
			13	09/15/15	MW-07-091515	< 15.0	< 15.0	< 10.0	14.9	< 10.0	22.7	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			13	12/08/15	MW-07-120815	1.33	1.10	14.1	16.2	9.69	20.5 J	< 1.00	< 1.00	1.65 J	< 1.00 J	1.16 J	< 1.00 J	4.67	4.37	< 1.00	1.40
			13	02/16/16	MW-07-021616	1.90	2.76	17.6	17.6	3.51	52.3	< 1.00	< 1.00	< 1.00	4.12	< 1.00	2.69	< 3.10	10.2 J+	< 1.00	2.39
			15	06/29/16	MW-07-062916	< 1.00	1.13	11.9	14.9	2.88	90.7	< 1.00	< 1.00	< 1.00	7.56	< 1.00	3.50	1.66	13.7 J+	3.55	6.51
			15	09/07/16	MW-07-090716	1.43	1.76	17.0	16.9	5.07	32.9	< 1.00	< 1.00	< 1.00	2.14	< 1.00	1.14	1.77	5.21	< 1.00	1.25

Table 4
Groundwater Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Location		Screen Interval (ft bgs)	Sample Depth (ft bgs)	Date Sampled	Sample ID	Mercury µg/l	Molybdenum (dissolved) µg/l	Molybdenum (total) µg/l	Nickel (Dissolved) ug/l	Nickel (total) µg/l	Selenium (dissolved) µg/l	Selenium (total) µg/l	Silver (dissolved) µg/l	Silver (total) µg/l	Vanadium (dissolved) µg/l	Vanadium (total) µg/l	Zinc (dissolved) µg/l	Zinc (total) µg/l
Monitoring Wells	MW-01	18 - 33	27	07/07/15	MW-01-070715	< 0.50 J	11.0	11.9	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			26	09/14/15	MW-01-091415	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	10.9
			27	12/09/15	MW-01-120915	< 0.50	7.21	8.13	2.43 J	1.19 J	< 1.00	< 1.00	< 1.00	< 1.00	4.54	9.85	18.3	54.3
			27	02/16/16	MW-01-021616	< 0.50	7.11	7.70	< 1.00	1.80	< 1.00	< 1.00	< 1.00	< 1.00	6.82	15.3	< 5.00	6.91
			27	06/28/16	MW-01-062816	< 0.50	6.34	6.64	< 1.00	1.76	< 1.00	< 1.00	< 1.00	< 1.00	4.73	10.3	6.21	13.3
			27	09/01/16	MW-01-090116	< 0.50	4.40	4.99	< 1.00	1.59	< 1.00	< 1.00	< 1.00	< 1.00	2.73	6.56	7.83	17.8
	MW-02	10 - 25	19	07/07/15	MW-02-070715	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			20	09/14/15	MW-02-091415	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	15.9
			19	12/09/15	MW-02-120915	< 0.50	1.86	2.04	1.07	1.30	< 1.00	< 1.00	< 1.00	< 1.00	10.0	9.28	< 5.00	9.01
			19	02/16/16	MW-02-021616	< 0.50	2.15	2.55	1.76	1.90	< 1.00	< 1.00	< 1.00	< 1.00	6.28	22.1	6.25	24.7
			19	06/28/16	MW-02-062816	< 0.50	6.43	12.5	2.45	12.6	< 1.00	2.56	< 1.00	< 1.00	27.7	174	< 5.00	75.8
			21	09/01/16	MW-02-090116	< 0.50	1.64	1.66	1.59	1.61	< 1.00	< 1.00	< 1.00	< 1.00	1.67	4.43	8.46	10.7
	MW-03	5 - 20	15	07/07/15	MW-03-070715	< 0.50 J	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			15	09/15/15	MW-03-091515	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			15	12/08/15	MW-03-120815	< 0.50	4.19	4.48	1.03	1.58	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	7.62	8.55
			15	02/16/16	MW-03-021616	< 0.50	2.49	3.07	< 1.00	1.38	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3.63	11.1	10.7
			15	06/29/16	MW-03-062916	< 0.50	1.79	1.93	< 1.00	1.29	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.85	< 5.00	6.08
			17	09/01/16	MW-03-090116	< 0.50	12.0	13.3	1.18	7.46	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	14.5	12.2
	MW-04	5 - 20	13	07/06/15	MW-04-070615	< 0.50 J	430	476	< 10.0	< 10.0	< 15.0	< 15.0	6.80 J	< 5.00 J	217	249	< 10.0	24.9 J
				07/06/15	MW-04-070615-DUP	< 0.50 J	439	471	< 10.0	< 10.0	< 15.0	< 15.0	7.91 J	< 5.00 J	222	248	< 10.0	13.4 J
				09/15/15	MW-04-091515	< 0.50	389	364	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	189	193	< 10.0	37.3 J
				09/15/15	MW-04-091515-DUP	< 0.50	389	366	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	191	189	< 10.0	< 10.0 J
				12/08/15	MW-04-120815	< 0.50	446 J	303 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	194	143	34.6 J	< 25.0 J
				12/08/15	MW-04-120815-DUP	< 0.50	420	310	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	180	146	32.7 J	< 25.0 J
				02/17/16	MW-04-021716	< 0.50	106	104	4.77 J	1.36 J	< 1.00	< 1.00	< 1.00	< 1.00	39.2	49.6	11.1 J	17.8 J
				02/17/16	MW-04-021716-DUP	< 0.50	109	105	< 1.00 J	1.35	< 1.00	< 1.00	< 1.00	< 1.00	47.2	49.6	< 5.00 J	< 5.00 J
				06/28/16	MW-04-062816	< 0.50	119	125	< 1.00	2.27	< 1.00	< 1.00	< 1.00	< 1.00	35.1	40.9	18.6	32.1 J
				06/28/16	MW-04-062816-DUP	< 0.50	125	124	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	30.5	32.0	20.6 J	11.4 J
				09/08/16	MW-04-090816	< 0.50	143	136	1.20	1.36	< 1.00	< 1.00	< 1.00	< 1.00	29.6	30.2	8.26 J	32.0
				09/08/16	MW-04-090816-DUP	< 0.50	147	142	1.11	1.48	< 1.00	< 1.00	< 1.00	< 1.00	30.5	30.7	< 5.00 J	28.4
	MW-05	5 - 20	13	07/07/15	MW-05-070715	< 0.50 J	437	448	< 10.0	< 10.0	< 15.0	< 15.0	5.59 J	< 5.00 J	197	208	10.3	37.5
				09/15/15	MW-05-091515	< 0.50	204	190	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	28.1	28.4	< 10.0	89.3
				12/08/15	MW-05-120815	< 0.50	108	121	1.37	1.63	< 1.00	< 1.00	< 1.00	< 1.00	15.3	14.8	< 5.00	7.32
				02/17/16	MW-05-021716	< 0.50	98.7	101	3.00 J	1.75 J	< 1.00	< 1.00	< 1.00	< 1.00	11.6	10.9	13.7 J	8.12 J
				06/29/16	MW-05-062916	< 0.50	191	186	1.67	2.19	< 1.00	< 1.00	< 1.00	< 1.00	169	172	10.8	12.3
				09/08/16	MW-05-090816	< 0.50	124	121	1.29	1.52	< 1.00	< 1.00	< 1.00	< 1.00	68.0	64.0	< 5.00	19.4
	MW-06	8 - 23	17	07/06/15	MW-06-070615	< 0.50 J	10.4	10.4	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
				09/15/15	MW-06-091515	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	16.3	15.4	< 5.00	< 5.00	< 10.0	< 10.0	13.4	31.6
				12/08/15	MW-06-120815	< 0.50	5.58	5.13	1.42	1.08	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.51	6.51 J	< 5.00 J
				02/16/16	MW-06-021616	< 0.50	4.79	4.85	1.82 J	1.18 J	< 1.00	< 1.00	< 1.00	< 1.00	4.64	5.43	6.37	5.73
				06/29/16	MW-06-062916	< 0.50	6.79	6.87	2.54	2.40	< 1.00	< 1.00	< 1.00	< 1.00	1.13	< 1.00	6.68	13.5
				09/07/16	MW-06-090716	< 0.50	9.77	9.14	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3.30	3.30	< 5.00	< 5.00
	MW-07	5 - 20	13	07/06/15	MW-07-070615	< 0.50 J	29.3	30.1	< 10.0	10.5 J+	< 15.0	< 15.0	< 5.00	< 5.00	19.7	21.8 J+	< 10.0	22.6 J+
			13	09/15/15	MW-07-091515	< 0.50	< 10.0	13.4	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	25.3
			13	12/08/15	MW-07-120815	< 0.50	10.5	9.93	4.30 J	3.11 J	< 1.00	< 1.00	< 1.00	< 1.00	3.94 J	2.69 J	30.3 J	19.7 J
			13	02/16/16	MW-07-021616	< 0.50	9.01	7.96	3.51	5.91	< 1.00	< 1.00	< 1.00	< 1.00	2.27	15.8	< 5.00	23.8
			15	06/29/16	MW-07-062916	< 0.50	8.78	8.08	1.89	7.23	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	13.4	20.6	24.3
			15	09/07/16	MW-07-090716	< 0.50	16.8	15.7	1.90	3.27	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	4.65	10.1	22.5

Table 4
Groundwater Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Location		Screen Interval (ft bgs)	Sample Depth (ft bgs)	Date Sampled	Sample ID	Antimony (dissolved) µg/l	Antimony (total) µg/l	Arsenic (dissolved) µg/l	Arsenic (total) µg/l	Barium (dissolved) µg/l	Barium (total) µg/l	Beryllium µg/l	Cadmium (total) µg/l	Chromium (dissolved) µg/l	Chromium (total) µg/l	Cobalt (dissolved) µg/l	Cobalt (total) µg/l	Copper (dissolved) µg/l	Copper (total) µg/l	Lead (dissolved) µg/l	Lead (total) µg/l
Monitoring Wells	MW-08	5 - 20	15	07/07/15	MW-08-070715	< 15.0	< 15.0	< 10.0	11.2	22.6	26.9	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			17	09/14/15	MW-08-091415	< 15.0	< 15.0	14.0	15.8	28.6	29.6	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			15	12/08/15	MW-08-120815	< 1.00	< 1.00	7.04	8.54	31.2	31.4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
			15	02/17/16	MW-08-021716	< 1.00	< 1.00	5.14	4.87	27.2	31.1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.55	< 1.00	< 1.00	< 1.00
			15	06/28/16	MW-08-062816	< 1.00	< 1.00	9.40	9.63	31.2	37.4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
			15	09/07/16	MW-08-090716	< 1.00	< 1.00	11.3	10.7	29.1	31.6	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	MW-09	9 - 24	18	07/07/15	MW-09-070715	< 15.0	< 15.0	47.2	50.6	44.2	43.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			19	09/15/15	MW-09-091515	< 15.0	< 15.0	49.0	50.9	50.5	49.4	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
			18	12/09/15	MW-09-120915	2.81	2.44	68.4	73.4	10.1	9.05	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	9.03	7.86	< 1.00	< 1.00
			18	02/17/16	MW-09-021716	< 1.00	< 1.00	24.4	24.8	5.56	8.36	< 1.00	< 1.00	1.19 J	< 1.00 J	< 1.00	< 1.00	< 3.04	7.66	< 1.00	< 1.00
			18	06/29/16	MW-09-062916	1.79	1.87	44.6	43.0	38.6	39.9	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3.28	3.31 J+	< 1.00	< 1.00
			20	09/07/16	MW-09-090716	1.99	2.02	54.5	58.2	43.8	47.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	4.22	4.59	< 1.00	< 1.00
	MW-10	11 - 26	22	10/06/16	MW-10-100616	< 1.00	< 1.00	11.3	10.8	4.02	3.79	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	MW-11	5 - 11	9	09/08/16	MW-11-090816	< 1.00	< 1.00	56.0	58.4	14.8	17.9	< 1.00	< 1.00	< 1.00	1.43	< 1.00	< 1.00	2.86	6.41	< 1.00	1.12
	MW-12	5 - 7.5	7	09/06/16	MW-12-090616	1.56	1.44	95.6	83.7	1.99	3.22	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.09	< 1.00	< 1.00
	MW-13	5 - 11.5	9	09/07/16	MW-13-090716	< 1.00	< 1.00	8.76	8.27	3.32	3.51	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
	MW-14	7.5 - 15.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW-15	43 - 48	45.5	09/01/16	MW-15-090116	< 1.00	< 1.00	23.2	29.0	16.9	35.9	< 1.00	< 1.00	< 1.00	2.52	< 1.00	1.10	< 1.00	4.24	< 1.00	1.18
	OW-8US	55 - 75	artesian	09/06/16	OW-8US-090616	< 1.00	< 1.00	5.73	5.65	2.09	2.12	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
				09/06/16	OW-8US-090616-DUP	< 1.00	< 1.00	5.88	5.87	1.98	2.12	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Grab samples	B-02	--	12.25	08/23/16	B-02-W-12.25-160823	< 15.0	< 15.0	363	402	< 10.0	713	< 10.0	< 10.0	< 10.0	158	< 10.0	48.0	< 10.0	201	< 10.0	134
			15.5	08/23/16	B-02-W-15.5-160823	< 15.0 J	< 15.0	39.1	158	29.8	2,910	13.5	< 10.0	< 10.0	613	< 10.0	112	< 10.0	1,890	< 10.0	214
			15.5	08/23/16	B-02-W-15.5-160823-DUP	20.9 J	< 15.0	45.5	142	30.1	2,830	13.0	< 10.0	< 10.0	589	< 10.0	102	< 10.0	1,850	< 10.0	204
			23	08/23/16	B-02-W-23-160823	< 15.0	< 15.0	13.3	31.6	10.7	1,060	< 10.0	< 10.0	< 10.0	242	< 10.0	47.6	< 10.0	576	< 10.0	46.0
			25.5	08/23/16	B-02-W-25.5-160823	41.2	< 15.0	119	171	24.1	1,500	< 10.0	15.1	< 10.0	281	< 10.0	31.6	< 10.0	130	< 10.0	161
	MW-12	--	8	08/29/16	MW-12-W-8-160829	1.38	< 10.0	55.1	180	23.8	2,320	< 10.0	14.1	1.03	148	< 1.00	66.4	< 1.00	803	< 1.00	133
			11.5	08/29/16	MW-12-W-11.5-160829	6.32	< 10.0	111	282	35.1	5,270	10.8	21.8	< 1.00	277	< 1.00	201	< 1.00	1,770	< 1.00	444
	MW-13	--	12.5	08/29/16	MW-13-W-12.5-160829	< 1.00	< 10.0	27.4	57.6	11.2	290	< 10.0	< 10.0	< 1.00	24.8	< 1.00	10.9	< 1.00	178	< 1.00	32.5
	MW-14	--	18.5	08/30/16	MW-14-W-18.5-160830	11.6	24.9	28.3	69.2	31.4	2,580	< 10.0	< 10.0	< 1.00	< 10.0	< 1.00	20.1	1.10	15.4	< 1.00	< 10.0
	MW-15	--	14	08/30/16	MW-15-W-14-160830	10.2 J	< 10.0 J	201	1,230	39.0	3,040	12.1	< 10.0	< 2.00	472	< 2.00	130	< 2.00	601	< 2.00	321
			24	08/30/16	MW-15-W-24-160830	5.08	< 10.0	62.9	404	23.0	1,380	< 10.0	< 10.0	< 1.00	469	< 1.00	65.0	1.31	331	< 1.00	88.9
California Maximum Contaminant Level						6	6	10	10	1,000	1,000	4	5	50	50	nl	nl	1,300	1,300	15	15

Table 4
Groundwater Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Location		Screen Interval (ft bgs)	Sample Depth (ft bgs)	Date Sampled	Sample ID	Mercury µg/l	Molybdenum (dissolved) µg/l	Molybdenum (total) µg/l	Nickel (Dissolved) ug/l	Nickel (total) µg/l	Selenium (dissolved) µg/l	Selenium (total) µg/l	Silver (dissolved) µg/l	Silver (total) µg/l	Vanadium (dissolved) µg/l	Vanadium (total) µg/l	Zinc (dissolved) µg/l	Zinc (total) µg/l
Monitoring Wells	MW-08	5 - 20	15	07/07/15	MW-08-070715	< 0.50 J	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	13.6 J	< 10.0 J
			17	09/14/15	MW-08-091415	< 0.50	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			15	12/08/15	MW-08-120815	< 0.50	6.32	6.39	1.21 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	9.58	7.58
			15	02/17/16	MW-08-021716	< 0.50	5.19	5.42	2.15 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.49	17.2 J	12.6 J
			15	06/28/16	MW-08-062816	< 0.50	6.62	6.37	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	7.40	7.31
			15	09/07/16	MW-08-090716	< 0.50	6.84	7.69	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	7.37
	MW-09	9 - 24	18	07/07/15	MW-09-070715	< 0.50	77.4	87.8	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
			19	09/15/15	MW-09-091515	< 0.50	97.1	91.3	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	16.8	18.1
			18	12/09/15	MW-09-120915	< 0.50	12.6	11.5	1.73 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	16.8	21.7	12.2	13.9
			18	02/17/16	MW-09-021716	< 0.50	7.46	7.57	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.31	4.00	< 5.00	9.46
			18	06/29/16	MW-09-062916	< 0.50	67.7	68.2	3.47	3.46	< 1.00	< 1.00	< 1.00	< 1.00	4.23	4.62	7.02	< 5.00
			20	09/07/16	MW-09-090716	< 0.50	86.4	86.4	2.53	3.00	< 1.00	< 1.00	< 1.00	< 1.00	5.21	5.72	6.62	8.29
	MW-10	11 - 26	22	10/06/16	MW-10-100616	< 0.50	1.32	1.21	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	10.7	9.33
	MW-11	5 - 11	9	09/08/16	MW-11-090816	< 0.50	62.0	62.8	2.40	2.92	< 1.00	< 1.00	< 1.00	< 1.00	2.61	5.11	5.46	27.7
	MW-12	5 - 7.5	7	09/06/16	MW-12-090616	< 0.50	20.6	18.2	2.37	2.58	< 1.00	< 1.00	< 1.00	< 1.00	3.10	3.85	10.4	28.4
	MW-13	5 - 11.5	9	09/07/16	MW-13-090716	< 0.50	11.1	10.6	1.25	1.21	< 1.00	< 1.00	< 1.00	< 1.00	6.59	5.76	6.42	11.8
	MW-14	7.5 - 15.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW-15	43 - 48	45.5	09/01/16	MW-15-090116	< 0.50	16.8	19.7	1.40	2.72	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	5.35	< 5.00	16.5
	OW-8US	55 - 75	artesian	09/06/16	OW-8US-090616	< 0.50	2.12	2.04	< 1.00	< 1.00	< 1.00 J	1.32	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 5.00
				09/06/16	OW-8US-090616-DUP	< 0.50	2.12	1.91	< 1.00	< 1.00	1.32 J	1.16	< 1.00	< 1.00	< 1.00	< 1.00	< 5.00	< 5.00
Grab samples	B-02	--	12.25	08/23/16	B-02-W-12.25-160823	< 0.50	308	191	< 10.0	53.9	< 15.0	< 15.0	< 5.00	< 5.00	66.5	456	14.6	649
			15.5	08/23/16	B-02-W-15.5-160823	4.01	38.2	57.7	< 10.0	638	< 15.0	< 15.0	< 5.00	< 5.00	25.5 J	660	12.0 J	1,490
			15.5	08/23/16	B-02-W-15.5-160823-DUP	3.96 J	44.8	50.2	< 10.0	598	< 15.0	< 15.0	< 5.00	< 5.00	43.2 J	606	17.7 J	1,350
			23	08/23/16	B-02-W-23-160823	1.07	50.9	30.8	< 10.0	117	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	214	< 10.0	495
			25.5	08/23/16	B-02-W-25.5-160823	< 0.50	87.3	26.5	< 10.0	148	< 15.0	< 15.0	< 5.00	< 5.00	22.3	325	12.6	517
	MW-12	--	8	08/29/16	MW-12-W-8-160829	< 0.50	29.0	43.8	1.75	175	< 1.00	< 10.0	< 1.00	< 10.0	4.05	257	39.5	478
			11.5	08/29/16	MW-12-W-11.5-160829	< 0.50	35.1	75.2	2.06	394	< 1.00	< 10.0	< 1.00	< 10.0	5.53	407	28.2	1,600
	MW-13	--	12.5	08/29/16	MW-13-W-12.5-160829	< 0.50	22.4	25.2	1.48	25.4	< 1.00	< 10.0	< 1.00	< 10.0	< 1.00	55.2	25.3	136
	MW-14	--	18.5	08/30/16	MW-14-W-18.5-160830	1.17	56.6 J	29.5 J	< 1.00	103	< 1.00	< 10.0	< 1.00	< 10.0	5.53	< 10.0	12.5	< 50.0
	MW-15	--	14	08/30/16	MW-15-W-14-160830	< 0.50	88.7	148	< 2.00	329	< 2.00	< 10.0	< 2.00	< 10.0	32.7	348	19.7	1,940
			24	08/30/16	MW-15-W-24-160830	< 0.50	54.1	73.1	1.07	246	< 1.00	< 10.0	< 1.00	< 10.0	14.8	295	11.1	777
California Maximum Contaminant Level						0.63	nl	nl	100	100	50	50	nl	nl	nl	nl	nl	nl

Notes:
Groundwater samples were analyzed for CAM 17 Metals by Eurofins Calscience Environmental Laboratories, in Garden Grove, California.
Samples were analyzed using EPA Methods 6010B and 7470A. Only detected metals shown in this table. Other metals were not detected above the laboratory Minimum Reporting Limit.
Shaded cells represent an exceedance of the listed maximum contaminant level.

<x.xx: Indicates sample result was less than laboratory minimum reporting limit.
ft bgs: Feet below ground surface
µg/l: micrograms per liter
nl: not listed
J: Estimated concentration.
J+: Estimated concentration biased high based on data validation
Concentration is above MCL

Table 5
Groundwater Sample Results - General Minerals
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Alkalinity, Total mg/l	Ammonia Nitrogen mg/l	Bicarbonate (as CaCO3) mg/l	Calcium mg/l	Chloride mg/l	Magnesium mg/l	MBAS mg/l	Nitrate and Nitrite mg/l	Nitrogen, Total (Calculated) mg/l	Nitrogen, Total Kjeldahl mg/l	Phosphate mg/l	Phosphorus, Total as P mg/l	Sodium mg/l	Sulfate mg/l	Total Dissolved Solids mg/l
MW-01	07/07/15	MW-01-070715	114 J	< 0.10 J	NA	37.7	3.1 J	3.63	< 0.10 J	0.55 J	0.54 J	< 0.500 J	< 0.31 J	< 0.10 J	21.8	26 J	230 J
	09/14/15	MW-01-091415	123	< 0.10	NA	30.2	2.6	2.87	< 0.10	0.29	< 0.50	< 0.500	0.42	0.14	17.6	18	130
	12/09/15	MW-01-120915	79	< 0.10	79	21.6	2.2	2.22	< 0.10	0.41 J+	< 0.50	< 0.500	0.67	0.22	15.2	14	105
	02/16/16	MW-01-021616	77	< 0.10	77	25.1	2.1	2.99	0.16	0.4	< 0.50	< 0.500	0.47	0.15	15.9	16	175
	06/28/16	MW-01-062816	72	< 0.10	72	22.8	2.1	2.97	< 0.10	0.33	< 0.50	< 0.500	0.32 J-	0.10 J-	16	17	165
	09/01/16	MW-01-090116	62	< 0.10	62	19.8	1.9	2.28	< 0.10	0.24	1	0.84 J	0.49	0.16	13.2	13	105
MW-02	07/07/15	MW-02-070715	72	< 0.10	NA	23.1	2	2.54	< 0.10	< 0.10	< 0.50	< 0.500	< 0.31	< 0.10	9.42	12	160
	09/14/15	MW-02-091415	64	0.11	NA	21.1	1.5	1.96	< 0.10	< 0.10	< 0.50	< 0.500	0.37	0.12	8.68	9.2	125
	12/09/15	MW-02-120915	78	< 0.10	78	28.9	2.9	2.76	< 0.10	< 0.13	< 0.50	< 0.500	0.43	0.14	10.3	25	145
	02/16/16	MW-02-021616	76	< 0.10	76	30	2.8	2.89	0.24	< 0.10	< 0.50	< 0.500	< 0.31	< 0.10	10	23	162
	06/28/16	MW-02-062816	72	< 0.10	72	27.9	2.5	2.49	< 0.10	< 0.10	< 0.50	< 0.500	0.47	0.15	10.3	21	175
	09/01/16	MW-02-090116	76	< 0.10	76	29.2	2.7	2.61	< 0.10	< 0.10	0.98	0.98 J	0.76	0.25	9.81	23	125
MW-03	07/07/15	MW-03-070715	120 J	0.56 J	NA	20.9	9.7 J	5.19	< 0.10 J	< 0.10 J	1.1 J	1.10 J	0.94 J	0.31 J	41.3	12 J	245 J
	09/15/15	MW-03-091515	120	1.1	NA	21.9	5.9	3.22	< 0.10	< 0.10	1.5 J+	1.50 J+	1.1	0.35	32.5	8	190
	12/08/15	MW-03-120815	92	1	92	56.2	6.5	5.62	0.14	0.62 J+	1.9	1.3	0.76	0.25	40.3	140	320
	02/16/16	MW-03-021616	100	0.87	100	30.8	6.4	6.46	< 0.10 J	< 0.10	1.9	1.8	0.54	0.18	78.8	39	235
	06/29/16	MW-03-062916	114	1	114	21.6	5.2	3.12	0.28 J+	< 0.10	1.1	1.1	0.47 J-	0.15 J-	30.6	3.1	180
	09/01/16	MW-03-090116	117	0.87	117	22.4	4.6 J-	2.99	< 0.10	< 0.10	1.4	1.4 J	1.3	0.44	31.7	14	165
MW-04	07/06/15	MW-04-070615	916 J	0.11 J	NA	7.4	20 J	1.1	< 0.10 J	0.23 J	1.6 J	1.40 J	4.8 J	1.6 J	934	880 J	2,340 J
	07/06/15	MW-04-070615-DUP	916 J	0.11 J	NA	7.34	16 J	1.1	< 0.10 J	0.23 J	1.6 J	1.40 J	4.9 J	1.6 J	909	890 J	2,360 J
	09/15/15	MW-04-091515	841	< 0.10 J	NA	2.33	8.5	0.295	< 0.10	0.38	1.1 J+	0.700 J+	7.2	2.4	823	840	1,780
	09/15/15	MW-04-091515-DUP	841	0.11 J	NA	2.27	8.6	0.29	< 0.10	0.38	1.4 J+	0.980 J+	7.2	2.4	798	840	2,040
	12/08/15	MW-04-120815	534	0.17	182	5.26	< 10	0.41	0.1	< 0.10	2	2	4.6	1.5	672	610	1,720
	12/08/15	MW-04-120815-DUP	528	0.22	192	5.17	< 10	0.388	0.1	< 0.10	2.5	2.5	4.7	1.5	663	610	1,640
	02/17/16	MW-04-021716	308	< 0.11	132	12.7	14	0.682	0.10 J-	0.27	0.91	0.63	1.2	0.38	272	250	800
	02/17/16	MW-04-021716-DUP	306	< 0.11	130	12.3	14	0.676	0.12 J-	0.26	0.96	0.7	1.2	0.41	264	240	770
	06/28/16	MW-04-062816	260	< 0.10	78	12.8 J	6.5	1.29 J	0.12 J-	0.37	< 0.50	< 0.500	1.1	0.35	334	390	970
	06/28/16	MW-04-062816-DUP	262	< 0.10	76	7.79 J	6.4	0.434 J	< 0.10 J	0.34	< 0.50	< 0.500	1.2	0.4	316	400	970
	09/08/16	MW-04-090816	337	< 0.10	189	< 1.93	6.9	0.353	< 0.10	0.43	0.91	0.91 J	1.6	0.53	379	380	975
	09/08/16	MW-04-090816-DUP	327	< 0.10	195	< 1.97	6.9	0.37	< 0.10	0.38	0.84	0.84 J	1.6	0.53	383	400	1,050
MW-05	07/07/15	MW-05-070715	556 J	0.39 J	NA	16.3	19 J	2.37	0.11 J	< 0.10 J	1.8 J	1.80 J	4.9 J	1.6 J	716	830 J	1,960 J
	09/15/15	MW-05-091515	251	0.34	NA	24.9	15	2.3	< 0.10	< 0.10	1.1 J+	1.10 J+	1.8	0.59	267	410	830
	12/08/15	MW-05-120815	164	0.22	164	47.9	72	4.16	0.13	< 0.22	< 0.50	< 0.500	0.62	0.2	158	210	535
	02/17/16	MW-05-021716	162	0.22 J+	162	46.4	71	3.8	0.15 J-	< 0.10	0.67	0.63	0.54	0.18	142	180	565
	06/29/16	MW-05-062916	282	< 0.10	230	29.4	10	2.1	0.19 J+	0.32	1.2	0.84	1.1	0.37	339	480	1,080
	09/08/16	MW-05-090816	266	0.17	260	19 J+	10	1.47	< 0.10	0.14	< 0.50	< 0.500 J	1.5	0.5	258	300	780
MW-06	07/06/15	MW-06-070615	180 J	0.17 J	NA	48.5	190 J	8.91	< 0.10 J	< 0.10 J	0.86 J	0.840 J	1.5 J	0.49 J	192	48 J	635 J
	09/15/15	MW-06-091515	153	0.11	NA	53	290	7.14	< 0.10	< 0.10	0.70 J+	0.700 J+	0.84	0.27	185	35	605
	12/08/15	MW-06-120815	139	< 0.10	139	58.3	330	7.4	< 0.10	0.15	0.97	0.7	1.7	0.54	249	33	750
	02/16/16	MW-06-021616	121	< 0.10	121	34.8	89 J+	3.92	0.25	0.12	< 0.50	< 0.500	1.7	0.54	71.9	33	355
	06/29/16	MW-06-062916	156	0.17	156	92.9	620	10.6	0.24 J+	< 0.10	0.79	0.7	1.4	0.45	349	33	1,480
	09/07/16	MW-06-090716	178	0.17	138	16.1	330	1.86	< 0.10	< 0.10	< 0.50	< 0.500 J	1.1	0.36	272	37	755

Table 5
Groundwater Sample Results - General Minerals
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Alkalinity, Total mg/l	Ammonia Nitrogen mg/l	Bicarbonate (as CaCO3) mg/l	Calcium mg/l	Chloride mg/l	Magnesium mg/l	MBAS mg/l	Nitrate and Nitrite mg/l	Nitrogen, Total (Calculated) mg/l	Nitrogen, Total Kjeldahl mg/l	Phosphate mg/l	Phosphorus, Total as P mg/l	Sodium mg/l	Sulfate mg/l	Total Dissolved Solids mg/l
MW-07	07/06/15	MW-07-070615	248 J	< 0.10 J	NA	6.56	72 J	1.69	< 0.10 J	< 0.10 J	1.3 J	1.30 J	1.8 J	0.58 J	145	58 J	1,040 J
	09/15/15	MW-07-091515	190	< 0.10	NA	14.5	37	3.91	< 0.10	< 0.10	0.70 J+	0.700 J+	1.6	0.51	113	45	455
	12/08/15	MW-07-120815	160	< 0.10	160	10.8	28	1.75	0.3	< 0.10	0.84	0.84	2.5	0.83	94.4	36	385
	02/16/16	MW-07-021616	156	< 0.10	156	26.4	24	3.27	< 0.10 J	< 0.10	0.7	0.63	2	0.65	31.5	33	305
	06/29/16	MW-07-062916	153	< 0.10	153	56.8	42	7.87	0.79 J+	< 0.10	0.76	0.7	0.62	0.2	78.9	34	305
	09/07/16	MW-07-090716	148	0.14	148	22.6	56	2.85	0.38	< 0.10	0.63	0.63 J	1.3	0.42	86.8	60	320
MW-08	07/07/15	MW-08-070715	120 J	0.39 J	NA	22.3	4.3 J	1.49	< 0.10 J	< 0.10 J	0.84 J	0.840 J	0.43 J	0.14 J	30.8	4.2 J	205 J
	09/14/15	MW-08-091415	118	0.39	NA	23	4.9	1.5	< 0.10	< 0.10	0.7	0.7	0.58	0.19	32	5.4	230
	12/08/15	MW-08-120815	114	0.45	114	20.5	4.8	1.58	0.12	1.9 J+	3	1	0.75	0.25	30.1	4.4	255
	02/17/16	MW-08-021716	116	0.48 J+	116	21.4	5	1.73	< 0.10	< 0.10	0.81	0.77	0.5	0.16	28.1	3.3	145
	06/28/16	MW-08-062816	116	0.45	116	22.3	4.1	1.6	< 0.10 J	< 0.10	2.9	2.9	0.37	0.12	30.7	4.4	205
	09/07/16	MW-08-090716	112	0.45	112	21.5 J	4.1	1.59	< 0.10	< 0.10	0.56	0.56 J	0.6	0.19	30.2	5.2	175
MW-09	07/07/15	MW-09-070715	174	< 0.10	NA	154	6.8	7.11	< 0.10	0.28	0.79	0.56	0.44	0.14	75.3	360	730
	09/15/15	MW-09-091515	156	0.11	NA	151	6.6	6.83	< 0.10	0.33	0.98 J+	0.700 J+	0.49	0.16	88.8	400	745
	12/09/15	MW-09-120915	136	< 0.10	136	15.1	6.9	0.8	< 0.10	< 0.17	< 0.50	< 0.500	1.2	0.39	70.9	39	305
	02/17/16	MW-09-021716	138	< 0.10	122	9.65	6.7	0.586	0.11	< 0.10	< 0.50	< 0.500	0.65	0.21	62	19	215
	06/29/16	MW-09-062916	175	< 0.10	175	125	5.9	6.04	0.20 J-	0.26	0.78	0.56	< 0.31	< 0.10	68.5	310	690
	09/07/16	MW-09-090716	154	< 0.10	154	119	6.4	5.84	< 0.10 J	0.33	0.85	0.56 J	1.1	0.37	81.2	350 J+	665
MW-10	10/06/16	MW-10-100616	65	0.25	65	18.3	< 1.0	1.30	< 0.10	< 0.10	0.63	0.630 J	0.36	0.12	6.24	< 1.0	105
MW-11	09/08/16	MW-11-090816	414	0.22	414	66.9	19	5.89	< 0.10	< 0.10	0.98	0.98 J	0.93	0.3	328	390	1,100
MW-12	09/06/16	MW-12-090616	678	0.31	590	2.71	91	3.06	< 0.10	< 0.10	1	1 J	2.1	0.68	379	45	1,060
MW-13	09/07/16	MW-13-090716	129	0.17	105	36.9	170	3.67	< 0.10 J	< 0.10	0.56	0.56 J	1.5	0.5	135	42	475
MW-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-15	09/01/16	MW-15-090116	120	< 0.10	120	42.5	5.7	2.46	< 0.10	< 0.10	< 0.10	< 0.500 J	0.54	0.18	34.5	26	180
OW-8US	09/06/16	OW-8US-090616	82	1.3	82	12.1	3.7	2.37	< 0.10	< 0.10	2.4	2.4 J	0.42	0.14	18	7.3	110
	09/06/16	OW-8US-090616-DUP	69	1.3	69	12.1	3.7	2.34	< 0.10	< 0.10	1.7	1.7 J	0.42	0.14	17.6	7	105
Secondary Maximum Contaminant Level			nl	nl	nl	nl	250	nl	0.5	10	nl	nl	nl	nl	nl	250	500

Notes:

Groundwater samples were analyzed by Eurofins Calscience Environmental Laboratories, in Garden Grove, California. Only detected compounds shown.

<x.xx: Indicates sample result was less than laboratory minimum reporting limit.
mg/l: milligrams per liter
RSL: United States Environmental Protection Agency Regional Screening Level.
MBAS: Methylene Blue Activated Substances
NA: Not Analyzed
nl: not listed
J: Estimated concentration
J+: Estimated concentration biased high based on data validation
J-: Estimated concentration biased low based on data validation
Concentration is above secondary MCL

Table 6

Groundwater Sample Results - Total and Fecal Coliform

Crystal Geyser Roxane

Olancha, CA

Location	Date Sampled	Sample ID	Fecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
MW-01	07/07/15	MW-01-070715	< 2.0 R	2.0 J
	09/14/15	MW-01-091415	< 2.0	< 2.0
	12/09/15	MW-01-120915	< 1.8	< 1.8
	02/16/16	MW-01-021616	< 1.8	< 1.8
	06/28/16	MW-01-062816	< 1.8	< 1.8
	09/01/16	MW-01-090116	< 1.8	< 1.8
MW-02	07/07/15	MW-02-070715	< 2.0 R	< 2.0 R
	09/14/15	MW-02-091415	< 2.0	30
	12/09/15	MW-02-120915	< 1.8	< 1.8
	02/16/16	MW-02-021616	< 1.8	< 1.8
	06/28/16	MW-02-062816	< 1.8	< 1.8
	09/01/16	MW-01-090116	< 1.8	< 1.8
MW-03	07/07/15	MW-03-070715	< 2.0 R	2.0 J
	09/15/15	MW-03-091515	< 2.0	23
	12/09/15	MW-03-120915	< 1.8	< 1.8
	02/16/16	MW-03-021616	< 1.8	< 1.8
	06/29/16	MW-03-062916	< 1.8	< 1.8
	09/01/16	MW-03-090116	< 1.8	< 1.8
MW-04	07/07/15	MW-04-070715	< 2.0 R	< 2.0 R
	09/15/15	MW-04-091515	< 2.0	< 2.0
	09/15/15	MW-04-091515-DUP	< 2.0	< 2.0
	12/08/15	MW-04-120815	< 1.8	< 1.8
	12/08/15	MW-04-120815-DUP	< 1.8	< 1.8
	02/17/16	MW-04-021716	< 1.8	< 1.8
	02/17/16	MW-04-021716-DUP	< 1.8	< 1.8
	06/29/16	MW-04-062916	< 1.8	2.0 J
	06/29/16	MW-04-062916-DUP	< 1.8	< 1.8 J
	09/08/16	MW-04-090816	< 1.8	< 1.8
	09/08/16	MW-04-090816-DUP	< 1.8	< 1.8
MW-05	07/07/15	MW-05-070715	< 2.0 R	2.0 J
	09/15/15	MW-05-091515	< 2.0	< 2.0
	12/08/15	MW-05-120815	< 1.8	< 1.8
	02/17/16	MW-05-021716	< 1.8	2.0
	06/29/16	MW-05-062916	< 1.8	< 1.8
	09/08/16	MW-05-090816	< 1.8	< 1.8
MW-06	07/07/15	MW-06-070715	< 2.0 R	< 2.0 R
	09/15/15	MW-06-091515	< 2.0	< 2.0
	12/08/15	MW-06-120815	< 1.8	< 1.8
	02/16/16	MW-06-021616	< 1.8	< 1.8
	06/29/16	MW-06-062916	< 1.8	< 1.8
	09/07/16	MW-06-090716	< 1.8	< 1.8
MW-07	07/06/15	MW-07-070615	2.0 J	2.0 J
	09/15/15	MW-07-091515	< 2.0	23
	12/08/15	MW-07-120815	< 1.8	< 1.8
	02/16/16	MW-07-021616	< 1.8	< 1.8
	06/29/16	MW-07-062916	< 1.8	< 1.8
	09/07/16	MW-07-090716	4.5	4.5
MW-08	07/07/15	MW-08-070715	< 2.0 R	2.0 J
	09/14/15	MW-08-091415	< 2.0	2.0
	12/08/15	MW-08-120815	< 1.8	< 1.8
	02/17/16	MW-08-021716	< 1.8	< 1.8
	06/29/16	MW-08-062916	< 1.8	< 1.8
	09/08/16	MW-08-090816	< 1.8	< 1.8
MW-09	07/07/15	MW-09-070715	< 2.0 R	< 2.0 R
	09/15/15	MW-09-091515	8.0	8.0
	12/09/15	MW-09-120915	< 1.8	< 1.8
	02/17/16	MW-09-021716	< 1.8	< 1.8
	06/29/16	MW-09-062916	< 1.8	13
	09/07/16	MW-09-190716	< 1.8	23

Table 6

Groundwater Sample Results - Total and Fecal Coliform

Crystal Geyser Roxane

Olancha, CA

Location	Date Sampled	Sample ID	Fecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
MW-10	10/06/16	MW-10-100616	< 1.8	< 1.8
MW-11	09/08/16	MW-11-090816	< 1.8	< 1.8
MW-12	09/07/16	MW-12-090716	< 1.8	< 1.8
MW-13	09/07/16	MW-13-090716	< 1.8	2.0
MW-14	NA	NA	NA	NA
MW-15	09/16/16	MW-15-091616	2.0	2.0
OW-8US	09/07/16	OW-8US-090716	< 1.8	< 1.8
	09/07/16	OW-8US-090716-DUP	< 1.8	< 1.8

Notes:

Samples analyzed by BC Laboratories, Inc.

<x.xx: Indicates sample result was less than laboratory minimum reporting limit.

MPN/100ml: Most probable number per 100 milliliters.

J: Estimated concentration

R: Data rejected due to data quality issues.

Table 7
Soil Vapor Sample Results - Detected VOCs
Crystal Geyser Roxane
Olancha, CA

Location	Depth (ft. bgs)	Date Sampled	Sample ID	1,1,1-TCA µg/m³	1,1-DCA µg/m³	1,2,4-TMB µg/m³	1,3,5-TMB µg/m³	MEK µg/m³	Acetone µg/m³	1-E-4-MB µg/m³	Benzene µg/m³	Butylbenzene µg/m³	CS_2 µg/m³	Chloromethane µg/m³
SV-01	5	07/08/15	SV-01-5-070815	< 2.9	< 2.1	< 7.8	< 2.6	< 4.7 J	25	< 2.6	< 1.7 J	< 2.9	< 6.6	1.1 J
		07/08/15	SV-01-5-070815-DUP	< 2.8	< 2.1	< 7.7	< 2.6	9.6 J	60	< 2.6	20 J	< 2.9	< 6.5	< 1.1 J
		09/16/15	SV-01-5-091615	< 2.7	< 2.0	< 7.4	< 2.5	< 4.4	17	< 2.5	< 1.6 J	< 2.7	< 6.2	1
		09/16/15	SV-01-5-091615-DUP	< 5.0	< 3.7	< 14	< 4.5	< 8.2	18	< 4.5	9.8 J	< 5.1	< 12	< 1.9
		12/09/15	SV-01-5-120915	< 2.9	< 2.2	73 J	27 J	< 4.7	87	17	< 1.7	11 J	< 6.6	< 1.1
		12/09/15	SV-01-5-120915-DUP	< 10	< 7.6	< 28 J	11 J	< 17	68	< 9.3	< 6.0	< 10 J	< 23	< 3.9
		02/17/16	SV-01-5-021716	< 4.4	< 3.3	< 12	< 4.0	< 7.1	< 7.6	< 4.0	< 2.6	< 4.4	< 10	< 1.7
		02/17/16	SV-01-5-021716-DUP	< 3.9	< 2.9	< 10	< 3.5	< 6.3	7.1	< 3.5	< 2.3	< 3.9	< 8.8	< 1.5
		06/30/16	SV-01-5-063016	< 2.7 J	< 2.0 J	< 7.4	< 2.5	< 4.4 J	27 J	< 2.5	< 1.6	< 2.7	< 6.2 J	< 1.0
		06/30/16	SV-01-5-063016-DUP	10 J	15 J	< 7.4	< 2.5	12 J	89 J	< 2.5	< 1.6	< 2.7	8.8 J	< 1.0
		08/30/16	SV-01-5-083016	< 2.7	< 2.0	< 7.4	< 2.5	< 4.4 J	30 J	< 2.5	< 1.6	< 2.7	< 6.2	< 1.0
		08/30/16	SV-01-5-083016-DUP	< 3.2	< 2.4	< 8.6	< 2.9	9.1 J	81 J	< 2.9	< 1.9	< 3.2	< 7.3	< 1.2
Screening Level - 2016 RBSL Industrial Air * 1000				4,400,000	7,700	31,000	180,000	22,000,000	140,000,000	nl	420	880,000	3,100,000	390,000
Screening Level - 2016 RBSL Residential Air * 1000				1,000,000	1,800	7,300	42,000	5,200,000	32,000,000	nl	97	210,000	730,000	94,000
Screening Level - most stringent				1,000,000	1,800	7,300	42,000	5,200,000	32,000,000	nl	97	210,000	730,000	94,000

Table 7
Soil Vapor Sample Results - Detected VOCs
Crystal Geyser Roxane
Olancha, CA

Location	Depth (ft. bgs)	Date Sampled	Sample ID	Ethylbenzene µg/m³	Isopropyl Alcohol µg/m³	m&p-Xylenes µg/m³	o-Xylene µg/m³	sec-Butylbenzene µg/m³	tert-Butylbenzene µg/m³	PCE µg/m³	Toluene µg/m³	TCE µg/m³	VA µg/m³
SV-01	5	07/08/15	SV-01-5-070815	< 2.3 J	18	< 9.2	< 2.3 J	< 2.9	< 2.9	< 3.6 J	< 2.0 J	< 2.8	< 7.5
		07/08/15	SV-01-5-070815-DUP	4.8 J	20	< 9.0	2.3 J	< 2.9	< 2.9	5.2 J	7.8 J	< 2.8	< 7.3
		09/16/15	SV-01-5-091615	< 2.2	< 12	< 8.7	< 2.2 J	< 2.7	< 2.7	< 3.4	3.5 J	< 2.7 J	< 7.0
		09/16/15	SV-01-5-091615-DUP	< 4.0	< 23	< 16	6.2 J	< 5.1	< 5.1	< 6.3	53 J	11 J	< 13
		12/09/15	SV-01-5-120915	< 2.3	< 13	9.4	8	3.4	8.6	< 3.6 J	< 2.0	< 2.9	< 7.5
		12/09/15	SV-01-5-120915-DUP	< 8.2	< 46	< 33	< 8.2	< 10	< 10	16 J	< 7.1	< 10	< 27
		02/17/16	SV-01-5-021716	< 3.5	< 20	< 14	< 3.5	< 4.4	< 4.4	< 5.5	3.2 J	< 4.3	< 11
		02/17/16	SV-01-5-021716-DUP	< 3.1	< 17	< 12	< 3.1	< 3.9	< 3.9	< 4.8	< 2.7 J	< 3.8	< 10
		06/30/16	SV-01-5-063016	< 2.2	< 12	< 8.7	< 2.2	< 2.7	< 2.7	15 J	< 1.9 J	8.4 J	< 7.0 J
		06/30/16	SV-01-5-063016-DUP	< 2.2	< 12	< 8.7	< 2.2	< 2.7	< 2.7	< 3.4 J	7.0 J	4.5 J	17 J
		08/30/16	SV-01-5-083016	< 2.2	< 12	< 8.7	< 2.2	< 2.7	< 2.7	< 3.4	< 1.9	9.5 J	< 7.0 J
		08/30/16	SV-01-5-083016-DUP	< 2.5	< 14	< 10	< 2.5	< 3.2	< 3.2	< 4.0	< 2.2	< 3.1 J	8.5 J
Screening Level - 2016 RBSL Industrial Air * 1000				4,900	880,000	440,000	440,000	1,800,000	1,800,000	47,000	22,000,000	3,000	880,000
Screening Level - 2016 RBSL Residential Air * 1000				1,100	210,000	100,000	100,000	420,000	420,000	11,000	5,200,000	480	210,000
Screening Level - most stringent				1,100	210,000	100,000	100,000	420,000	420,000	11,000	5,200,000	480	210,000

Notes:
Soil vapor samples analyzed by Eurofins Calscience Environmental Laboratory. Samples analyzed using EPA Method TO-15.

RBSL: Screening Levels based on Risk-Based Screening Levels (RBSL) for Soil Vapor, calculated following the recommendations of the DTSC Human Health Risk Assessment Note No. 3, dated June 2016
µg/m³: micrograms per cubic meter
<x.xx: Indicates sample result was less than laboratory minimum reporting limit.
RSL: USEPA Regional screening level.
J: Estimated concentration
TCA: Trichloroethane
DCA: Dichloroethane
PCE: Tetrachloroethylene
TCE: Trichloroethylene
TMB: Trimethylbenzene
MEK: 2-butanone
1-E-4-MB: 1-ethyl-4-methyl-benzene
VA: Vinyl Acetate
CS_2: Carbon Disulfide
bgs: below ground surface

FIGURES

Sierra Nevada Mountains

Owens Dry Lake

Cabin Bar Ranch

Site

Los Angelese Aqueduct

Braley Creek

Cartago Creek

Olancha Creek

Olancha

Lacey Ln

Fall Rd

Summer Rd

Williams Rd

Shop St

Old CA-395

N2464

N2470

19s100

19s101

6730 ft

5738 ft

3600 ft

4000 ft

395

190

Legend

- - - Cabin Bar Ranch Property Boundary

- - - Site Property Boundary

N

0 0.5 Miles

Site Location Map

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | February 2017

Figure 1

P:\GIS\Crystal Geyser\SB0811\Projects\Fig01_Site_Location_Map.mxd 2/8/2017 STM 5:36:15 PM

N

OW-8U
OW-8US
MW-11
MW-12
MW-08
B-02
MW-05
SV-01
MW-04
MW-15
MW-13
MW-07
MW-03
MW-09
MW-06
Former
Arsenic Pond
MW-14
East Pond
SS-02
SS-01
Bottling Facility
MW-02
B-01
MW-10
MW-01
Fire Pond
Outlet
Fire Pond

Legend

- New Monitoring Well Location
- Monitoring Well
- Boring Location
- Soil Vapor Probe
- Surface Soil Sample Location
- Spring Line Fault

Notes:

Units = micrograms per liter (µg/l)
NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

400 0 400 Feet

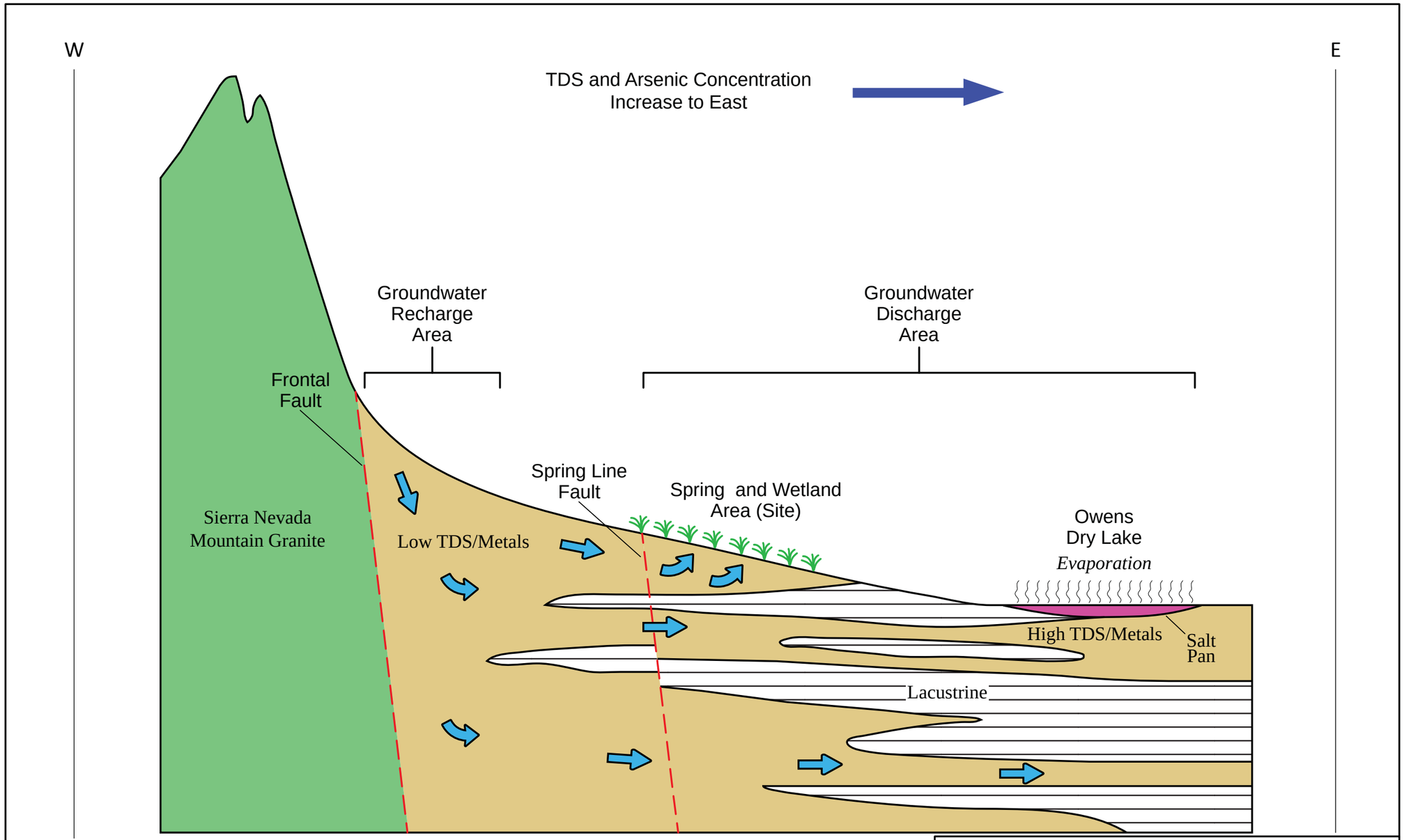
Phase 3 Boring and Groundwater Monitoring Well Locations
September 2016
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | February 2017

Figure 2

P:\GIS\Crystal Geyser\SB0794\Projects\Phase 3\Fig02_Phase3_Borings_Groundwater_Locs.mxd STM 20170213



NOT TO SCALE

Hydrogeological Conceptual Model Illustration

Crystal Geyser Roxane, Spring Water Bottling Facility,
Olancha, California

Geosyntec consultants

Santa Barbara | December 2015

Figure 3

P:\GIS\CrystalGeyser\Olancha\Project\2015Dec\Fig05_Diagram.ai

N

MW-11
3593.94

MW-12
3589.82

3598
3597
3596
3595
3594
3593
3592
3591
3590
3599
3600
3601
3602

i = 0.009

MW-05
3599.12

MW-08
3602.96

MW-04
3602.98

MW-13
3601.16

MW-15*
3613.48

MW-03
3602.78

MW-09
3602.28

MW-07
3601.28

MW-06
3601.53

Former
Arsenic Pond

East Pond

MW-14
Dry

Bottling Facility

3619
3620

MW-02
3618.88

MW-10
3619.39

MW-01
3620.32

Fire Pond
Outlet

Fire Pond

0 400 800 Feet

Legend

- Monitoring Well
- Groundwater Contour
- Inferred Groundwater Contour
- Approximate Location of Spring Line Fault
- Groundwater Gradient
- Parcel Boundaries

Notes:

Groundwater Elevations are feet above mean sea level (ft amsl)
* MW-15 is screened deeper than surrounding monitoring wells and is not contoured.
NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

Groundwater Elevations and Gradient
Shallow Zone Wells
September 2016

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | February 2017

Figure
4

P:\GIS\Crystal Geyser\SB0794\Projects\Phase 3\Fig03_Groundwater_Elevations_and_Gradient_September2016.mxd STM 20170213

N

MW-11
56.0

100

MW-12
95.6

MW-05
191

MW-08
11.3

MW-04
134

MW-03
11.9

MW-15
23.2

MW-09
54.5

MW-13
8.76

MW-07
17.0

MW-06
18.6

Former
Arsenic Pond

East Pond

Bottling Facility

MW-02
5.55

MW-10
11.3

MW-01
9.56

Fire Pond
Outlet

Fire Pond

Legend

Monitoring Well

Arsenic Contour (µg/L)

Notes:
Units = micrograms per liter (µg/l)
NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

400 0 400 Feet

Dissolved Arsenic Isoconcentrations
Shallow Zone Wells
September, 2016

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | February 2017

Figure
5

P:\GIS\Crystal Geyser\SB0794\Projects\Phase 3\Fig04_Dissolved_Arsenic_Isoconcentrations_September2016.mxd STM 20170213

N

OW-8US
A'
MW-11
MW-12
E
MW-08
B-02
MW-05
D
MW-04
MW-15
B'
MW-13
MW-07
MW-03
A
MW-09
E'
Former
Arsenic Pond
MW-06
B
MW-14
East Pond
D'
SS-02
SS-01
Bottling Facility
MW-02
C'
B-01
MW-10
MW-01
C
Fire Pond
Outlet
Fire Pond

Legend

- Lines of Geologic Cross Section
- New Monitoring Well Location
- Monitoring Well
- Boring Location
- Surface Soil Sample Location
- Spring Line Fault

Notes:

Units = micrograms per liter (µg/l)
NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

400 0 400 Feet

Lines of Geologic Cross Sections

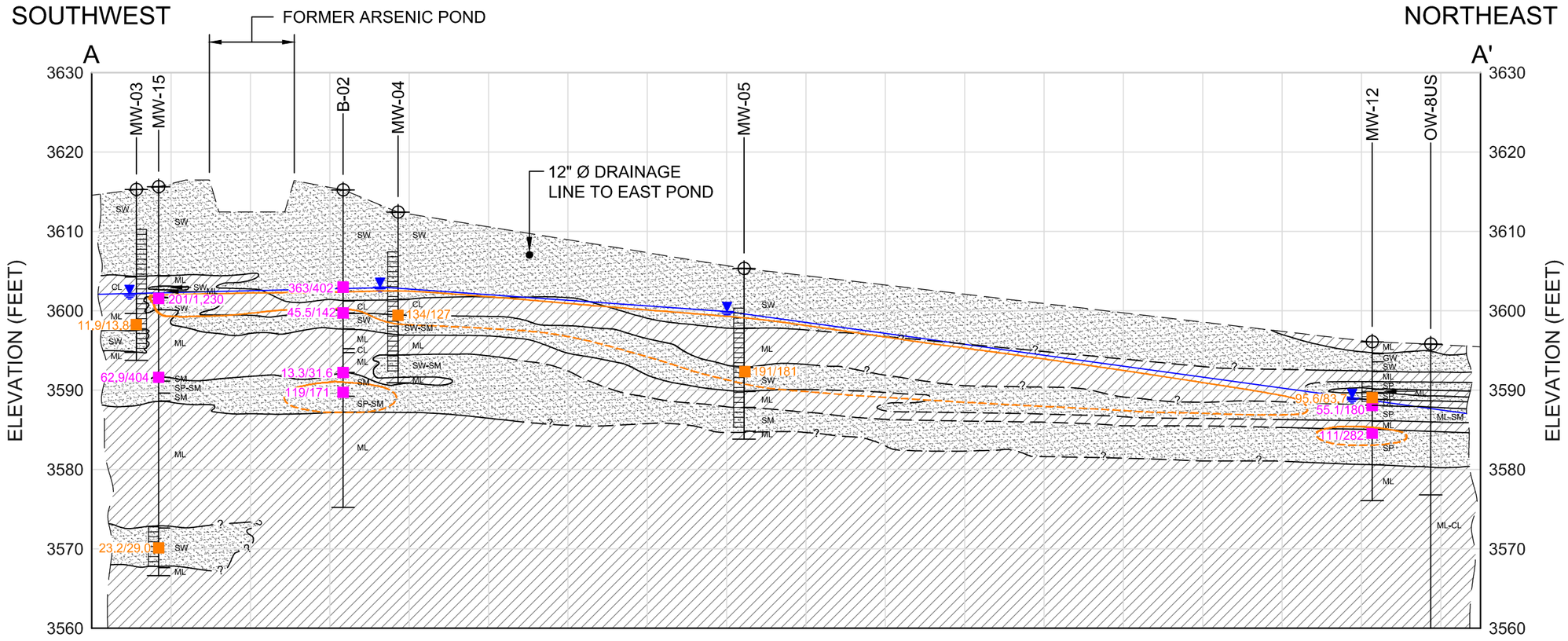
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | February 2017

Figure 6

P:\GIS\Crystal Geyser\SB0794\Projects\Phase 3\Fig05_Lines_of_Geologic_Cross_Sections.mxd STM 20170213



LEGEND

- GENERALIZED SAND/GRAVEL LITHOLOGY
- GENERALIZED CLAYS/SILTS LITHOLOGY
- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- 12" Ø DRAINAGE LINE TO EAST POND
- DISSOLVED ARSENIC ISOCONCENTRATION (100 ug/L); DASHED WHERE INFERRED

USCS SYMBOLS

GW	WELL GRADED GRAVEL	SM	SILTY SAND
SW	WELL GRADED SAND	SM-ML	SILTY SAND TO SILT
SW-SM	WELL GRADED SAND WITH SILT	CL	LEAN CLAY
SP	POORLY GRADED SAND	ML	SILT
SP-SM	POORLY GRADED SAND WITH SILT	ML-CL	SILT TO CLAY

0 150
HORIZONTAL SCALE

0 15
VERTICAL SCALE

SITE GEOLOGIC CROSS SECTION A-A'
CRYSTAL GEYSER ROXANE WATER
OLANCHA, CALIFORNIA

Geosyntec consultants

Project No: SB0794 | February, 2017

Figure 6A

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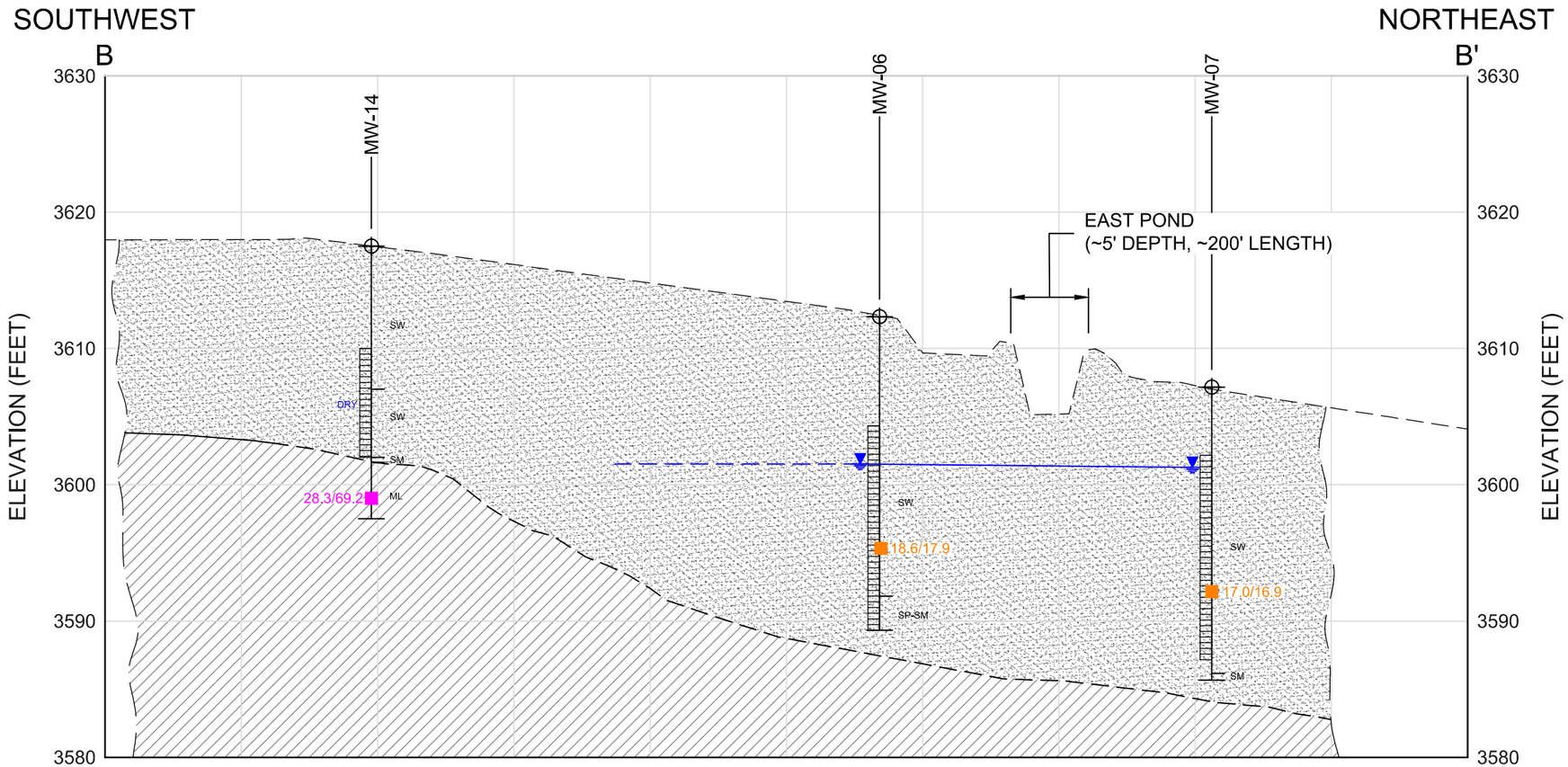

LEGEND

- GENERALIZED SAND/GRAVEL LITHOLOGY
- GENERALIZED CLAYS/SILTS LITHOLOGY
- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)

USCS SYMBOLS

SW	WELL GRADED SAND
SP-SM	POORLY GRADED SAND WITH SILT
SM	SILTY SAND
ML	SILT

0 100
HORIZONTAL SCALE

0 10
VERTICAL SCALE

SITE GEOLOGIC CROSS SECTION B-B'
CRYSTAL GEYSER ROXANE WATER
OLANCHA, CALIFORNIA

Geosyntec consultants

Project No: SB0794 | February, 2017

Figure 6B

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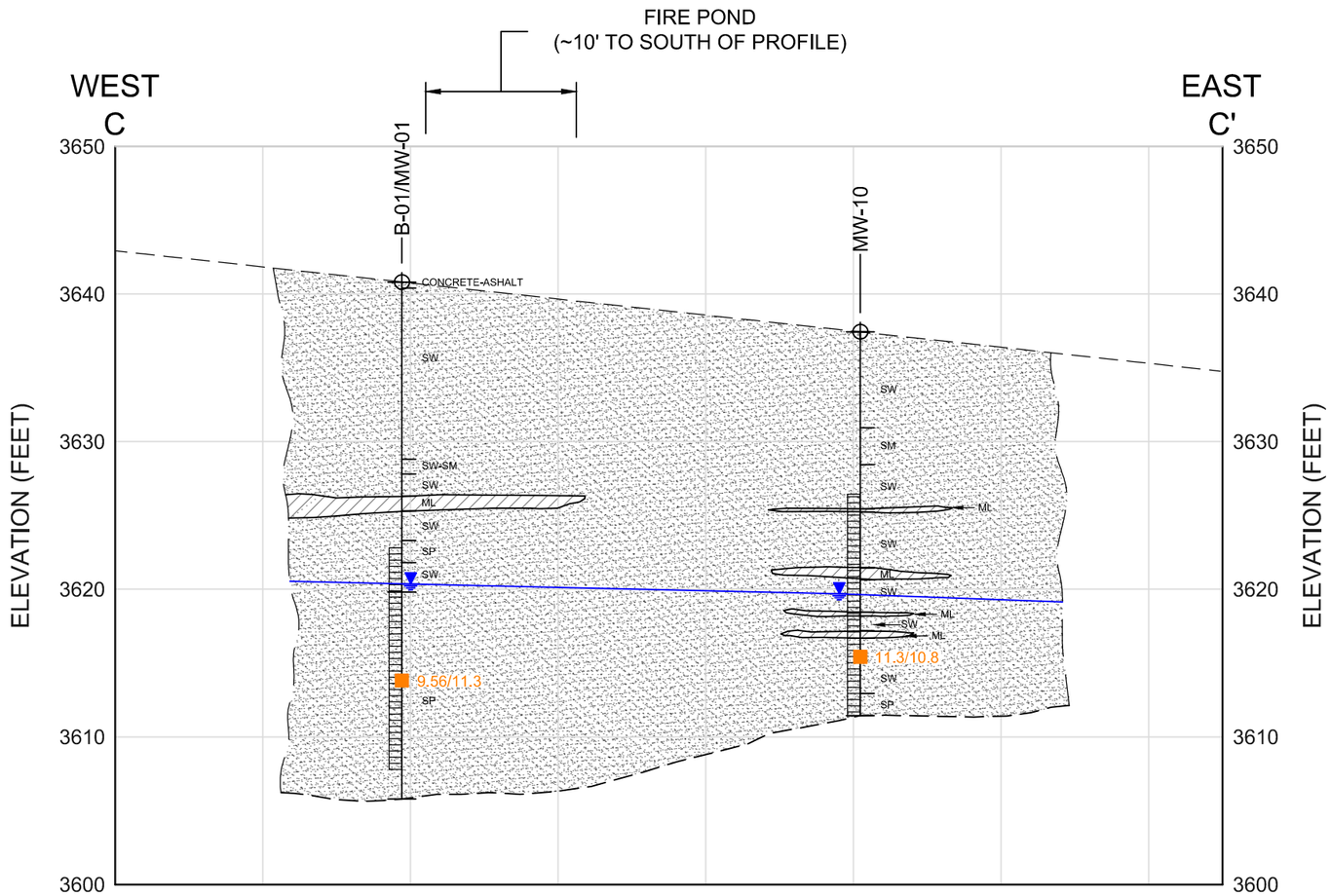

LEGEND

- GENERALIZED SAND/GRAVEL LITHOLOGY
- GENERALIZED CLAYS/SILTS LITHOLOGY
- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)

USCS SYMBOLS

SW	WELL GRADED SAND
SW-SM	WELL GRADED SAND WITH SILT
SP	POORLY GRADED SAND
SM	SILTY SAND
ML	SILT

0 100
HORIZONTAL SCALE

0 10
VERTICAL SCALE

SITE GEOLOGIC CROSS SECTION C-C'
CRYSTAL GEYSER ROXANE WATER
OLANCHA, CALIFORNIA

Geosyntec consultants

Figure
6C

Project No: SB0794 | February, 2017

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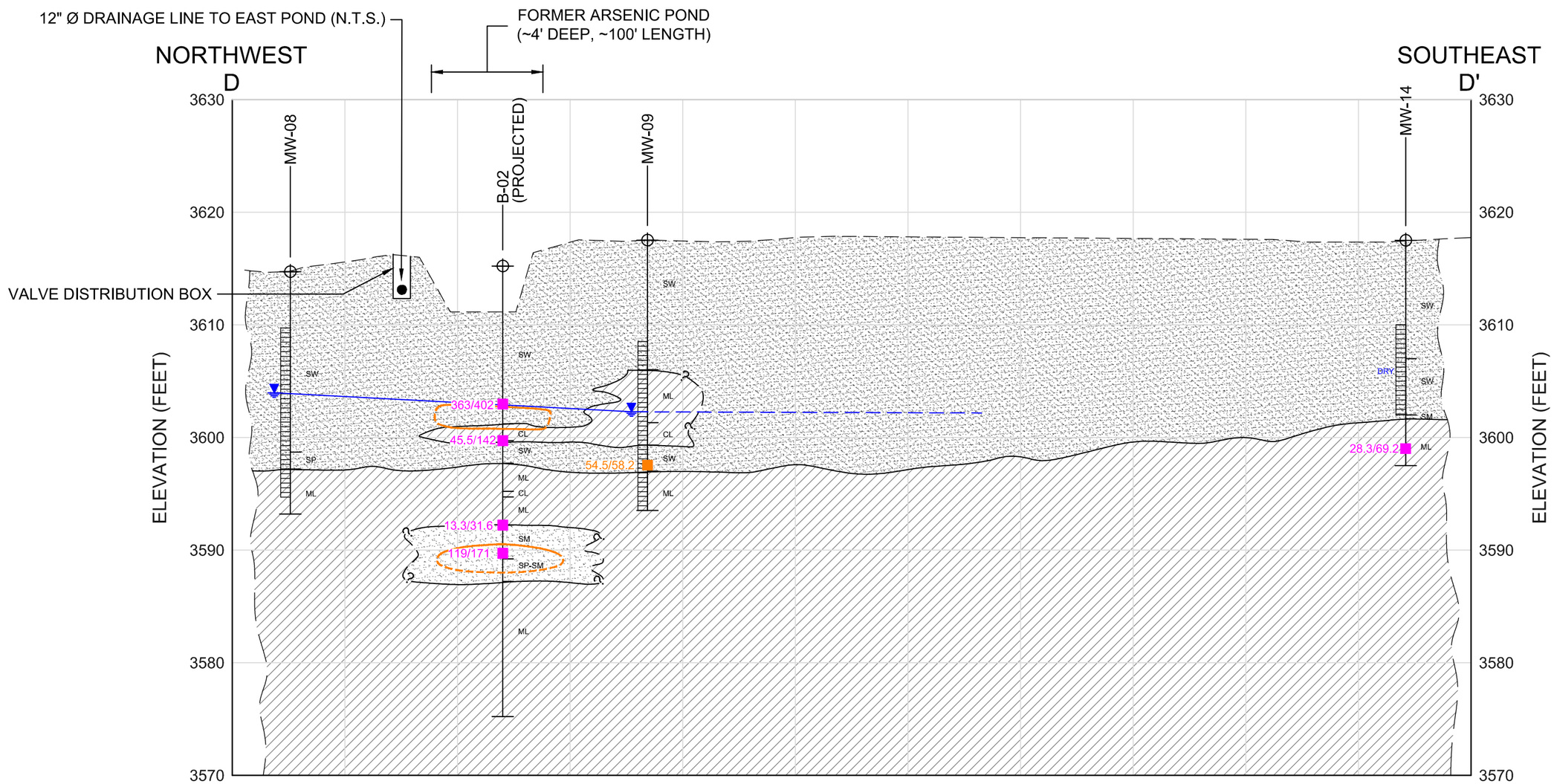

LEGEND

- GENERALIZED SAND/GRAVEL LITHOLOGY
- GENERALIZED CLAYS/SILTS LITHOLOGY
- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- 12" Ø DRAINAGE LINE TO EAST POND
- DISSOLVED ARSENIC ISOCONCENTRATION (100 ug/L); DASHED WHERE INFERRED

USCS SYMBOLS

SW	WELL GRADED SAND
SP-SM	POORLY GRADED SAND WITH SILT
SP	POORLY GRADED SAND
SM	SILTY SAND
CL	LEAN CLAY
ML	SILT

0 100
HORIZONTAL SCALE

0 10
VERTICAL SCALE

SITE GEOLOGIC CROSS SECTION D-D'
CRYSTAL GEYSER ROXANE WATER
OLANCHA, CALIFORNIA

Geosyntec consultants

Figure
6D

Project No: SB0794 | February, 2017

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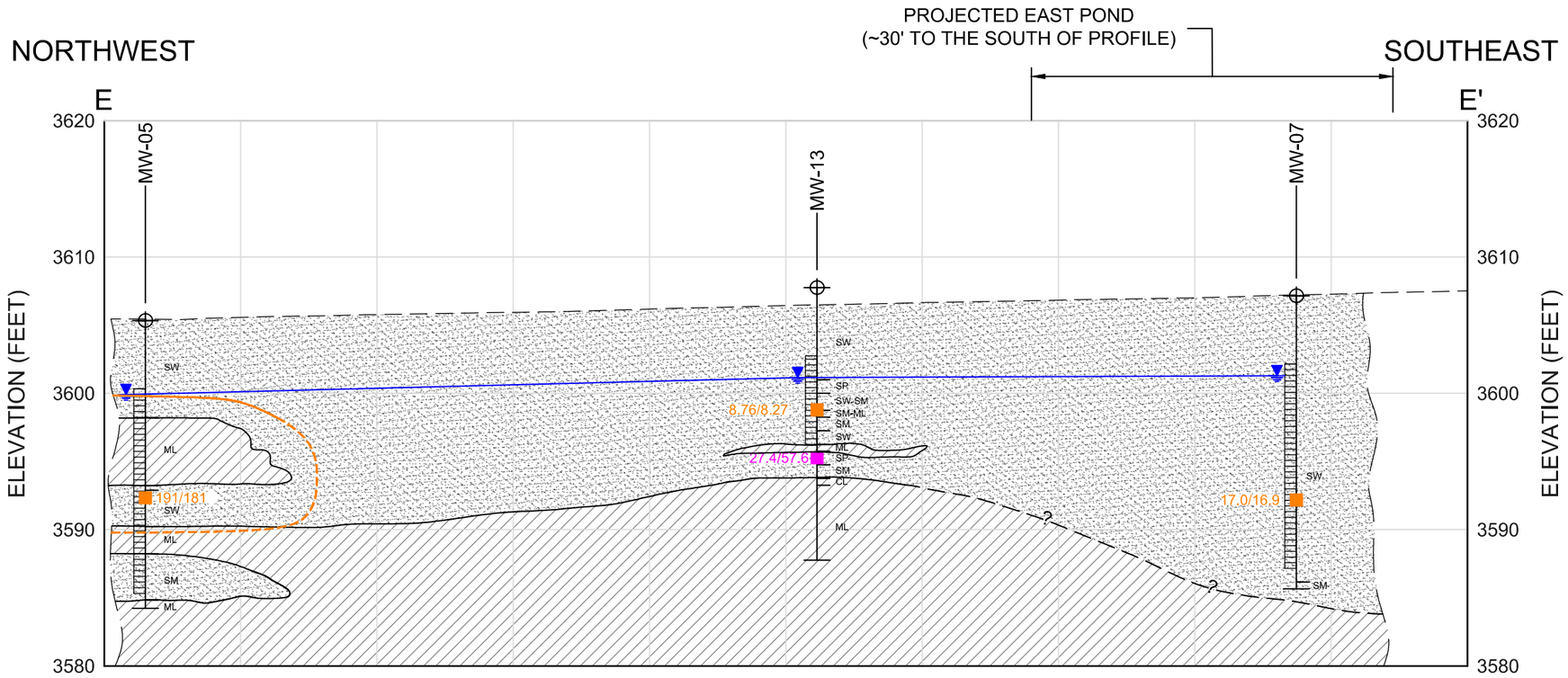

LEGEND

- GENERALIZED SAND/GRAVEL LITHOLOGY
- GENERALIZED CLAYS/SILTS LITHOLOGY
- GROUNDWATER ELEVATION
- SCREENED INTERVAL
- GROUNDWATER MONITORING SAMPLE (SEPTEMBER 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- GROUNDWATER GRAB SAMPLE (AUGUST 2016) - DISSOLVED ARSENIC / TOTAL ARSENIC CONCENTRATION (μg/L)
- DISSOLVED ARSENIC ISOCONCENTRATION (100 ug/L); DASHED WHERE INFERRED

USCS SYMBOLS

SW	WELL GRADED SAND
SW-SM	WELL GRADED SAND WITH SILT
SP	POORLY GRADED SAND
SM	SILTY SAND
SM-ML	SILTY SAND TO SILT
CL	LEAN CLAY
ML	SILT

0 100
HORIZONTAL SCALE

0 10
VERTICAL SCALE

SITE GEOLOGIC CROSS SECTION E-E'
CRYSTAL GEYSER ROXANE WATER
OLANCHA, CALIFORNIA

Geosyntec consultants

Project No: SB0794 | February, 2017

Figure 6E

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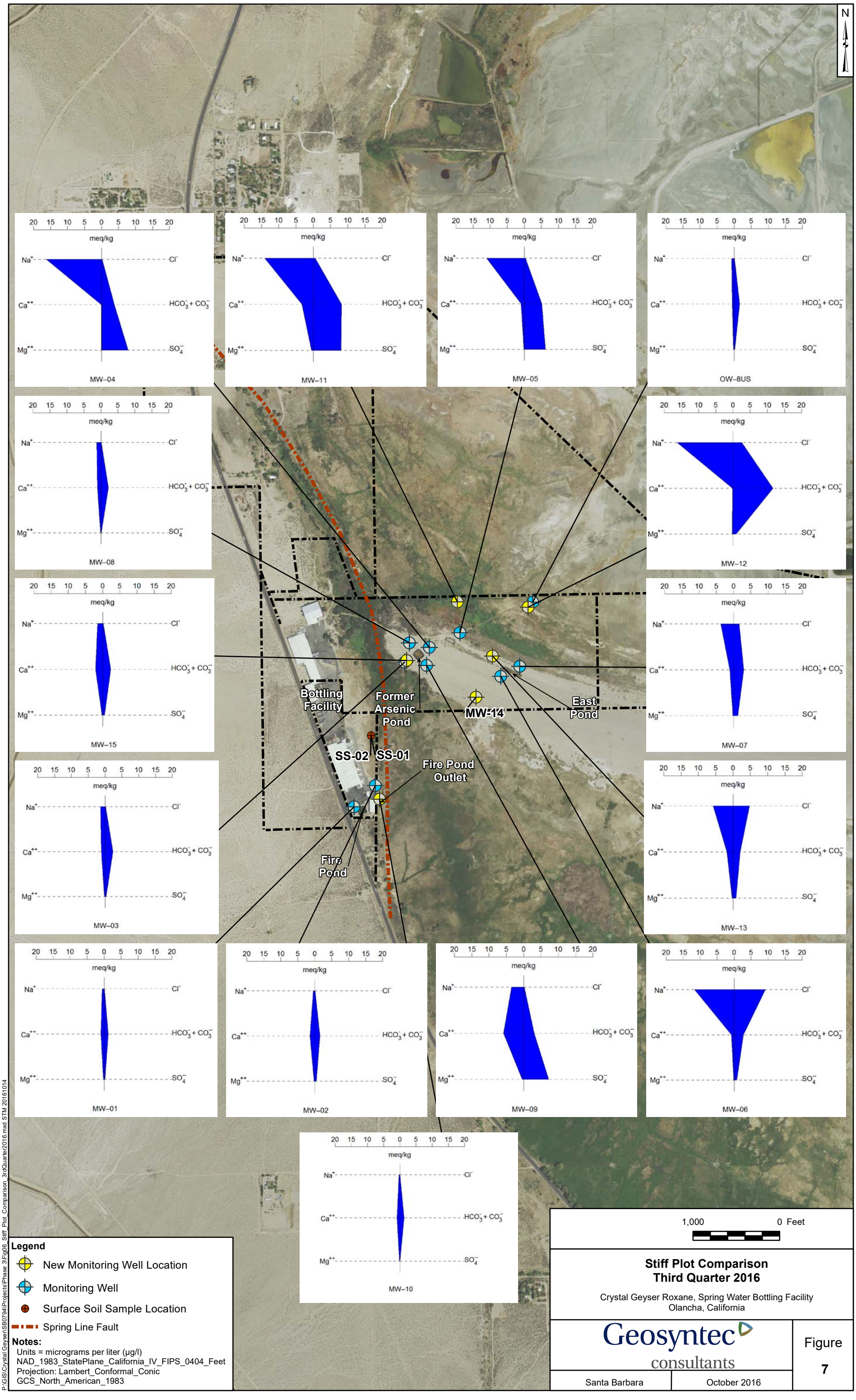

Legend

- New Monitoring Well Location
- Monitoring Well
- Surface Soil Sample Location
- Spring Line Fault

Notes:

Units = micrograms per liter (µg/l)
NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

1,000 0 Feet

Stiff Plot Comparison
Third Quarter 2016

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | October 2016

Figure 7

P:\GIS\Crystal Geyser\SB07794\Projects\Phase 3\Fig06_Stiff_Plot_Comparison_3rdQuarter2016.mxd STM 20161014

APPENDIX A

GROUNDWATER MODFLOW MODELING

Geosyntec consultants

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APPENDIX A

Groundwater MODFLOW Modeling

Date: February 28, 2017

Subject: Groundwater MODFLOW Modeling
Crystal Geyser Roxane, Spring Water Bottling Facility,
Olancha, California

---

1. INTRODUCTION

Geosyntec Consultants, Inc., (Geosyntec) has prepared this memorandum describing the results of groundwater flow modeling for Crystal Geyser Roxane, Spring Water Bottling Facility, Olancha, California (site).

Numerical modeling was used to estimate the groundwater flow and particle tracking under current and future groundwater pumping conditions at site discharge ponds and to estimate historical mounding along with groundwater flow at the Former Arsenic Pond (AP) and the East Pond (EP). The numerical model used to perform this assessment was updated from an existing model developed by Geosyntec (Geosyntec, 2014 and 2016) in connection with the Cabin Bar Ranch bottling facility project. The updated model is described in this appendix.

1.1 Purpose

The purposes of this memorandum are to: 1) describe the numerical modeling approach used to assess the groundwater flow and potential mounding, and 2) present the model simulation results including particle tracking from the site discharge ponds under historical and future conditions.

2. MODEL CONSTRUCTION AND CALIBRATION

2.1 Conceptual Model and Overview

Groundwater beneath the site is mostly derived from precipitation (rainfall) and snowmelt that runs off the Sierra Nevada Mountains to the west and infiltrates into the alluvial fan near the mountain base or enters the alluvial aquifer through fractures in the bedrock. Groundwater in the

alluvium flows eastward, away from the Sierra Nevada Mountains and towards the central portion of the Owens Valley basin. In the site vicinity, the alluvium layer is divided into two permeable layers, separated by a fine-grained lacustrine layer that occurs at a depth of approximately 80 feet below ground surface (bgs). The upper aquifer material is referred to as the Shallow Zone, and consists predominately of sand and gravel interspersed with fine-grained layers. The 80-foot deep fine-grained layer is an aquitard that separates the Shallow Zone from deeper sandy and gravely alluvium. This fine-grained layer pinches out towards the west. The Deep Zone in the site vicinity is found at depths of greater than 80-feet bgs, and generally consists of coarse sands and gravel layers. In the site vicinity, the Shallow Zone is an unconfined aquifer and the Deep Zone is a confined aquifer. A site-wide upward groundwater gradient exists based on comparison of water levels in co-located observation wells completed in the Deep and Shallow Zones. Groundwater flow direction in the upper shallow zone is generally in the northeast direction towards the Owens Dry Lake with a gradient of approximately 0.01 feet/foot.

The depth to the shallow groundwater table beneath the site gradually decreases towards the east. In the south-central portion of the site, shallow groundwater intersects the ground surface along an approximate line where springs and seeps are observed. These springs and seeps occur along a fault called the Spring-line fault. This fault appears to act as a barrier to groundwater flow in the Shallow Zone, resulting in a rise of the groundwater table, and the observed springs and meadowlands in the central and eastern portions of the site.

2.2 Numerical Model Domain, Grid, and Layers

The three-dimensional model for groundwater flow was developed using MODFLOW, an industry standard finite-difference code. Groundwater flow in the model is assumed to be steady-state.

The model domain is illustrated on Figure A-1. The model domain extends from the foothills of the Sierra Nevada Mountains on the west to the Owens Dry Lake bed on the east. In the north-south direction, the model extends to include the town of Cartago in the north and the Crystal Geyser-Roxanne facility in the south. The trapezoidal model domain is 11,900 feet (ft) wide in the north-south direction, 7,200 ft wide in the east-west direction at the north boundary, and 11,800 ft wide in the east-west direction at the south boundary.

The model domain simulates groundwater flow in the Shallow and Deep zones and includes simulation of pumping in active groundwater supply wells at the site, to the south of the Cabin Bar Ranch, and in the town of Cartago, to the north of the Cabin Bar Ranch. The three geological layers at the site, Shallow zone, clay/silt layer and deeper sandy and gravely alluvium, were simulated with three model layers. The top of the model domain was interpolated from a Digital Elevation

Model obtained from the USGS National Map Viewer (USGS, 2012)[1]. The top of the middle layer was defined based on well logs and previous hydrogeological investigations (Geosyntec, 2011) and was calculated as the minimum of either 3,550 ft mean sea level (ft msl) or the top of the domain minus 75 ft. The thickness of the middle layer was 10 ft across the model domain. The bottom of the model domain was fixed at 3,300 ft msl. This corresponds to a total average model thickness of 325 ft in the vicinity of the site. The sequence of alluvium and lacustrine deposits beneath the site is at least 750 feet thick (Geosyntec, 2011). The model domain focuses on the upper portion of the deposits, as it was developed to assess the impacts of pumping in the shallow zone and in the upper deep zone. A cross-section of the model domain is shown on Figure A-2.

2.3 Groundwater Flow Model

2.3.1 Observation data – Head

Groundwater head measurements from the September 2016 quarterly groundwater monitoring event were used for model calibration. The well locations and observed water levels are shown on Figure A-3 and in Table A-1, respectively.

The interpolated water level contour map in the vicinity of the AP, based on September 2016 monitoring event data, was also used qualitatively for calibration.

2.3.2 Observation data – Spring Flows

Flow rates at selected spring flows were measured in 2010 as part of the hydrogeological investigations (Geosyntec, 2011). Spring discharge generally flows eastward into the main collection ditch and the total flow at the ditch was estimated at roughly 350 gallons per minute (gpm) (Geosyntec, 2011). This total spring flow rate was used to calibrate the model.

2.3.3 Model Boundaries and Stresses

Groundwater flow in the model domain is from west to east, consistent with measured northeasterly flow in the AP area. A no-flow boundary was applied at the northern and southern sides of the model. A constant head boundary is applied to the east and west sides of the model. Constant head boundaries were based on the extrapolation of a surface created from water levels measured in various wells and piezometers in September 2016. The constant head boundaries resulted in a horizontal regional gradient of approximately 0.01 ft/ft.

[1] The upper model layer is simulated as an unconfined aquifer such that the layer is not fully saturated.

The model simulated a maximum evapotranspiration (ET) rate of 0.01 feet per day from the surface which equates to 3.65 feet per year (ft/yr). This ET rate is consistent with an ET rate of 3.2 ft/year estimated by Duell (1988) for meadows in the Owens Valley and is within the range of previously published ET rates for the Owens Valley as presented in JMM (1993) for the site. The ET rates reported by JMM range from 2.6 ft/year (empirical method where groundwater is less than 8 ft bgs) published by Williams (1969) to 4.4 ft/year (open water or mudflats) published by Danskin (1988) (as cited by JMM., 1993). The ET extinction depth was setup to 10 ft bgs.

The springs along the Spring-line fault were simulated with the drain package and the bottom elevation of the drains was defined 2 feet below ground elevation. Springs were defined at locations ES-1A, ES-3, ES-3A, and CBS-1 to CBS-9. The spring locations are shown on Figure A-4.

The Spring-line fault was simulated as a horizontal flow barrier, in both the shallow and deep sand zones. The modeled and observed spring flow was used to calibrate the hydraulic characteristics of the barrier (hydraulic conductivity divided by fault thickness). Further discussion of groundwater flow calibration results is presented in Section 2.4.

There are several private active pumping wells in the model domain, located in the Cartago area. Average pumping rates of 650 gallons per day (gpd) were used in the model, unless reported otherwise by the owner. There is also one municipal water supply well in Cartago (CMW-2), which provides water to 43 residences. The average pumping rate at this well was estimated based on an estimate rate of 650 gpd per residence (27,950 gpd at the well). The production wells from the CGR Olancha facility and proposed production wells at the Cabin Bar Ranch property are also included in the model. The location of all pumping wells in the model are shown on Figure A-4. The model inputs of each pumping well (pumping rates, pumping zone) are summarized in Table A-2.

The EP and Fire Pond (FP) (see Figure A-4) are simulated with discharge rates of 40 and 2 gpm, respectively (CGR, 2014).

2.3.4 Material Properties

The deep zone was modeled with uniform hydraulic parameters (i.e., horizontal and vertical hydraulic conductivity). The Shallow Zone was modeled with three zones for hydraulic conductivities, shown on Figure A-4. Pumping tests performed in 2010 in wells CGR-8, CGR-9 and CGR-10 resulted in estimates of average hydraulic conductivity of the Shallow Zone between 230 to 550 ft/day (Geosyntec, 2011). These values were used to calibrate groundwater flow simulation. Further discussion of groundwater flow calibration results is presented in Section 2.4. Parameters used in the model are summarized in Table A-3.

The aquitard-like properties of the clay/silt layer are represented in the model to extend from the eastern domain boundary westward to the western edge of the valley floor/HWY-395 area. The remainder of the middle layer to the west was assigned the same properties as the deep sand layer, simulating a westward pinching out of the aquitard. The aquitard extent is based on well logs, which shows that the clay/silt layer is present at wells PAL-1 and CMW-2 but not at wells PAT-1 and HAR-1.

2.4 Model Calibration

The flow model was calibrated to fit the observed head at the monitoring wells (Figure A-3), and the total spring flow rate (see Section 2.3.2).

The model parameters are summarized in Table A-3. These parameters are further discussed below.

2.4.1 Groundwater Flow Model Parameters

Significant groundwater flow model parameters are as follows:

- The calibrated hydraulic conductivity values for the Shallow Zone are 315 ft/day west of the fault, 400 ft/day northeast of the fault and 250 ft/day southeast of the fault (Figure A-4), which are consistent with the range estimated from pumping tests (230 to 550 ft/day, Geosyntec, 2011). Hydraulic conductivity values southeast of the fault are estimated based on coarse-grained units encountered during drilling activities. Hydraulic conductivity values northeast of the fault is based on calibration.

- A sensitivity analysis was performed to assess the impact of lower hydraulic conductivity values east of the fault on particle tracking and mounding in the vicinity of the AP and EP (see Section 3.1).

- The calibrated evaporation rate is 3.65 feet per year.

- Figure A-5 presents a plot of observed versus simulated heads, illustrating a good model fit to the observed heads. The root mean squared residual is 3.4 feet, approximately 9.9% of the observed head difference at the site (34.1 feet).

- The simulated total spring flow (which is assumed to include water flowing to the main collector ditch) is 310 gpm. This value is consistent with observed discharge (roughly 350 gpm) from the main collection ditch (see section 2.3.2).

- The calibrated head contours are illustrated on Figure A-6.

3. GROUNDWATER FLOW AND PARTICLE TRACKING SIMULATIONS

The calibrated model was used to assess groundwater flow at the discharge ponds at the site under historical and future proposed pumping conditions. The historical scenario simulation includes the pumping of wells CGR-2, CGR-3, CGR-4, and CGR-7 only. The future scenario simulation includes additional pumping at the Cabin Bar Ranch facility (CGR-8, CGR-9, and CGR-10).

3.1 Historical Groundwater Flow Simulation at Discharge Ponds

The calibrated model was used to assess groundwater flow and potential groundwater mounding from the AP and the EP under historical wastewater discharge conditions[2]. This assessment assumes that the discharge ponds are un-lined and discharged waste water infiltrated directly to groundwater.

Two scenarios were simulated for infiltration at the AP and EP based on historical information:

1. Typical wastewater discharge flow rates of 1,700 and 56,000 gpd to the AP and EP, respectively; and
2. Maximum flow rates of 4,000 and 60,000 gpd at AP and EP, respectively[3].

Figure A-7 shows the simulated water level in the vicinity of the EP and AP and forward particle tracking illustrating the groundwater flow from the ponds for the two scenarios (typical and maximum flow rates).

The model results illustrate that in both scenarios simulated, the groundwater infiltrating at the AP and EP flow towards the northeast and that the impacts on the water levels in the vicinity of the ponds is minimal (i.e. no mounding is evident).

In order to assess the impact of lower hydraulic conductivity values east of the fault, a sensitivity analysis run was performed, using 100 ft/day as the horizontal hydraulic conductivity east (both northeast and southeast) of the fault. The vertical hydraulic conductivity value east of the fault was also reduced to 1 ft/day. Figure A-8 shows the simulated water level in the vicinity of the EP and AP and forward particle tracking illustrating the groundwater flow from the ponds for this

[2] Hydraulic conductivity values used in this scenario assumed no vertical migration below the upper-most encountered fine-grained layer in the soil beneath the AP and the EP.
[3] Historical typical and maximum flow rates were obtained via Crystal Geyser communication based on internal documentation.

sensitivity scenario, using the maximum flow rates. Similar to the results shown on Figure A-7, the groundwater infiltrating at the AP and EP flow towards the northeast and the impacts on the water levels in the vicinity of the ponds is minimal (i.e. no mounding is evident). This sensitivity analysis run represents a worst-case scenario in that it assumes that there was no liner in the AP such that all waste water discharged to the AP was infiltrated directly to groundwater. Additionally, the lower hydraulic conductivity values do not appear to be representative of the aquifer, as the calibration (comparison of simulated and observed water levels and comparison of simulated and observed spring flow) decreases with decreasing hydraulic conductivity.

3.2 Future Groundwater Flow Simulation at Discharge Ponds

Four additional pumping wells, CGR-8, CGR-9, CGR-10, and CBR-1 (see Figure A-4), were added to the model to simulate groundwater flow under future conditions. CGR-8, CGR-9, and CGR-10 were set at a constant rate of 67 gpm and CBR-1, used as a domestic well, was set to 0.3 gpm. The scenario includes pumping in site production wells CGR-2, CGR-3, CGR-4, and CGR-7, and active domestic wells in the town of Cartago including the Cartago Mutual Water Well (Table A-2). Pumping rates in these off-site wells were based on either reported rates by the owner or estimated rates based on typical average residential use (650 gallons per day).

In addition to the AP and EP, the future scenario simulation includes particle tracking from the Fire Pond (FP) and a proposed wastewater infiltration pond at the Cabin Bar Ranch property north of the site (Figure A-4). The wastewater infiltration pond was modeled with an anticipated flow rate of 23,000 gpd. Under future conditions the EP and FP are simulated as infiltration ponds, however, no discharge and therefore no infiltration is assumed at the AP.

Figure A-8 shows the simulated capture zones at the pumping wells and forward particle tracking illustrating the groundwater flow path from the discharge ponds.

The model results illustrate that the groundwater at the ponds flow towards the northeast ultimately discharging in Owens Dry Lake and that this groundwater is not captured by any of the pumping wells.

4. CONCLUSIONS

In conclusion, results of the groundwater modeling indicate the following:

1. Under historical typical and maximum discharge flow rates, impacts to water levels in the vicinity of the AP and EP is minimal with no groundwater mounding evident;
2. Using maximum historical discharge flow rates and lower range hydraulic conductivity values, groundwater mounding at the AP and EP is not evident;

3. Groundwater at the site ponds is shown to flow towards the northeast toward Owens Dry Lake under both historical and future conditions; and
4. Under future pumping conditions, water discharged from the site ponds will not be captured by any of the site pumping wells.

5. REFERENCES

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Williams, D.E., 1969, Preliminary Geohydrogeologic Study of a Portion the Owens Valley Ground Water Reservoir, Ph.D Thesis, New Mexico Institute of Mining and Technology.

LIST OF TABLES

LIST OF FIGURES

* * * * *

Table A-1 - Measured Water Levels Used for Calibration
Cabin Bar Ranch, Olancha, California

Well Name	Water Level (ft msl)
OW-7U	3610.54
P-5	3616.43
P-10	3617.03
RP-1	3613.08
MW-01	3620.32
MW-02	3618.88
MW-10	3619.39
MW-03	3602.78
MW-04	3602.98
MW-05	3599.12
MW-06	3601.53
MW-07	3601.28
MW-08	3602.96
MW-09	3602.28
MW-11	3593.94
MW-12	3589.82
MW-13	3601.16
MW-15	3613.48
OW-10U	3616.86
SSW-1	3616.70
MW-3	3623.90
OW-7Ma	3618.92
OW-10M	3617.66

Notes:

Water levels measured in September 2016.

ft msl = feet mean sea level

Table A-2 - Input Parameters for Pumping Wells
Cabin Bar Ranch, Olancha, California

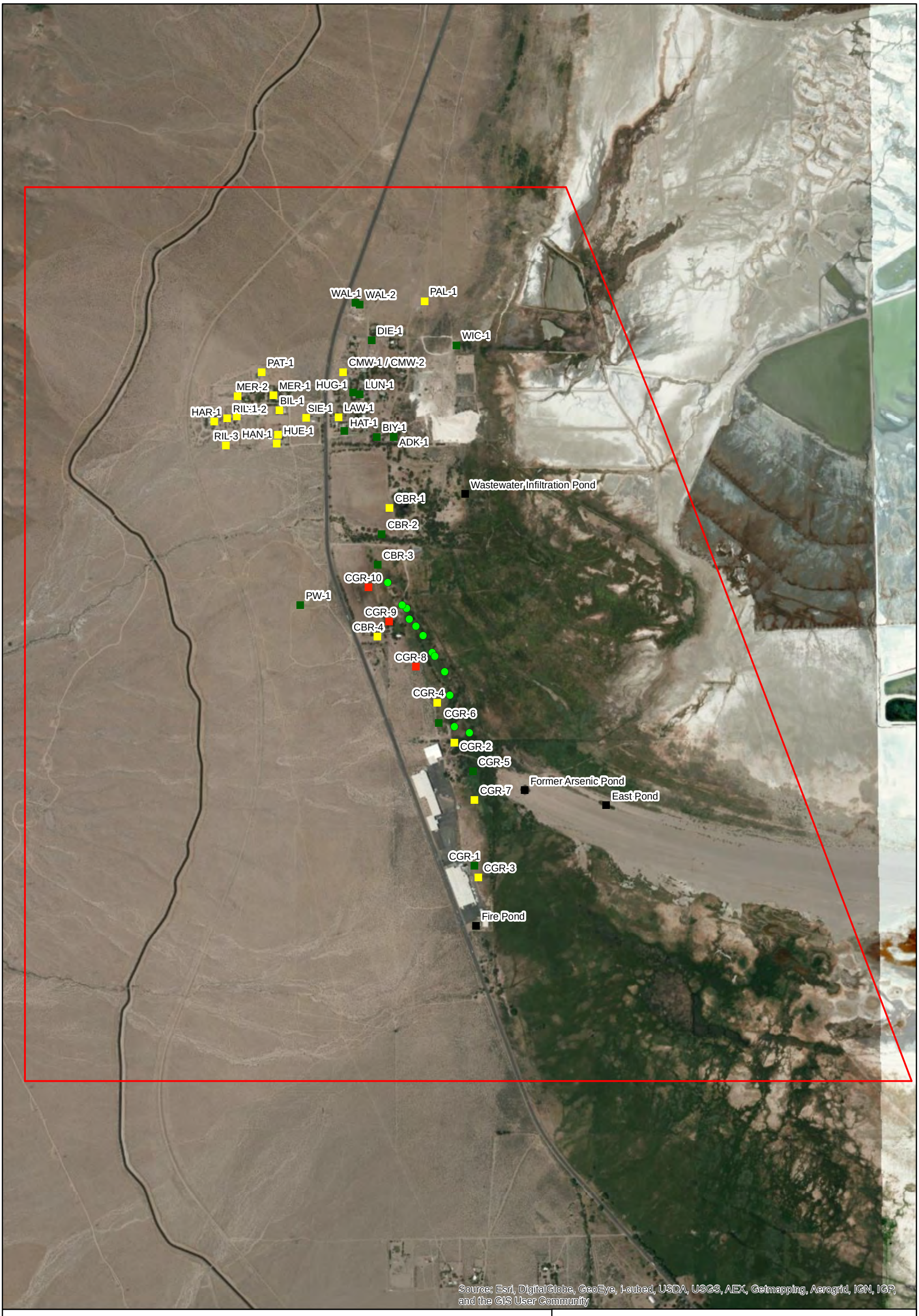
Well	Type	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Percent Pumping		Pumping Rate (gpm)
				Shallow Zone	Deep Zone	
Cartago Active Supply Wells						
CMW-2	Active Well	115	150	0	100	19.4
BIL-1	Active Well		98	50	50	0.45
HAN-1	Active Well		86	50	50	0.45
HAR-1	Active Well	100	157	0	100	0.28
HUE-1	Active Well		140	50	50	0.45
LAW-1	Active Well		120	50	50	0.45
MER-1	Active Well		85	50	50	0.45
MER-2	Active Well		105	50	50	0.45
PAL-1	Active Well	100	185	0	100	0.45
PAT-1	Active Well	93.5	153.5	0	100	0.45
RIL-1	Active Well			50	50	0.45
RIL-2	Active Well			50	50	0.45
RIL-3	Active Well			50	50	0.45
SIE-1	Active Well			50	50	0.45
Cartago Non-Active Supply Wells						
ADK-1	Non-Active Well		100			0.0
BIY-1	Non-Active Well		65			0
CMW-1	Standby Well					0
DIE-1	Non-Active Well		90			0
HAT-1	Non-Active Well					0
HUG-1	Non-Active Well		100			0
LUN-1	Non-Active Well		100			0
WAL-1	Non-Active Well		94			0
WAL-2	Non-Active Well		90			0
WIC-1	Non-Active Well		320			0
Crystal Geyser-Roxanne Active Pumping Wells						
CBR-1	Active Well	60	120	50	50	0.3
CBR-4	Active Well		60	100	0	0.45
CGR-2	Active Well	51	65	100	0	130
CGR-3	Active Well	56	72	100	0	9
CGR-4	Active Well	52	67	100	0	9
CGR-7	Active Well	55	70	100	0	37
Crystal Geyser-Roxanne Non-Active Pumping Wells						
CGR-1	Non-Active Well					0
CBR-2	Non-Active Well	62	166			0
CBR-3	Non-Active Well					0
CGR-5	Non-Active Well					0
CGR-6	Non-Active Well					0
PW-1	Non-Active Well	200	650			0
Crystal Geyser-Roxanne Additional Pumping Wells						
CGR-8	Future Well	53	66	100	0	67
CGR-9	Future Well	53	73	100	0	67
CGR-10	Future Well	53	73	100	0	67

Table A-3 - Model Parameters
Cabin Bar Ranch, Olancha, California

Parameter		Unit	Value
Evaporation	Evaporation Rate	ft/year	3.65
	Extinction Depth	ft	10
Horizontal Hydraulic Conductivity	Shallow Zone (West)	ft/day	315
	Shallow Zone (Northeast)		400
	Shallow Zone (Southeast)		250
	Deep Zone		10
	Clay/Silt Layer		0.2
Vertical Hydraulic Conductivity	Shallow Zone (West)	ft/day	3.15
	Shallow Zone (Northeast)		4
	Shallow Zone (Southeast)		2.5
	Deep Zone		0.1
	Clay/Silt Layer		0.002
Horizontal Flow Barrier Characteristics	Shallow Zone	1/day	0.225
	Middle/Deep Zone		0.001

Notes:

Hydraulic conductivity zones for Shallow Zone are shown in Figure A-4



Legend

- Springs
- Pond
- Active Well
- Non-Active Well
- Additional Pumping Well
- Model Domain

N

0 600 1,200 Feet

Model Domain - Plan View

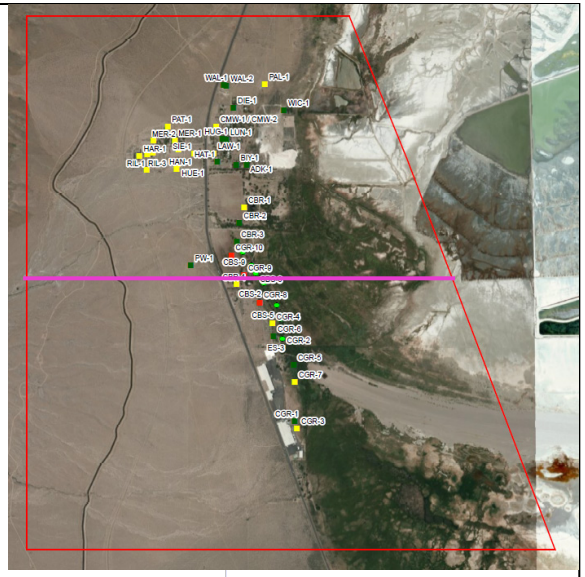
Cabin Bar Ranch, Olancha, California

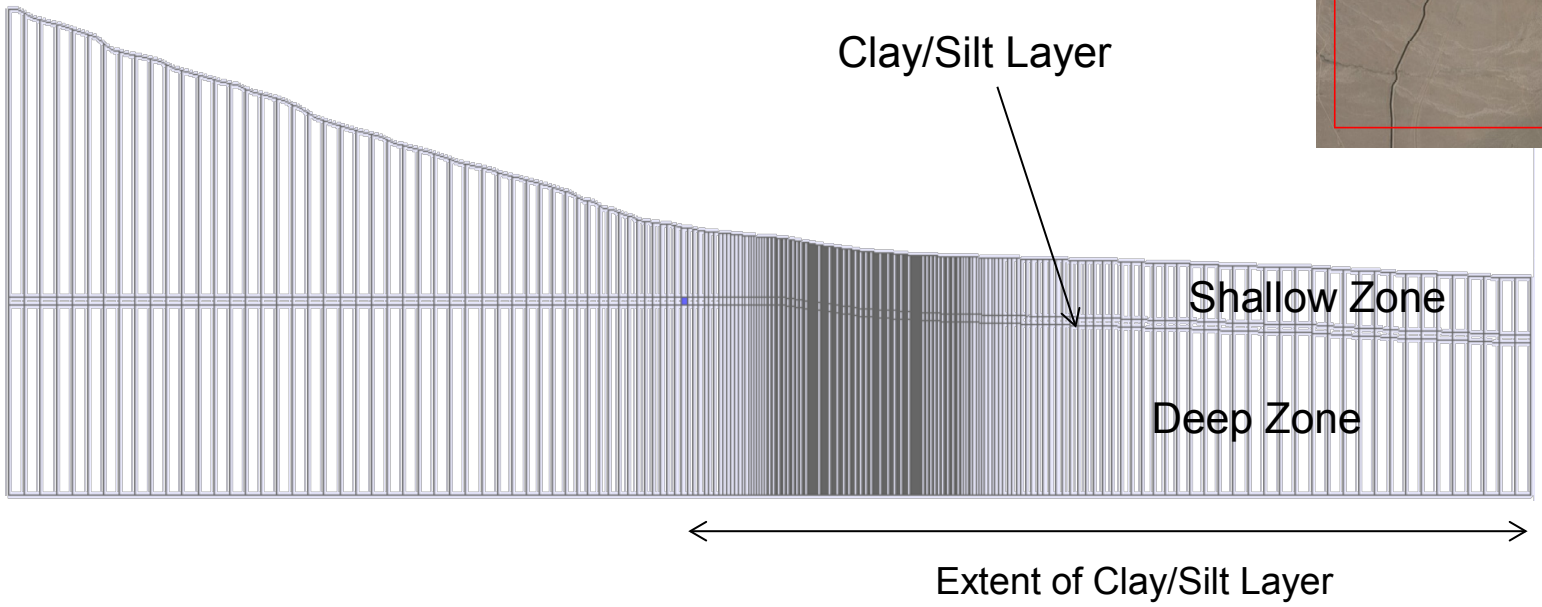
Geosyntec consultants

SB0794 | February 2017

Figure **A-1**

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\model_domain.mxd





Notes:
Vertical Magnification = 5

200 ft

2,000 ft

Cross-Section

Model Domain

Model Domain – Cross-Section

Cabin Bar Ranch
Olancha, California

Geosyntec consultants

Oakland, CA | February 2017

Figure A-2

Legend

- Pond
- Monitoring Well
- Approximate Location of Spring-Line Fault

0 300 600 Feet

N

Monitoring Wells Used for Calibration

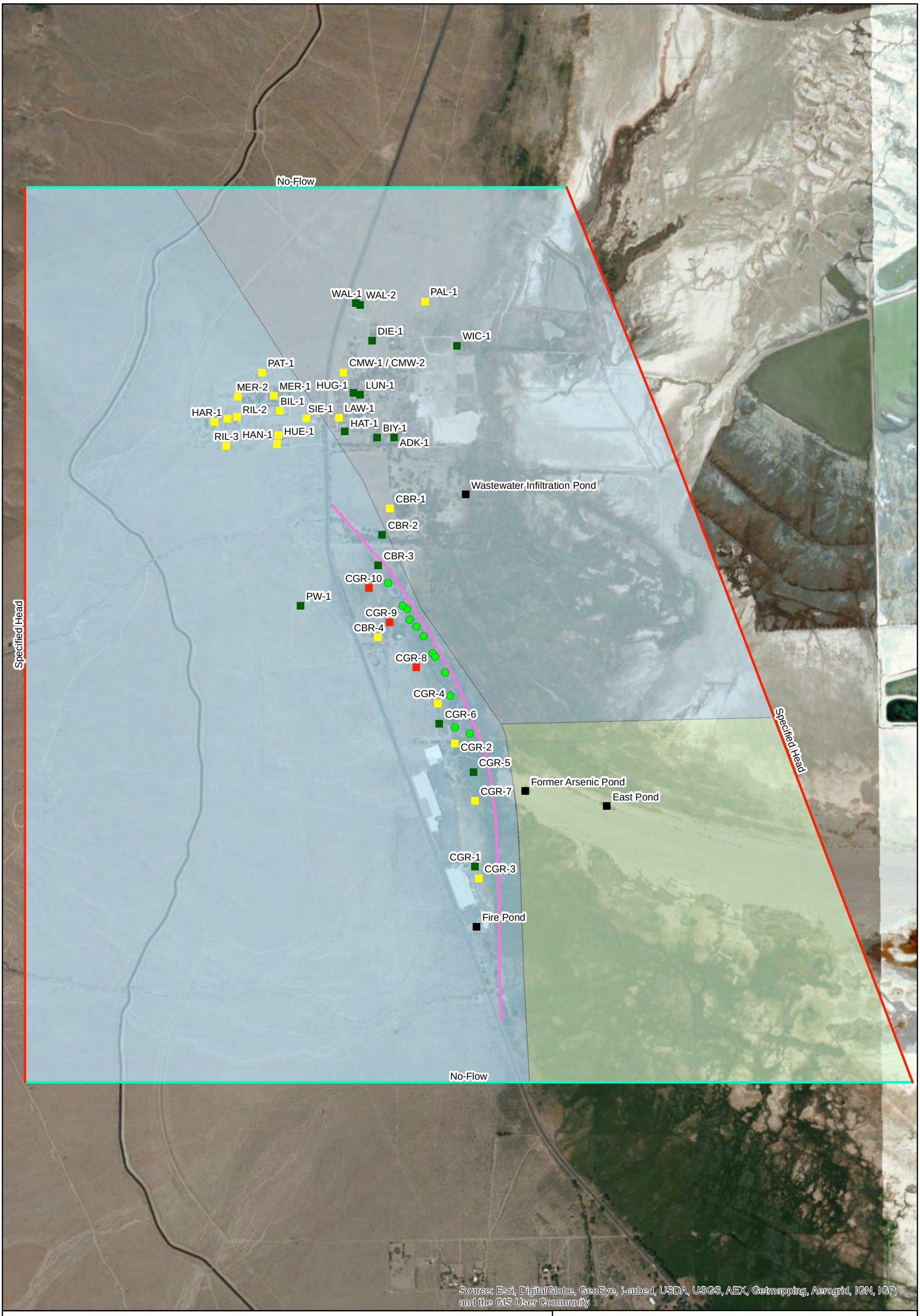
Cabin Bar Ranch, Olancha, California

Geosyntec consultants

SB0794 | February 2017

Figure **A-3**

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\Monitoring_Wells.mxd



Legend

- Drains (Springs)
- Pond
- Active Well
- Non-Active Well
- Additional Pumping Well
- Spring-line Fault

Hydraulic Conductivity Zone in Shallow Zone

- West of the Fault
- Northeast of the Fault
- Southeast of the Fault

N

0 600 1,200 Feet

Model Boundaries and Stresses

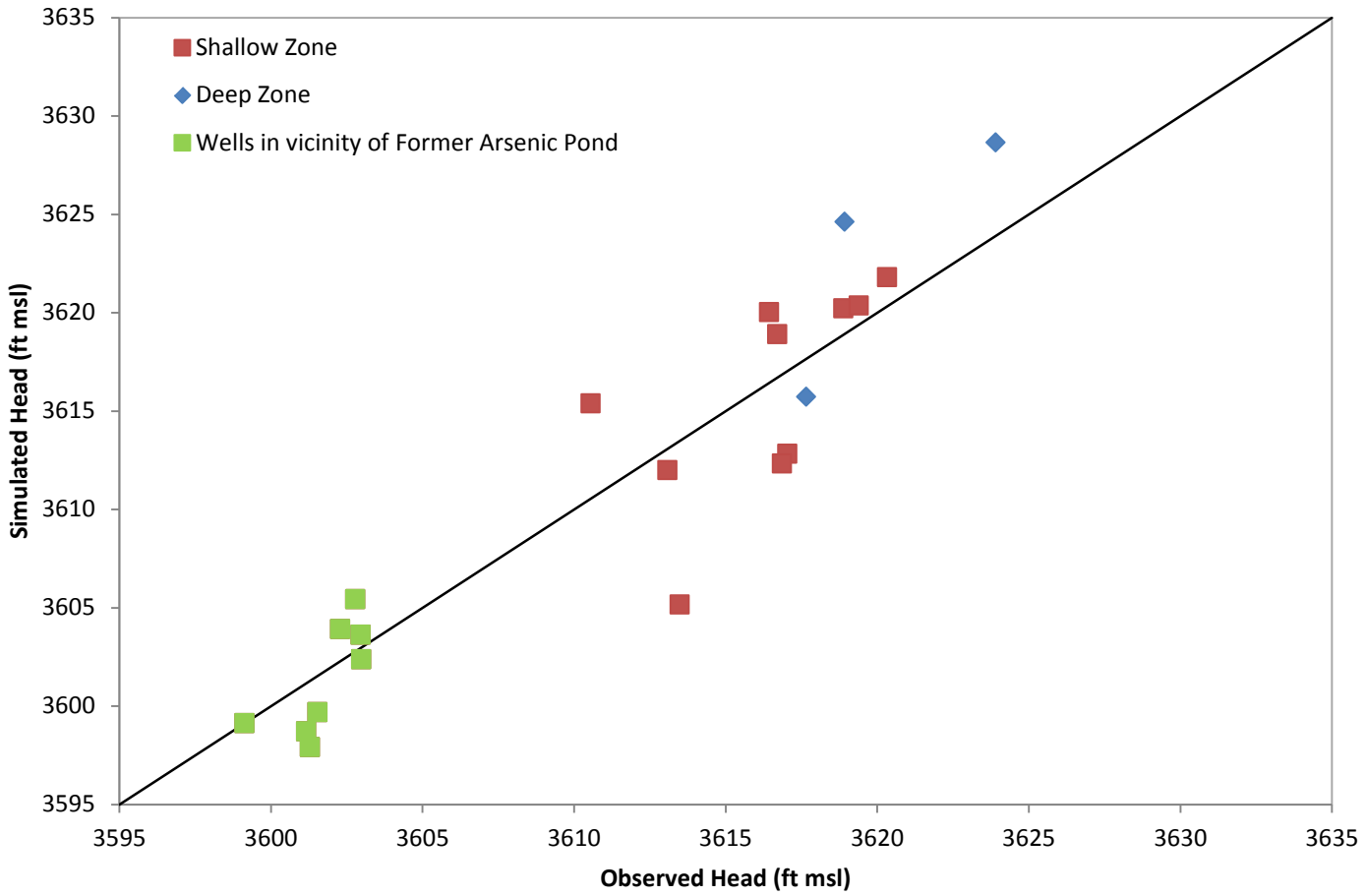
Cabin Bar Ranch, Olancha, California

Geosyntec consultants

SB0794 | February 2017

Figure **A-4**

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\model_boundary.mxd



Notes:
ft msl = feet mean sea level

Observed vs. Simulated Heads

Cabin Bar Ranch
Olancha, California

Geosyntec consultants

Oakland, CA | February 2017

Figure A-5

Legend

- Approximate Location of Spring-Line Fault
- Calibrated Head Contours (ft msl)
- Drains (Springs)
- Monitoring Well
- Pond

N

0 300 600 Feet

Calibrated Head Contours in Shallow Zone

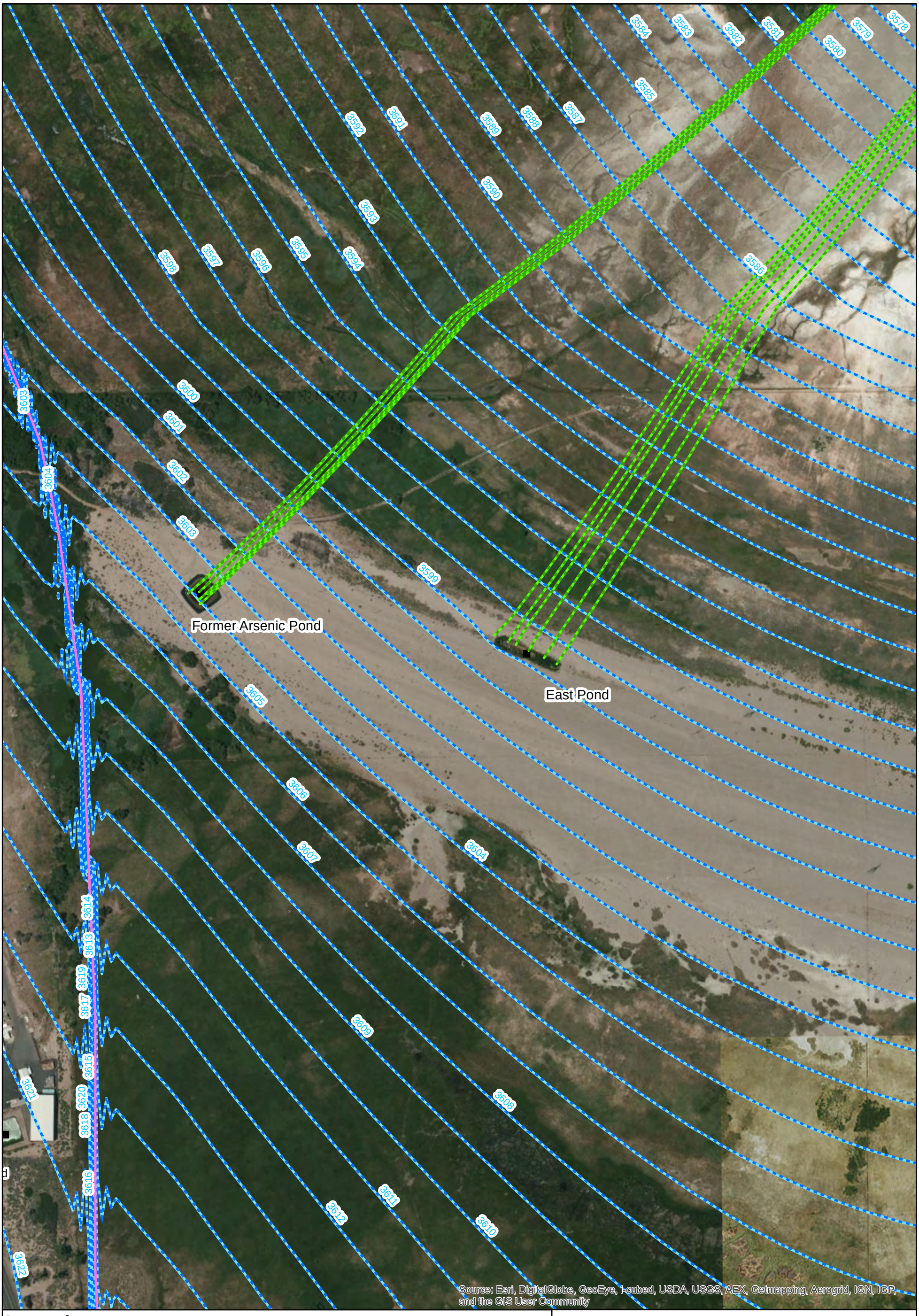
Cabin Bar Ranch, Olancha, California

Geosyntec consultants

SB0794 | February 2017

Figure **A-6**

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\Calibrated_Head.mxd



Legend

- Pond
- Approximate Location of Spring-Line Fault
- Water Level (typical flow rates)
- Water Level (maxl flow rates)
- Particle Tracks (typical flow rates)
- Particle Tracks (max flow rates)

0 150 300 Feet

N

Notes: Water level contour labels in feet mean sea level

Simulated Water Level and Particle Tracking under Historical Conditions

Cabin Bar Ranch, Olancha, California

Geosyntec consultants

SB0794 | February 2017

Figure A-7

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\Past_results.mxd

Former Arsenic Pond

East Pond

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Legend

- Pond
- Approximate Location of Spring-Line Fault
- Particle Tracks (max flow rates)
- Water Level (max flow rates)

0 150 300 Feet

N

Notes: Water level contour labels in feet mean sea level

Simulated Water Level and Particle Tracking under Historical Conditions using Lower Conductivity Values

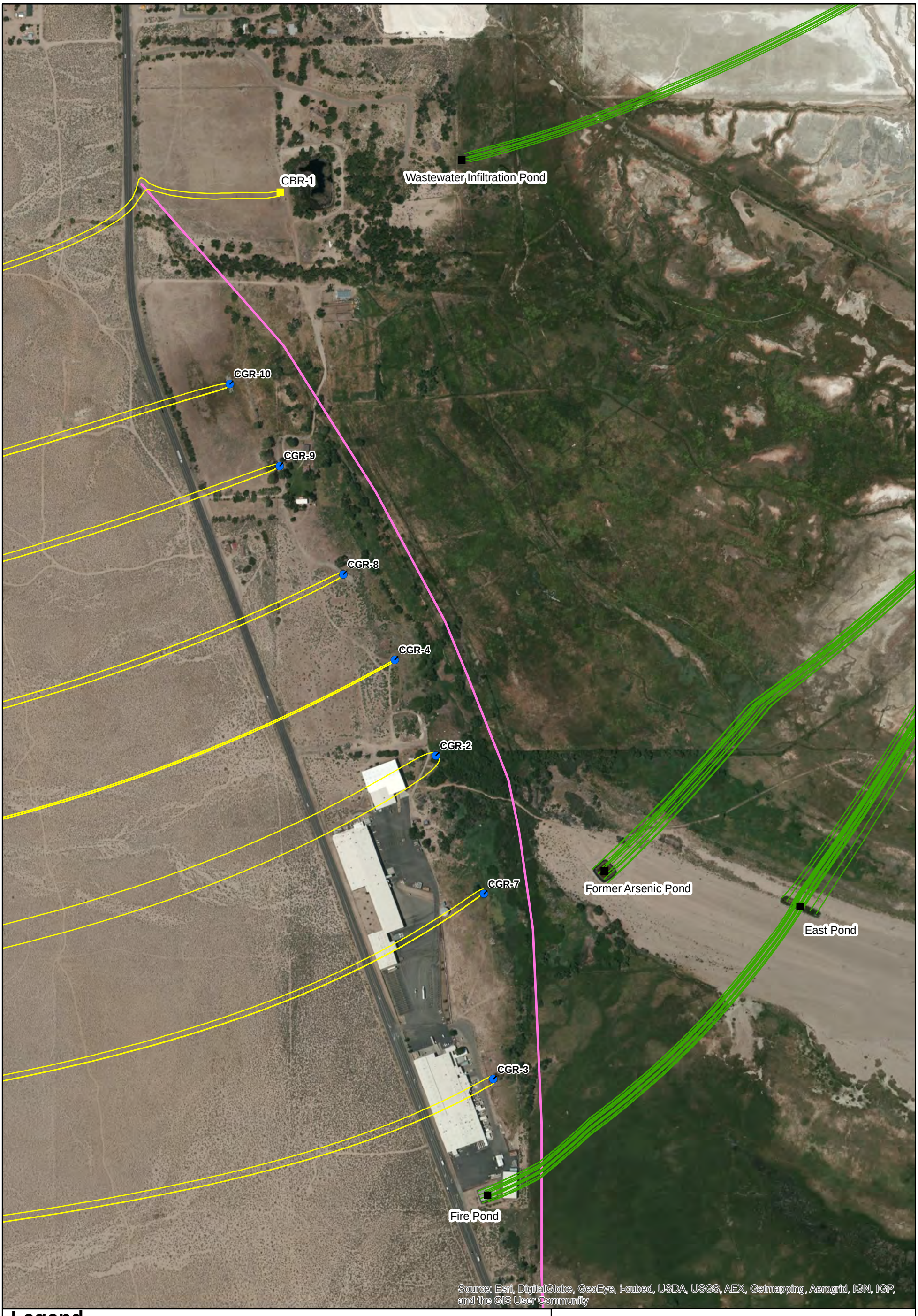
Cabin Bar Ranch, Olancha, California

Geosyntec consultants

SB0794 | February 2017

Figure **A-8**

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\Past_results_K100.mxd



Legend

- Pond
- Active Well
- Particle Track
- Particle Capture Zone
- Approximate Location of Spring-Line Fault

0 300 600 Feet

N

Simulated Capture Zone and Particle Tracking under Future Conditions

Cabin Bar Ranch, Olancha, California

Geosyntec consultants

SB0794 | February 2017

Figure **A-9**

\\Oakland-01\data\PRJ2003REM\Olancha\Nov 2016 Evaluation\Report\Figures\GIS\Project\Future_results.mxd

APPENDIX B

WELL PERMITS

S16-029W

INYO COUNTY ENVIRONMENTAL HEALTH SERVICES

P. O. Box 427, Independence, CA 93526
(760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514
(760) 873-7866 • Fax (760) 873-3236

WELL PERMIT APPLICATION

Permit No

TYPE OF WORK (Check)	USE	EQUIPMENT (Check)
New Well ☑ Repair or Modification ☐ Destruction ☐	Domestic ☐ Test Well ☐ Irrigation ☐ Municipal ☐ Monitoring ☑ Other ☐ MW-10	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

PROPOSED WELL DEPTH	PROPOSED CASING
~~20~~ 26 Feet	Steel ☐ Other PVC Diameter 2 inch Wall or Gage Sch 40

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to ~~12~~ 9 Feet	Neat Cement ~~☑~~ Bentonite Clay ☒ 6-9' PorHand/Bent Grout ☒ 0-6' Concrete ☐

KC 9-29-16

PHYSICAL SITE ADDRESS:	DATE OF WORK
1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-470-08 00	Start 8/22/15 Completion 8/31/15
NAME OF WELL OWNER: Crystal Geyser Roxane, LLC **MAILING ADDRESS:** 1210 S US Highway 395 Olancha, CA 93549 **PHONE NUMBER:**	**NAME OF WELL DRILLER:** Gregg Drilling and Testing, Inc **BUSINESS ADDRESS:** 2726 Walnut Ave Signal Hill, CA 90755 **PHONE NUMBER:** 562-427-6899

(FOR OFFICE USE ONLY)
DISPOSITION OF APPLICATION

☐ APPROVED ☐ DENIED

☑ APPROVED WITH CONDITIONS LISTED:

☐ Minimum _____ ft. seal of annular space(minimum 2 inches) is required and must be witnessed by Inyo County Environmental Health Services.

☑ A concrete pad shall be placed around the well casing that extends at least two feet laterally in all directions from the outside of the well boring and is a minimum of 4 inches thick. The pad must be sloped away from the well casing.

☑ Well driller's log shall be submitted to Inyo County Environmental Health Services within 30 days of completion of the well.

☑ Call for inspections

Inyo County Environmental Health Services recommends that an acceptable bacteriological sample be obtained after the well is completed.

C-57 LICENSE NUMBER:
485165

Cash Deposit ☐
Bond Posted ☐

$151.00 Fee paid on 8/8/16 Receipt No. 558499

I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.

LICENSED WELL DRILLER'S SIGNATURE

8-1-16
DATE

Site Approval/Permit Application Approval — Marvin Moskowitz — 8/16/16 Date

Construction Inspection — Marvin Moskowitz — 8/24/16 Date

Final Approval — Marvin Moskowitz — 9/1/16 Date

S16-03000

INYO COUNTY ENVIRONMENTAL HEALTH SERVICES

P. O. Box 427, Independence, CA 93526
(760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514
(760) 873-7868 • Fax (760) 873-3236

WELL PERMIT APPLICATION

Permit No.

TYPE OF WORK (Check)	USE	EQUIPMENT (Check)
New Well ☑ Repair or Modification ☐ Destruction ☐	Domestic ☐ Test Well ☐ Irrigation ☐ Municipal ☐ Monitoring ☑ Other ☐ MW-11	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

PROPOSED WELL DEPTH	PROPOSED CASING
11 Feet	Steel ☐ Other PVC Diameter 2 Inch Wall or Gage Sch-40

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 4 Feet	Neat Cement ☑ Bentonite Clay ☒ 3-4' Portland/Bent. Grout ☒ 0-3' Concrete ☐

KC 8-29-16

PHYSICAL SITE ADDRESS:
1210 S. US Highway 395
Olancha, CA 93549
ASSESSOR'S PARCEL NO.
033-470-08-00

DATE OF WORK
Start 8/22/15
Completion 8/31/15

NAME OF WELL OWNER:
Crystal Geyser Roxane, LLC

MAILING ADDRESS:
1210 S. US Highway 395
Olancha, CA 93549
PHONE NUMBER:

NAME OF WELL DRILLER:
Gregg Drilling and Testing, Inc.

BUSINESS ADDRESS:
2726 Walnut Ave.
Signal Hill, CA 90755
PHONE NUMBER: 562-427-6899v

(FOR OFFICE USE ONLY)
DISPOSITION OF APPLICATION

☐ APPROVED ☐ DENIED

☑ APPROVED WITH CONDITIONS LISTED:

☐ Minimum _____ ft. seal of annular space(minimum 2 inches) is required and must be witnessed by Inyo County Environmental Health Services.

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☑ Well driller's log shall be submitted to Inyo County Environmental Health Services within 30 days of completion of the well.

☑ Call for inspections

Inyo County Environmental Health Services recommends that an acceptable bacteriological sample be obtained after the well is completed.

C-57 LICENSE NUMBER:
485165

Cash Deposit ☐
Bond Posted ☐

$151.00 Fee paid on 8/8/16 Receipt No. 558499

I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.

John Gill
LICENSED WELL DRILLER'S SIGNATURE

8-1-16
DATE

Marvin Moskovit 8/16/16
Site Approval/Permit Application Approval Date

Marvin Moskovit 8/30/16
Construction Inspection Date

Marvin Moskovit 9/1/16
Final Approval Date

S16-031W

INYO COUNTY ENVIRONMENTAL HEALTH SERVICES

P. O. Box 427, Independence, CA 93526
(760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514
(760) 873-7866 • Fax (760) 873-3236

WELL PERMIT APPLICATION

Permit No.

TYPE OF WORK (Check)	USE	EQUIPMENT (Check)
New Well ☑ Repair or Modification ☐ Destruction ☐	Domestic ☐ Test Well ☐ Irrigation ☐ Municipal ☐ Monitoring ☑ Other ☐ MW 12	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

PROPOSED WELL DEPTH	PROPOSED CASING
~~26~~ 70.5 Feet	Steel ☐ Other PVC Diameter 2 inch Wall or Gage Sch 40

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to ~~8~~ 4 Feet	Neat Cement ☑ Bentonite Clay ☒ Portland Grout ☒ 0-3' Concrete ☐

3-4' KC 8-30-16

PHYSICAL SITE ADDRESS:	DATE OF WORK
1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-170-08-00	Start 8/22/15 Completion 8/31/15

NAME OF WELL OWNER:	NAME OF WELL DRILLER:
Crystal Geyser Roxane, LLC	Gregg Drilling and Testing, Inc.
MAILING ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 PHONE NUMBER:	BUSINESS ADDRESS: 2726 Walnut Ave. Signal Hill, CA 90755 PHONE NUMBER: 562-427-6899

(FOR OFFICE USE ONLY)
DISPOSITION OF APPLICATION

☐ APPROVED ☐ DENIED

☑ APPROVED WITH CONDITIONS LISTED:

☐ Minimum _____ ft. seal of annuler space(minimum 2 inches) is required and must be witnessed by Inyo County Environmental Health Services.

☑ A concrete pad shall be placed around the well casing that extends at least two feet laterally in all directions from the outside of the well boring and is a minimum of 4 inches thick. The pad must be sloped away from the well casing.

☑ Well driller's log shall be submitted to Inyo County Environmental Health Services within 30 days of completion of the well.

☑ Call for inspections

Inyo County Environmental Health Services recommends that an acceptable bacteriological sample be obtained after the well is completed.

C-57 LICENSE NUMBER: 485165

Cash Deposit ☐
Bond Posted ☐

$151.00 Fee paid on 8/8/16 Receipt No. 558499

I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.

LICENSED WELL DRILLER'S SIGNATURE

8-1-16
DATE

Site Approval/Permit Application Approval — Date 8/16/16

Construction Inspection — Date 8/30/16

Final Approval — Date 9/6/16

S16-032W

INYO COUNTY ENVIRONMENTAL HEALTH SERVICES

P. O. Box 427, Independence, CA 93526
(760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514
(760) 873-7868 • Fax (760) 873-3236

WELL PERMIT APPLICATION

Permit No

TYPE OF WORK (Check)	USE	EQUIPMENT (Check)
New Well ☑ Repair or Modification ☐ Destruction ☐	Domestic ☐ Test Well ☐ Irrigation ☐ Municipal ☐ Monitoring ☑ Other ☐ MW-13	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

PROPOSED WELL DEPTH	PROPOSED CASING
~~11~~ 11.5 Feet	Steel ☐ Other PVC Diameter 2 inch Wall or Gage Sch 40

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to ~~8~~ 4 Feet	Neat Cement ☑ Bentonite Clay ☒ 3-4' Portland/Bent Grout ☒ 0-3' Concrete ☐

KC 8-29-16

PHYSICAL SITE ADDRESS:	DATE OF WORK
1210 S US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-470-08-00	Start 8/22/15 Completion 8/31/15
NAME OF WELL OWNER: Crystal Geyser Roxane, LLC **MAILING ADDRESS:** 1210 S US Highway 395 Olancha, CA 93549 **PHONE NUMBER:**	**NAME OF WELL DRILLER:** Gregg Drilling and Testing, Inc. **BUSINESS ADDRESS:** 2726 Walnut Ave. Signal Hill, CA 90755 **PHONE NUMBER:** 562-427-6899

(FOR OFFICE USE ONLY)
DISPOSITION OF APPLICATION

☐ APPROVED ☐ DENIED

☑ APPROVED WITH CONDITIONS LISTED:

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☑ Call for inspections

Inyo County Environmental Health Services recommends that an acceptable bacteriological sample be obtained after the well is completed.

C-57 LICENSE NUMBER:
485165

Cash Deposit ☐
Bond Posted ☐

$ 151.00 Fee paid on 8/8/16 Receipt No. 558499

I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.

LICENSED WELL DRILLER'S SIGNATURE

8-1-16
DATE

Site Approval/Permit Application Approval — Date 8/16/16

Construction Inspection — Date 8/30/16

Final Approval — Date 9/1/16

S16-033W

INYO COUNTY ENVIRONMENTAL HEALTH SERVICES

P. O. Box 427, Independence, CA 93526
(760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514
(760) 873-7868 • Fax (760) 873-3236

WELL PERMIT APPLICATION

Permit No.

TYPE OF WORK (Check)	USE	EQUIPMENT (Check)
New Well ☑ Repair or Modification ☐ Destruction ☐	Domestic ☐ Test Well ☐ Irrigation ☐ Municipal ☐ Monitoring ☑ Other ☐ MW-14	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

PROPOSED WELL DEPTH	PROPOSED CASING
~~15~~ 15.5 Feet	Steel ☐ Other PVC Diameter 2 inch Wall or Gage Sch 10

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to ~~5~~ 4 Feet	Neat Cement ☑ Bentonite Clay ☒ 3-4' Portland/Bent. Grout ☒ 0-3' Concrete ☐ KC 8-30-16

PHYSICAL SITE ADDRESS:
1210 S. US Highway 395
Olancha, CA 93549

ASSESSOR'S PARCEL NO.
033-470-08-00

DATE OF WORK
Start 8/22/15
Completion 8/31/15

NAME OF WELL OWNER:
Crystal Geyser Roxane, LLC

MAILING ADDRESS:
1210 S. US Highway 395
Olancha, CA 93549

PHONE NUMBER:

NAME OF WELL DRILLER:
Gregg Drilling and Testing, Inc.

BUSINESS ADDRESS:
2726 Walnut Ave.
Signal Hill, CA 90755

PHONE NUMBER: 562-427-6899

(FOR OFFICE USE ONLY)
DISPOSITION OF APPLICATION

☐ APPROVED ☐ DENIED

☑ APPROVED WITH CONDITIONS LISTED:

☐ Minimum _____ ft. seal of annular space(minimum 2 inches) is required and must be witnessed by Inyo County Environmental Health Services.

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☑ Call for inspections

Inyo County Environmental Health Services recommends that an acceptable bacteriological sample be obtained after the well is completed.

C-57 LICENSE NUMBER:
485165

Cash Deposit ☐
Bond Posted ☐

$151.00 Fee paid on 8/8/16 Receipt No: 558499

I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.

LICENSED WELL DRILLER'S SIGNATURE

8-1-16
DATE

Marilyn Mosbrucker 8/16/16
Site Approval/Permit Application Approval Date

Marilyn Mosbrucker 8/30/16
Construction Inspection Date

Marilyn Mosbrucker 9/1/16
Final Approval Date

S16-034W

INYO COUNTY ENVIRONMENTAL HEALTH SERVICES

P. O. Box 427, Independence, CA 93526
(760) 878-0238 • Fax (760) 878-0239

207 W. South Street, Bishop, CA 93514
(760) 873-7866 • Fax (760) 873-3236

WELL PERMIT APPLICATION

Permit No.

TYPE OF WORK (Check)	USE	EQUIPMENT (Check)
New Well ☑ Repair or Modification ☐ Destruction ☐	Domestic ☐ Test Well ☐ Irrigation ☐ Municipal ☐ Monitoring ☑ Other ☐ MW-15	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

PROPOSED WELL DEPTH	PROPOSED CASING
~~40~~ 49 Feet	Steel ☐ Other PVC Diameter 2 inch Wall or Gage Sch 40

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to ~~22~~ 41 Feet	Neat Cement ☑ Bentonite Clay ☒ Portland/Bent. Grout ☒ 0-38' Concrete ☐

38-41' KC 8-26-16

PHYSICAL SITE ADDRESS:	DATE OF WORK
1210 S. US Highway 395 Olancha, CA 93549 ASSESSOR'S PARCEL NO. 033-170-08-00	Start 8/22/15 Completion 8/31/15

NAME OF WELL OWNER:	NAME OF WELL DRILLER:
Crystal Geyser Roxane, LLC	Gregg Drilling and Testing, Inc.
MAILING ADDRESS: 1210 S. US Highway 395 Olancha, CA 93549 PHONE NUMBER:	BUSINESS ADDRESS: 2726 Walnut Ave. Signal Hill, CA 90755 PHONE NUMBER: 562-427-6899

(FOR OFFICE USE ONLY)
DISPOSITION OF APPLICATION

☐ APPROVED ☐ DENIED

☑ APPROVED WITH CONDITIONS LISTED:

☐ Minimum _____ ft. seal of annular space(minimum 2 inches) is required and must be witnessed by Inyo County Environmental Health Services.

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☑ Call for inspections

Inyo County Environmental Health Services recommends that an acceptable bacteriological sample be obtained after the well is completed.

C-57 LICENSE NUMBER: 485165

Cash Deposit ☐
Bond Posted ☐

$151.00 Fee paid on 8/8/16 Receipt No 558499

I hereby agree to comply with all regulations of the Department of Environmental Health Services and with all ordinances and laws of Inyo County and of the State of California pertaining to well construction, repair, modification and destruction at the time of commencement of work.

LICENSED WELL DRILLER'S SIGNATURE

8-1-16
DATE

Marvin Moskowitz 8/16/16
Site Approval/Permit Application Approval — Date

Marvin Moskowitz 8/20/16
Construction Inspection — Date

Marvin Moskowitz 9/1/16
Final Approval — Date

APPENDIX C

LITHOLOGIC BORING LOGS AND WELL COMPLETION LOGS

Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING B-01 **SHEET** 1 OF 2
START DRILL DATE Aug 24, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE						COMMENTS (1) Rig Behavior 2) Air Monitoring
						SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	
	Surface road; 4" of road gravel at surface									0.0	1320	
	Well graded SAND (SW); light olive brown (2.5Y 5/3); dry; fine to coarse sand; trace fine gravel; (5,95,0); loose; no odor or staining											Hand Auguer to 5 ft-bgs
5	Same as above			Soil sample collected at 5 ft-bgs		S-1			70	0.0	0710	
									85		0717	
10				Soil sample collected at 10 ft-bgs		S-2						
	Well graded SAND with silt (SW-SM); light olive brown (2.5Y 5/4); dry to moist; fine to coarse sand; (0, 90, 10); loose; no odor or staining											
	Well graded SAND (SW); yellowish brown (10YR 6/3); moist; fine to coarse sand; (0,95,5); loose, no odor or staining								70		0723	
15	Sandy SILT (ML); dark yellowish brown (10YR 4/6); moist; trace clay; fine to coarse sand											

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING B-01 **SHEET** 2 OF 2
START DRILL DATE Aug 24, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	(0,45,55); low to medium plasticity			Soil sample collected at 15 ft-bgs		S-3						
	Well graded SAND (SW); strong brown (7.5YR 5/6); moist; fine to coarse sand; fine gravel; (5,90,5); iron oxide stained silt, up to 5%; loose, no odor or staining								90		0726	
	Poorly graded SAND (SP); dark yellowish brown (10YR 4/6); moist; fine to medium sand; (0,95,5); medium dense; no odor or staining			Soil sample collected at 18 ft-bgs		S-4						
	Well graded SAND (SW); dark yellowish brown (10YR 4/6); wet; fine to coarse sand; (0,100,0); loose											
20											0731	End Boring at 21 ft-bgs
25												
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

NOTES:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING B-02 **SHEET** 1 OF 3
START DRILL DATE Aug 23, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 24, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND (SW) with gravel; light gray (10YR 7/2); dry; fine to coarse sand; fine to coarse gravel; (15,85,0); loose; no ordor or staining								60	-	0930	
	Same as above; except fine gravel and dry-moist								60		0940	
5										0.1		
	Well graded SAND (SW) with gravel; light yellowish brown (2.5Y 6/3); dry-moist; fine to coarse sand; fine to coarse gravel; (15,80,5); loose; no odor or staining								100		0950	
10	Same as above; moist; decreasing gravel (5,95,0)									0.1		
	Same as above; wet			Groundwater sampled at 12.25 ft-bgs		GW-1			100		1000	Hydropunch from 11 to 14 ft-bgs
	Lean CLAY (CL); light brownish gray (2.5Y, 6/3); wet; (0,0,100); transitioning to very dark gray (2.5Y 3/1); low plasticity											
15												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING B-02 **SHEET** 2 OF 3
START DRILL DATE Aug 23, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 24, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
										0.2		
	Well graded SAND (SW); very dark gray (2.5Y 3/1); wet; fine to coarse sand; (0,95,5); loose; 2" silty SAND (SM) layer at 16 ft-bgs (0,60,40)			Groundwater sampled at 15.5 ft-bgs		GW-2			100		1010	Hydropunch from 15.5 to 17.5 ft-bgs
	Sandy SILT (ML); very dark gray (2.5Y 3/1); wet; fine sand; (0, 40,60); low plasticity; very soft; no odor or staining											
20	Silt and CLAY (CL); very dark gray (2.5Y 3/1); Wet; (0,0,100); very soft; medium plasticity (0,0,100)								100	0.1	1015	
	Sandy SILT (ML); very dark gray (2.5Y 3/1); wet; fine sand; (0, 30, 70); rootlets; low plasticity; soft											
	Silty SAND (SM); dark greenish gray (5GY 4/1); wet; fine sand; (0, 70, 30); low plasticity; soft; medium density			Groundwater sampled at 23 ft-bgs		GW-3						Hydropunch from 23 to 25 ft-bgs
									100		1020	
25										0.3		
				Groundwater sampled at 25.5 ft-bgs		GW-4						hydropunch from 25.5 to 26.5 ft-bgs
	Poorly graded SAND with silt (SP-ML); very dark gray (N 3/); wet; fine sand; (0, 90, 10); medium dense; trace fine gravel; no odor or staining											
	SILT (ML); very dark gray (2.5Y 3/1); wet; fine sand; (0, 10, 90); low plasticity; soft; no odor or staining								100		1025	
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

NOTES:

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07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING B-02 **SHEET** 3 OF 3
START DRILL DATE Aug 23, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 24, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
										0.3		
	SILT (ML); very dark gray (2.5Y 3/1); wet; fine sand (0, 10, 90); low plasticity; soft; no odor or staining											Hydropunch attempted at 31-32 ft-bgs but no water encountered
									100		1036	
												Hydropunch attempted at 33-35 ft-bgs but no water encountered
35	SILT (ML) ; very dark gray (2.5Y 3/1); wet; fine sand; trace clay (0, 10, 90); medium to low plasticity; no odor or staining									0.2		
									100		1050	
40									100		1100	End boring at 40 ft-bgs
45												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER K. Agustsson
REVIEWER K. Coffman

NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES:

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-10 **SHEET** 1 OF 2
START DRILL DATE Aug 27, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 28, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND (SW); brown (10YR 5/3); dry; fine to coarse sand; (0,95,5); loose										1430	Hand auger to 5 ft-bgs
	Same as above; trace fine gravel (5, 90, 5)											
	Same as above; no gravel (0, 95, 5)											
5									80	0.0	1445	
	Silty SAND (SM); pale brown (10YR 6/3); dry; fine to coarse sand; trace fine gravel; (5,70,25); loose; nonplastic; no odor or staining											
	Well graded SAND (SW); pale brown (10YR 6/3); dry; fine to coarse sand; trace fine gravel (5, 90, 5)								70		1450	
10										0.1		
	Same as above; (0,95,5)											
	2" layer of SILT with Sand (ML); (0,20,80); non plastic											
	Well graded SAND with gravel (SW); light brown (7.5YR 6/3); dry; fine to coarse sand; fine to coarse gravel (15, 85, 0)								90		1455	
	Well graded SAND with silt (SW-SM); light brown (7.5YR 6/3); Dry; fine to coarse sand; trace gravel; (5, 85, 10); loose to medium dense											
15												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push/ HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman

NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES:

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-10 **SHEET** 2 OF 2
START DRILL DATE Aug 27, 16
FINISH DRILL DATE Aug 28, 16
LOCATION Olancha, CA
PROJECT CG Roxane Phase 3
NUMBER SB0794
ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6"	SAMPLE RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND with gravel (SW); light brown (7.5YR 6/3); dry; fine to coarse sand; fine to coarse gravel; (15, 85, 0)									0.0		
	SILT (ML); grayish brown (2.5Y 5/2); wet-moist; fine to medium sand; (0,10,90); no odor or staining											
	Well graded SAND (SW); strong brown (7.5YR 5/6); wet; fine to coarse sand; (0,100,0); loose								70	0.0	1505	
	1" SILT (ML) lense at 18.1 ft-bgs; (0,0,100); transitioning to 1" Silty SAND (SM) lense; fine to coarse sand (0,70,30)											
	Well graded SAND (SW); yellowish brown (10YR 5/6); wet; fine to coarse sand; (0,100,0); loose											
20	3" SILT (ML); dark grayish brown (2.5Y 4/2); wet; (0,0,100); firm to hard; non plastic;									0.0		
	Well graded SAND (SW); yellowish brown (10 YR 5/6); wet; fine to coarse sand; (0,100,0); loose											
	SILT (ML); (10YR 4/2); wet; (0,0,100); hard; nonplastic								95		1530	
	Well graded SAND (SW); light olive brown (2.5Y 5/3); wet; fine to coarse sand; (0,100,0) to (0,95,5) At 21.1 ft-bgs color change to dark yellowish brown (10YR 4/6)											
	increasing fines at 24 ft-bgs (0,95,5)											
25	Poorly graded SAND (SP); dark gray (2.5Y 4/1); wet; fine to medium sand; (0,100,0)											End boring @ 26 ft-bgs
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push/ HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES:

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07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-11 **SHEET** 1 OF 2
START DRILL DATE Aug 29, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 29, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	SILT with sand (ML); very dark gray (10YR 2/2); moist; fine to medium sand; (0,15,85); low to medium plasticity; trace organic material; trace clay								70		0755	
	Same as above; color change to black; more organic material											
	1" Gravel Lense (60,40,0) at 2.5 ft-bgs											
	Well graded SAND (SW); yellowish brown (10YR 5/4); moist-wet; fine to coarse sand; (0,100,0); loose											
	Sandy ORGANIC soil (OL); black (10YR 2/1); fine to coarse sand; (0,50,50); soft								60		0801	
5	Poorly graded SAND (SP); dark gray (N 4/); wet; fine to medium sand. (0,100,0); loose									0.0		
	Well graded SAND (SW); dark gray (N 4/); wet; (0,100,0); loose											
	Clayey SAND (SC); dark greenish gray (5GY 4/1); wet; fine to coarse sand (0,55,45); low to medium plasticity; soft								100		0805	
	Same as above; (0,85,15)											
	Silty SAND (SM); dark greenish gray (5GY 4/1); wet; fine to coarse sand; (0,65,35); nonplastic											
10										0.1		
	SILT (ML); dark greenish gray (5GY 4/1); wet; (0,0,100); firm; low plasticity								100		0810	
15												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-11 **SHEET** 2 OF 2
START DRILL DATE Aug 29, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 29, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6"	SAMPLE RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
										0.0		
	SILT (ML); dark greenish gray (5GY 4/1); wet; (0,0,100); hard; low plasticity								100		0815	
20										0.0	0820	End boring @ 20 ft-bgs
25												
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-12 **SHEET** 1 OF 2
START DRILL DATE Aug 25, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	SILT (ML); white (10YR 8/1); dry; (0,0,100); hard; no odor or staining								75		1435	
	Well graded GRAVEL with sand (GW); light brownish gray (10YR 6/2); dry; fine to coarse sand; fine to coarse gravel; (65,35,0); loose											
	Well graded SAND (SW); light brownish gray (10YR 6/2); dry; fine to coarse sand; fine gravel; (10,90,0); loose											
	SILT (ML); dark grayish brown (2.5Y 4/2); moist; (0,0,100); medium plasticity; firm; no odor or staining								85		1440	
5	Poorly graded SAND (SP); dark grayish brown (2.5Y 4/2); wet; fine to medium sand; (0,95,5); no odor or staining; loose									0.3		
	SILT (ML); dark grayish brown (2.5Y 4/2); moist; (0,0,100); medium plasticity; firm; no odor or staining											
	Poorly graded SAND (SP); dark grayish brown (2.5Y 4/2); wet; fine to medium sand; (0,95,5); loose											
	CLAY (CL); dark greenish gray (5GY 4/1); moist; (0,0,100); low plasticity; no odor or staining; hard			Groundwater sampled at 8 ft-bgs					95		1450	Hydropunch from 8 to 10 ft-bgs
	Poorly graded SAND (SP); dark greenish gray (GY 4/1); fine to medium sand; (0,100,0); no odor or staining; loose 1" SILT (ML) layer; Hard at 9 ft-bgs 1" SILT (ML) layer at 9.5 ft-bgs; Hard											
10	SILT (ML); dark greenish gray (GY 4/1); moist; (0,0,100)									0.2		
	Sandy SILT (ML); dark greenish gray (GY 4/1); moist; fine sand; (0,30,70); soft; nonplastic											
	Poorly graded SAND (SP); dark greenish gray (GY 4/1); wet; fine to medium sand; (0,100,0) Color change to black at 10.5 ft-bgs			Groundwater sampled at 11.5 ft-bgs					25		1455	Hydropunch from 11.5 to 12.5 ft-bgs
15												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-12 **SHEET** 2 OF 2
START DRILL DATE Aug 25, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6"	SAMPLE RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
										0.1		
	Sandy SILT (ML); black (2.5/1); wet; fine sand; (0,30,70); nonplastic; firm; no odor or staining								90		1500	
	SILT (ML); black (2.5/1); moist; (0,0,100); no odor or staining											
20										0.1	1525	End boring @ 20 ft-bgs
25												
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-13 **SHEET** 1 OF 2
START DRILL DATE Aug 28, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 28, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND with gravel (SW); light gray (10YR 7/2); dry; fine to coarse sand; (20,80,0); loose; no odor or staining										1105	Hand augered to 4 ft-bgs
									90		1115	
5	1" SILT (ML) lense at 5.5 ft-bgs; light gray (10YR 7/2); dry; (0,0,100); firm Well graded SAND with gravel (SW); light gray (10YR 7/2); moist; fine to coarse sand; (20,80,0); loose; no odor or staining 1" Poorly graded SAND (SP) lense at 6.5 ft-bgs; wet; (0, 95, 5)									0.1		
	Poorly graded GRAVEL with sand (GP); Light yellowish brown (10YR 6/3); wet; fine gravel; trace coarse gravel; fine to coarse sand; (60,40,0)								90		1120	
	Well graded SAND with Silt (SW-SM); dark brown (10YR 3/3); wet; fine to coarse sand; trace gravel; (5,85,10); loose											
	Silty SAND (SM) to sandy SILT (ML); light olive brown (2.5Y 5/3); wet; fine to coarse sand; (0, 50, 50); loose; nonplastic; soft											
10	Silty SAND(SM); light olive brown (2.5Y 5/3); wet; fine to very coarse sand; trace coarse gravel; (5,75,20); loose; nonplastic 1" Silt Lense (0,0,100) at 10t-bgs									0.0		
	Well graded SAND (SW); light olive brown (2.5Y 5/3); wet; coarse sand and gravel; (10,90,0);											
	SILT (ML); dark greenish gray (GY 4/1); wet; trace sand; (0,5,95); low to medium plasticity; firm; hard; no odor or staining; trace clay								100		1125	
	Poorly graded SAND (SP); dark greenish gray (GY 4/1); wet; fine to medium sand; trace medium sand; trace fine gravel; (0,100,0)			Groundwater sampled at 12.5 ft-bgs								Hydropunch from 12.5 to 13.75 ft-bgs
	Silty Sand with Gravel; dark gray (5Y 4/1); wet; fine to coarse sand; fine to coarse gravel; (15,65,20); firm; medium density; no odor or staining											
15	CLAY (CL); greenish gray (GY 6/1); moist; (0,0,100); medium plasticity											

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-13 **SHEET** 2 OF 2
START DRILL DATE Aug 28, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 28, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. (2) Soil/Rock Name (3) Color (4) Moisture (5) Grain Size (6) Percentage (7) Plasticity (8) Density/Consistency (9) Structure (10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6"	SAMPLE RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
	SILT (ML); dark greenish gray (GY 4/1); moist; trace clay; (0,0,100); firm to hard; non-plastic to low plasticity									0.1		
	No Recovery										1130	No recovery from 16 to 20 ft-bgs
20												End boring @ 20 ft-bgs
25												
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman

NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

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07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-14 **SHEET** 1 OF 2
START DRILL DATE Aug 30, 16
FINISH DRILL DATE Aug 30, 16
LOCATION Olancha, CA
PROJECT CG Roxane Phase 3
NUMBER SB0794
ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND with gravel (SW); light brownish gray (10YR 6/2); dry; fine to coarse sand; fine to coarse gravel; (30,70,0); loose								35		0755	
	at 4 ft-bgs Dry to moist								30		0800	
5												
	at 8 ft-bgs trace SILT (25,70,<5)								70		0805	
10												
	Well graded SAND (SW); yellowish brown (10YR 5/4); dry to moist; fine to coarse grained sand; fine to coarse gravel; (10,90,0); loose								80		0807	
	Same as above except wet to moist											
15												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-14 **SHEET** 2 OF 2
START DRILL DATE Aug 30, 16
FINISH DRILL DATE Aug 30, 16
LOCATION Olancha, CA
PROJECT CG Roxane Phase 3
NUMBER SB0794
ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND with silt (SW-SM); dark brown (10YR 3/3); wet to moist; fine to coarse sand; transitions to fine gravel; (5,85,10); loose											
	Silty SAND (SM); very dark gray (10YR 3/1); wet; fine to medium sand; (0,60,50); firm								100		0815	
	SILT to sandy SILT (ML); dark greenish gray (5GY 4/1); wet; fine sand; trace clay; (0,0,100) to (0,45,55); low plasticity			Groundwater sample collected at 18.5 ft-bgs		GW-1						hydropunch from 18.5 to 19.5 ft-bgs
20												End boring @ 20 ft-bgs
25												
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: Lithology obtained from 2" direct push boring located 5' from monitoring well location

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-15 **SHEET** 1 OF 4
START DRILL DATE Aug 24, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
	Well graded SAND (SW) with gravel; light brown gray (2.5Y 6/2); dry; fine to coarse sand; fine to coarse gravel; (15,85,0); loose; no odor or staining										1015	Hand auger to 4 ft-bgs
									75		1020	
5										0.0		
	at 5.5 ft-bgs increasing coarse gravel (25,75,0)											
	1" silty SAND (SM) lense at 7.5 ft-bgs; very dark gray (2.5Y 3/1); dry; fine to coarse sand; nonplastic; medium dense								70		1025	
10	Same as above; Moist									0.1		
	Same as above except wet; gravel decreases (0,100,0); color change to grayish brown (2.5Y 5/2)											Hydropunch attempted from 10.5 to 11.5 ft-bgs; no water encountered
	SILT (ML); black (2.5Y 2.5/1); wet; fine to coarse sand; (0,20,80); low plasticity; soft								90		1030	
	Well graded SAND with silt (SW-SM); black (2.5Y 2.5/1); fine to coarse sand (0,90,10); loose											Hydropunch attempted from 12.5 to 13 ft-bgs; no water encountered
	SILT (ML); black (2.5Y 2.5/1); wet; fine to coarse sand; (0,0,100); low plasticity; soft											
15	Well graded SAND (SW); dark gray (5Y 3/1); wet; fine to coarse sand; (0,100,0); loose; no odor or staining			Groundwater sampled at 14 ft-bgs								hydropunch from 14 to 15.5 ft-bgs

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

NOTES:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-15 **SHEET** 2 OF 4
START DRILL DATE Aug 24, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	SAMPLE TYPE	SAMPLE BLOWS PER 6"	SAMPLE RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
										0.0		
	SILT (ML); dark greenish gray (5G 4/1); moist; trace fine sand; (0,5,95); soft; no odor or staining; roots present								90		1035	Marshy odor
20	SILT (ML) with sand; same as above; fine sand; (0,20,80)								90	0.1	1045	Marshy odor
	SILT (ML); dark greenish gray (5G 4/1); moist; trace fine sand; (0,5,95); firm; no odor or staining;											
	Silty SAND (SM); very dark gray (5Y 3/1); wet; fine to medium sand; (0,60,40); loose; no odor or staining			Groundwater sampled at 24 ft-bgs					80		1100	hydropunch from 24 to 47 ft-bgs
25	SAND with silt to silty SAND (SP-SM); very dark gray (5Y 3/1); wet; fine to medium sand; (0,90,10); loose; no odor or staining									0.6		
	Poorly graded SAND with silt (SP-SM); very dark gray (5Y 3/1); wet; fine to medium sand; (0,90,10); loose; no odor or staining											
	SILT (ML); very dark gray (5Y 3/1); wet; fine sand; (0,10,90); low plasticity; no odor or staining								100		110	
30												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

NOTES:

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-15 **SHEET** 3 OF 4
START DRILL DATE Aug 24, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
										0.2		
	SILT (ML); very dark gray (5Y 3/1); wet; fine sand; (0,10,90); low plasticity; no odor or staining								100		1130	
35										0.1		
	SILT (ML); very dark gray (5Y 3/1); wet; fine sand; trace clay; trace sand; (0,10,90); low to medium plasticity; no odor or staining; firm								75		1320	
	2" layer of sandy SILT(ML) at 37.25 ft-bgs; wet; (0,40,60)											
	3" layer of sandy SILT (ML) at 38.5 ft-bgs; wet; (0,40,60)											
40									95	0.1	1330	
	1" layer with snail like shells present at 41 ft-bgs											
	1" layer of poorly graded SAND (SP) at 42.5 ft-bgs; very dark gray (5Y 3/1); wet; fine to medium sand; (0,95,5); loose; shells present											
	Well graded SAND (SW); very dark gray (5Y 3/1); wet; fine to coarse sand; (0,100,0); loose; no odor or staining; shells present; saturated								100		1350	
45												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL BORE 01/04

BOREHOLE LOG

BORING MW-15 **SHEET** 4 OF 4
START DRILL DATE Aug 24, 16
FINISH DRILL DATE Aug 25, 16
LOCATION Olancha, CA
PROJECT CG Roxane Phase 3
NUMBER SB0794
ELEVATION DATA:
GROUND SURF.
TOP OF CASING
DATUM NAD 1983

DEPTH (ft-bgs)	DESCRIPTION (1) Unit/Formation, Mem. 2) Soil/Rock Name 3) Color 4) Moisture 5) Grain Size 6) Percentage; 7) Plasticity 8) Density/Consistency 9) Structure 10) Other (Mineralization, Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE						COMMENTS (1) Rig Behavior 2) Air Monitoring
						SAMPLE NO.	TYPE	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	
										0.2		
	SILT (ML); very dark gray (5Y 3/1); wet; soft; fine sand; (0,5,95); no odor or staining								100		1400	
												End boring @ 49 ft-bgs
50												
55												
60												

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

NOTES:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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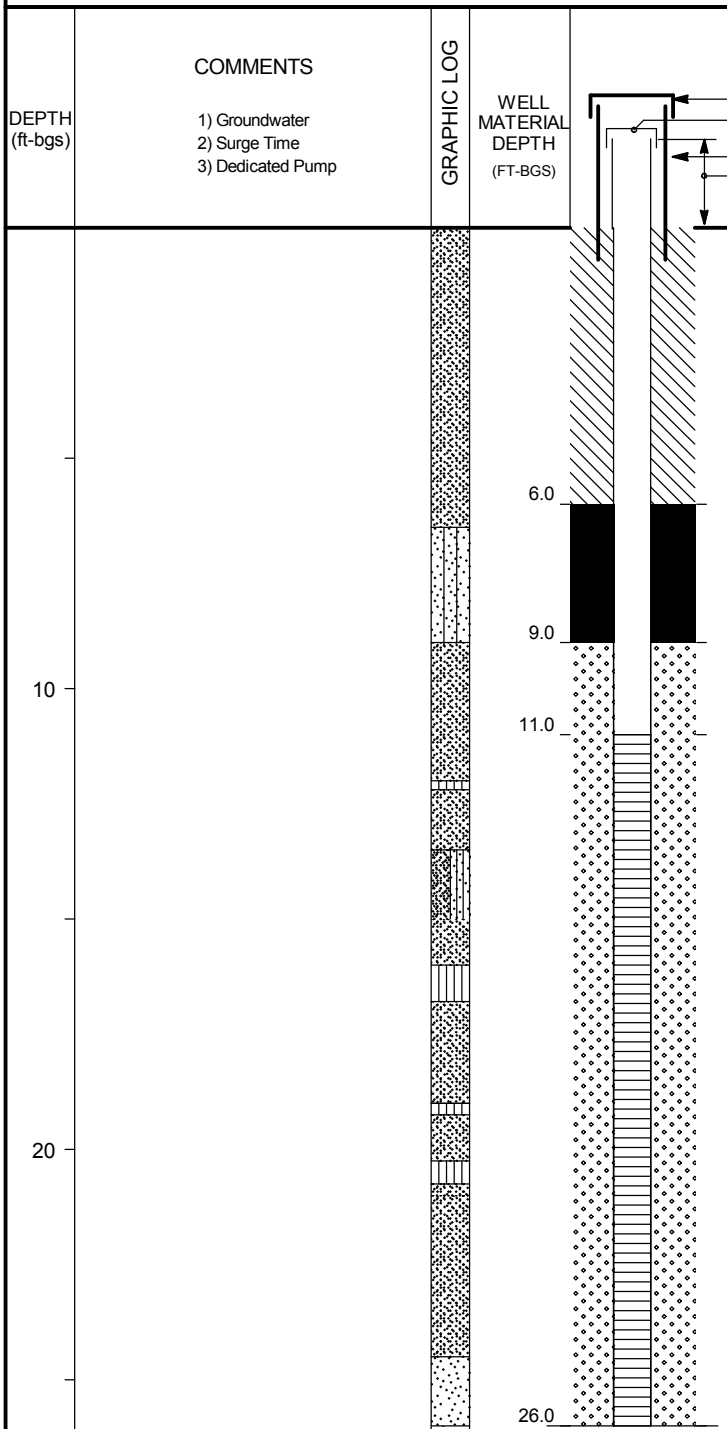
GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-10 **SHEET** 1 OF 1
START DRILL DATE Aug 27, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 28, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794



SURFACE COMPLETION:

TYPE	Raised Well Box
RISER HEIGHT	4'
RISER DIAM.	8"
WELL CASING HEIGHT	3'
CONCRETE PAD SIZE	4'X4'X4"

BORING DEPTH 26'
PILOT BORING DIAMETER 2"
REAM BORING DIAMETER 8"

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 8-28-2016
WELL DEPTH 26'
WELL CASING DIAMETER 2"
WELL CASING MATERIAL Schedule 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.01" slotted
TOP OF SCREEN 11'
BOTTOM OF SCREEN 26'
END CAP/SUMP LENGTH 2"

GROUT

TOP DEPTH 0'
TYPE/BRAND Portland Cement/bentonite mix
QUANTITY USED 150 lbs
VOLUME FLUID USED 15 gal
PLACEMENT METHOD Tremie

BENTONITE SEAL

TOP DEPTH 6'
TYPE/BRAND Bentonite Chips
QUANTITY USED 50 lbs
VOLUME FLUID USED 5 gal
SET-UP TIME 30 min
PLACEMENT METHOD downhole pour

TRANSITION SAND

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

SAND/GRAVEL PACK

TOP DEPTH 9'
TYPE/BRAND 2/12 CeMEX brand
QUANTITY USED 550 lbs
PLACEMENT METHOD downhole pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push/ HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

DEDICATED PUMP SYSTEM:
TYPE/BRAND: NA
MODEL: NA
CONTROLLER TYPE: NA

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL COMP AG 01/04

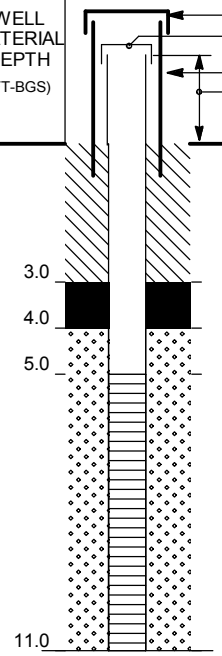
WELL CONSTRUCTION LOG

BORING MW-11 **SHEET** 1 OF 1
START DRILL DATE Aug 29, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 29, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs) | COMMENTS | GRAPHIC LOG | WELL MATERIAL DEPTH (FT-BGS)

COMMENTS
1) Groundwater
2) Surge Time
3) Dedicated Pump

Lithology obtained from 2" direct push boring located 5' from monitoring well location



SURFACE COMPLETION:

TYPE	Raised Well box
RISER HEIGHT	4'
RISER DIAM.	8"
WELL CASING HEIGHT	3'
CONCRETE PAD SIZE	4'X4'X4"

BORING DEPTH 20'
PILOT BORING DIAMETER
REAM BORING DIAMETER 8"

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 8-29-2016
WELL DEPTH 11'
WELL CASING DIAMETER 2"
WELL CASING MATERIAL Schedule 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.01" slotted
TOP OF SCREEN 5'
BOTTOM OF SCREEN 11'
END CAP/SUMP LENGTH 2"

GROUT

TOP DEPTH 0'
TYPE/BRAND Portland Cement/bentonite mix
QUANTITY USED 110 lbs
VOLUME FLUID USED 8 gal
PLACEMENT METHOD Tremie

BENTONITE SEAL

TOP DEPTH 3'
TYPE/BRAND Bentonite Chips
QUANTITY USED 100 lbs
VOLUME FLUID USED 5 gal
SET-UP TIME 30 min
PLACEMENT METHOD downhole pour

TRANSITION SAND

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

SAND/GRAVEL PACK

TOP DEPTH 4'
TYPE/BRAND 2/12 CeMEX brand
QUANTITY USED 250 lbs
PLACEMENT METHOD downhole pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER K. Coffman
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

DEDICATED PUMP SYSTEM:
TYPE/BRAND: NA
MODEL: NA
CONTROLLER TYPE: NA

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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GS FORM: WELL COMP AG 01/04

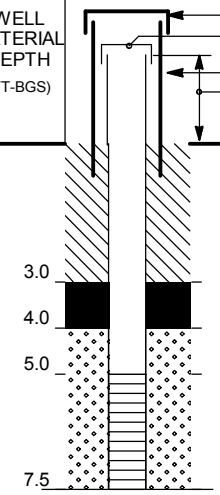
WELL CONSTRUCTION LOG

BORING MW-12 **SHEET** 1 OF 1
START DRILL DATE Aug 25, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs) | COMMENTS | GRAPHIC LOG | WELL MATERIAL DEPTH (FT-BGS)

COMMENTS
1) Groundwater
2) Surge Time
3) Dedicated Pump

Lithology obtained from 2" direct push boring located 5' from monitoring well location



SURFACE COMPLETION:

TYPE	Raised Well box
RISER HEIGHT	4'
RISER DIAM.	8"
WELL CASING HEIGHT	3'
CONCRETE PAD SIZE	4'X4'X4"

BORING DEPTH 20'
PILOT BORING DIAMETER
REAM BORING DIAMETER 8"

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 8-25-2016
WELL DEPTH 7.5'
WELL CASING DIAMETER 2"
WELL CASING MATERIAL Schedule 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.01" slotted
TOP OF SCREEN 5'
BOTTOM OF SCREEN 7.5'
END CAP/SUMP LENGTH 2"

GROUT

TOP DEPTH 0'
TYPE/BRAND Portland Cement/bentonite mix
QUANTITY USED 75 lbs
VOLUME FLUID USED 8 gal
PLACEMENT METHOD Tremie

BENTONITE SEAL

TOP DEPTH 3'
TYPE/BRAND Bentonite Chips
QUANTITY USED 50 lbs
VOLUME FLUID USED 5 gal
SET-UP TIME 30 min
PLACEMENT METHOD downhole pour

TRANSITION SAND

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

SAND/GRAVEL PACK

TOP DEPTH 4'
TYPE/BRAND 2/12 CeMEX brand
QUANTITY USED 250 lbs
PLACEMENT METHOD downhole pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

DEDICATED PUMP SYSTEM:
TYPE/BRAND: NA
MODEL: NA
CONTROLLER TYPE: NA

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

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Tel: (805) 897-3800
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GS FORM: WELL COMP AG 01/04

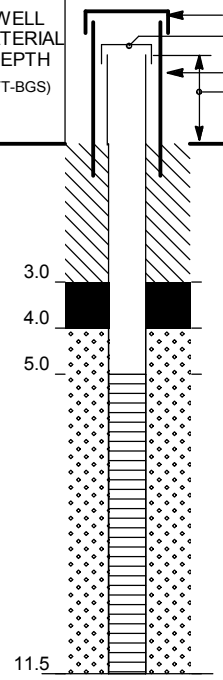
WELL CONSTRUCTION LOG

BORING MW-13 **SHEET** 1 OF 1
START DRILL DATE Aug 28, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 28, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs) | COMMENTS | GRAPHIC LOG | WELL MATERIAL DEPTH (FT-BGS)

COMMENTS
1) Groundwater
2) Surface Time
3) Dedicated Pump

Lithology obtained from 2" direct push boring located 5' from monitoring well location



SURFACE COMPLETION:

TYPE	Raised Well box
RISER HEIGHT	4'
RISER DIAM.	8"
WELL CASING HEIGHT	3'
CONCRETE PAD SIZE	4'X4'X4"

BORING DEPTH 20'
PILOT BORING DIAMETER
REAM BORING DIAMETER 8"

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 8-28-2016
WELL DEPTH 11.5'
WELL CASING DIAMETER 2"
WELL CASING MATERIAL Schedule 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.01" slotted
TOP OF SCREEN 5'
BOTTOM OF SCREEN 11.5'
END CAP/SUMP LENGTH 2"

GROUT

TOP DEPTH 0'
TYPE/BRAND Portland Cement/bentonite mix
QUANTITY USED 75 lbs
VOLUME FLUID USED 9 gal
PLACEMENT METHOD Tremie

BENTONITE SEAL

TOP DEPTH 3'
TYPE/BRAND Bentonite Chips
QUANTITY USED 25 lbs
VOLUME FLUID USED 2.5 gal
SET-UP TIME 30 min
PLACEMENT METHOD downhole pour

TRANSITION SAND

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

SAND/GRAVEL PACK

TOP DEPTH 4'
TYPE/BRAND 2/12 CeMEX brand
QUANTITY USED 350 lbs
PLACEMENT METHOD downhole pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

DEDICATED PUMP SYSTEM:
TYPE/BRAND: NA
MODEL: NA
CONTROLLER TYPE: NA

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

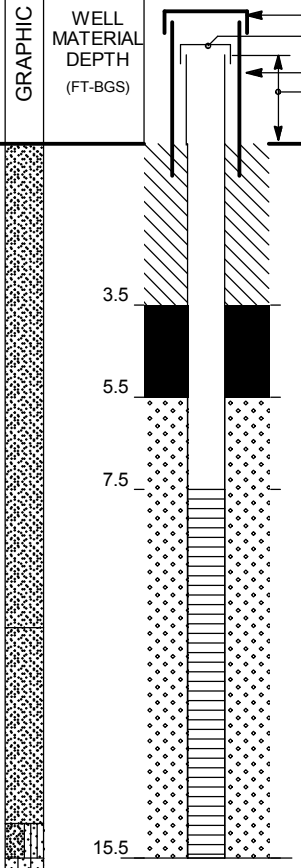
GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-14 **SHEET** 1 OF 1
START DRILL DATE Aug 30, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 30, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794

DEPTH (ft-bgs) | COMMENTS | GRAPHIC LOG | WELL MATERIAL DEPTH (FT-BGS)

COMMENTS
1) Groundwater
2) Surge Time
3) Dedicated Pump



Lithology obtained from 2" direct push boring located 5' from monitoring well location

SURFACE COMPLETION:

TYPE	Raised Well box
RISER HEIGHT	4'
RISER DIAM.	8"
WELL CASING HEIGHT	3'
CONCRETE PAD SIZE	4'X4'X4"

BORING DEPTH 20'
PILOT BORING DIAMETER
REAM BORING DIAMETER 8"

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 8-30-2016
WELL DEPTH 15.5'
WELL CASING DIAMETER 2"
WELL CASING MATERIAL Schedule 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.01" slotted
TOP OF SCREEN 7.5'
BOTTOM OF SCREEN 15.5'
END CAP/SUMP LENGTH 2"

GROUT

TOP DEPTH 0'
TYPE/BRAND Portland Cement/bentonite mix
QUANTITY USED 75 lbs
VOLUME FLUID USED 9 gal
PLACEMENT METHOD Tremie

BENTONITE SEAL

TOP DEPTH 3.5'
TYPE/BRAND Bentonite Chips
QUANTITY USED 50 lbs
VOLUME FLUID USED 2.5 gal
SET-UP TIME 30 min
PLACEMENT METHOD downhole pour

TRANSITION SAND

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

SAND/GRAVEL PACK

TOP DEPTH 5.5'
TYPE/BRAND 2/12 CeMEX brand
QUANTITY USED 350 lbs
PLACEMENT METHOD downhole pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

DEDICATED PUMP SYSTEM:
TYPE/BRAND: NA
MODEL: NA
CONTROLLER TYPE: NA

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

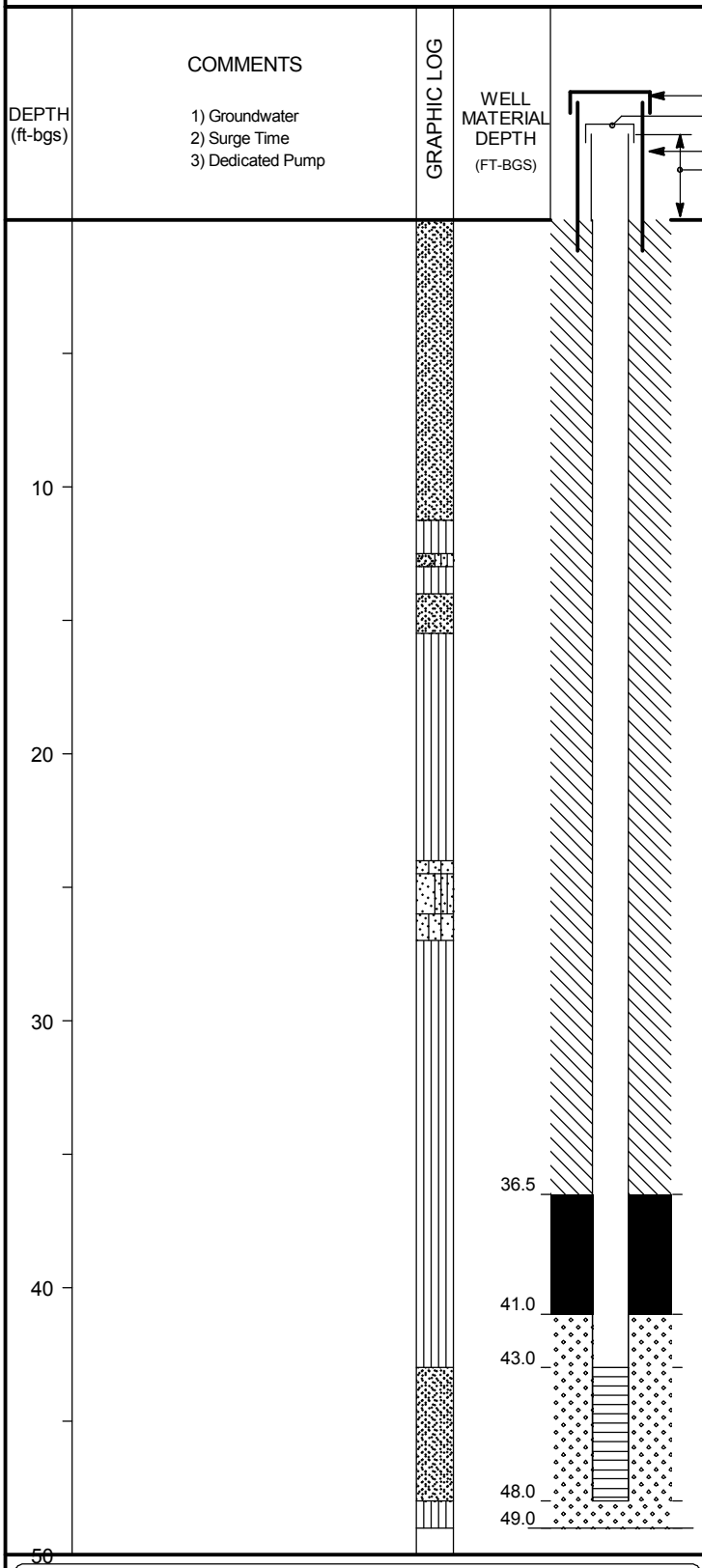
08-WELL_COMP_AG_CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-15 **SHEET** 1 OF 1
START DRILL DATE Aug 24, 16 **ELEVATION DATA:**
FINISH DRILL DATE Aug 25, 16 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 3 **DATUM** NAD 1983
NUMBER SB0794



SURFACE COMPLETION:

TYPE	Raised Well box
RISER HEIGHT	4'
RISER DIAM.	8"
WELL CASING HEIGHT	3'
CONCRETE PAD SIZE	4'X4'X4"

BORING DEPTH 49'
PILOT BORING DIAMETER 2"
REAM BORING DIAMETER 8"

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 8-25-2016
WELL DEPTH 48'
WELL CASING DIAMETER 2"
WELL CASING MATERIAL Schedule 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.01" slotted
TOP OF SCREEN 43'
BOTTOM OF SCREEN 48'
END CAP/SUMP LENGTH 2"

GROUT

TOP DEPTH 0'
TYPE/BRAND Portland Cement/bentonite mix
QUANTITY USED 700lbs
VOLUME FLUID USED 25 gal
PLACEMENT METHOD Tremie

BENTONITE SEAL

TOP DEPTH 36.5'
TYPE/BRAND Bentonite Pellets TR30
QUANTITY USED 50 lbs
VOLUME FLUID USED below water table
SET-UP TIME 30 min
PLACEMENT METHOD downhole pour

TRANSITION SAND

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

SAND/GRAVEL PACK

TOP DEPTH 41'
TYPE/BRAND 2/12 CeMEX brand
QUANTITY USED 250 lbs
PLACEMENT METHOD downhole pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND NA
QUANTITY USED NA
PLACEMENT METHOD NA

CONTRACTOR Gregg
EQUIPMENT M5T MARL
DRILL MTHD Direct Push / HSA
DIAMETER 2"/8"
LOGGER K. Agustsson
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S
REVIEWER K. Coffman

DEDICATED PUMP SYSTEM:
TYPE/BRAND: NA
MODEL: NA
CONTROLLER TYPE: NA

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 3 INVESTIGATION.GPJ GEOSNTEC.GDT 10/14/16

APPENDIX D

WELL DEVELOPMENT LOGS

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CGR - Phase III	MW10
PROJECT NO.	SITE: Olancha
	PREPARED BY: M. Cronin

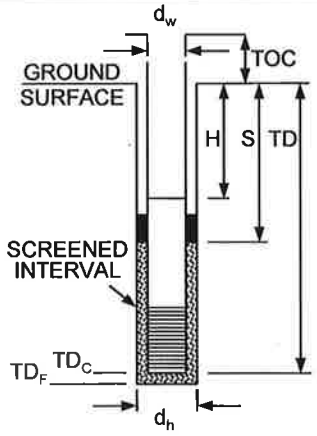
METHOD
PUMP
BAILER
OTHER

DEVELOPMENT CRITERIA: < 50 NTU Ideally ≤ 10 NTU.

REMARKS

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = _____
INSIDE DIAM d_wID = _____
OUTSIDE DIAM d_wOD = _____
HOLE DIAMETER d_h = _____
DEPTH TO:
SCREENED INTERVAL _____ TO _____
WATER LEVEL H = ~18.05
BASE OF SEAL S = 9
BASE OF CASING TD_C = _____
BASE OF FILTER PACK TD_F = 26
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{\quad}{2}\right)^2 (\quad - \quad) = \quad ft^3$$

FILTER PACK PORE VOLUME =

$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$

$$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$V_T = V_c + V_f = \quad + \quad = \quad ft^3 \times 7.48 \approx 20.88$ GAL

Casing ~3'

16.25

DEVELOPMENT LOG					TOTAL	WATER QUALITY					
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
											TOC.
8-30-16	1546	—	21.05'	—	—	—	—	—	—	—	30.19' Begin Bail
	1550			1.5	1.5	—	—	—	—	—	end Bail
	1552										start surge
	1600	—	—	—	—	—	—	—	—	—	end surge, start Bail
	1607	—	21.24	1.5	3.0	—	—	—	—	—	end Bail
	1612		~~23.52~~								
	1614	2	23.52	4	7.0	—	—	—	—	—	pump on @ 30 ft BTOC
	1616	2	23.98	4	11	7.46	0.130	>1000	21.58	184	
	1622	2	24.16	12	23	7.44	0.113	562	19.98	167	move pump to 28.5
	1628	2	24.29	12	35	—	—	—	—	—	visual Cloudy.
	1634	2	24.31	12	47	7.21	0.111	75.6	18.52	93	
	1643	2	24.30	18	65	7.14	0.111	49.8	18.32	74	
	1654	2	24.30	22	87	7.10	0.110	20.4	18.21	67	
	1704	2	24.30	20	107	7.06	0.111	20.9	17.97	48	
8-30-16	1712	2	24.30	16	—	—	—	40.1	—	—	end Day

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CGR - Phase III	MW-11
PROJECT NO.	SITE: Rancho.
	PREPARED BY: M. Cronin.

METHOD
- PUMP
- BAILER: ~~½~~ 1 3/4" SS.
- OTHER

DEVELOPMENT CRITERIA: Under 50 NTU ≤ 10 NTU preffered.

REMARKS

WELL CONSTRUCTION DATA (ft)

WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = _____

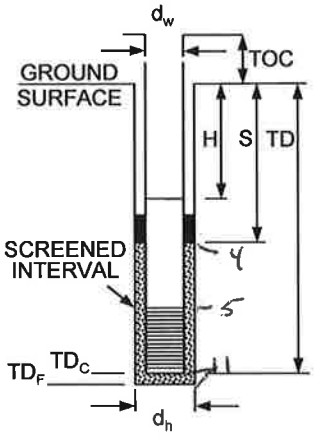
- INSIDE DIAM d_wID = _____
- OUTSIDE DIAM d_wOD = _____
- HOLE DIAMETER d_h = _____

DEPTH TO:

- SCREENED INTERVAL _____ TO _____
- WATER LEVEL H = _____
- BASE OF SEAL S = _____
- BASE OF CASING TD_C = _____

BASE OF FILTER PACK TD_F = _____

ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{\quad}{2}\right)^2 (\quad - \quad) = \quad ft^3$$

FILTER PACK PORE VOLUME =

$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$

$$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$V_T = V_c + V_f$ = ___ + ___ = ___ $ft^3 \times 7.48$ = ___ GAL

$5.4 \times \pi\left(\frac{8}{12}/2\right)^2 = 1.88\ ft^3 = 14.099$ Gal

DEVELOPMENT LOG					TOTAL	WATER QUALITY					Top of Casing.
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
8-30-16	0928		9.20								TD = 14.60
1	0929	—									Surge. Start
	0937	—									end Surge
	0945	—	9.95	—	2	—	—	—	—	—	start pump. ~~Pump~~
	0946	~2gpm		Pump	on	end	Cap.				well dry recharging
	0950	—	10.5								
	0951	—	10.34								
	0952	—									start pump/pump to dry
	0956	—	10.5								start pump/pump to dry slowly
	1002	—	10.5								start pump/end pump
	1009	—	10.5								start pump/end pump
	1016	—	10.5								start pump/end pump
	1023		10.5								
	1025	½	10.36	~~2.5~~	~15						raised pump to ~9ft bgs
	1029	½	10.89	2	17	8.18	1.41	507	25.38	156	~~Bottled~~
	1039	½	11.74	5	22	7.24	1.25	204	22.37	109	
	1049	½	11.94	5	27	7.32	1.27	700	21.51	100	
	1109	½	12.63	10	37	7.13	1.27	729	22.66	121	~~Pump stop~~
	1119	½		5	42						Pump stop at 1119
	1232	—	9.93	—	—	—	—	—	—	—	Pump on
	1237	¼	10.43	1.25	43.25	7.78	1.48	547	25.54	138	
	1257	¼	11.05	5	48.25	7.06	1.36	69	23.99	172	
	1317	¼	11.84	5	53.25	7.25	1.24	93.1	23.70	139	

14.60
- 9.20
5.40

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CGR - Phase III	MW-11
PROJECT NO.	SITE: Olancha
	PREPARED BY: M. Cramin

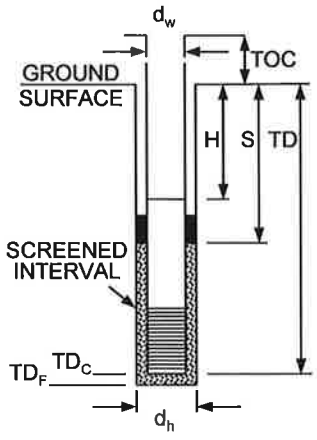
METHOD
PUMP _____
BAILER _____
OTHER _____

DEVELOPMENT CRITERIA: under 50 NTU ≤ 10 NTU preferred

REMARKS:

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = _____
INSIDE DIAM d_wID = _____
OUTSIDE DIAM d_wOD = _____
HOLE DIAMETER d_h = _____
DEPTH TO:
SCREENED INTERVAL _____ TO _____
WATER LEVEL H = _____
BASE OF SEAL S = _____
BASE OF CASING TD_C = _____
BASE OF FILTER PACK TD_F = _____
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{\quad}{2}\right)^2 (\quad - \quad) = \quad ft^3$$

FILTER PACK PORE VOLUME =

$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$

$$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$V_T = V_c + V_f$ = _____ + _____ = _____ $ft^3 \times 7.48$ = _____ GAL

DEVELOPMENT LOG					TOTAL	WATER QUALITY					COMMENTS
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	
8-30-16	1337	1/4	~~8~~ 8.22	~~58.35~~ 58.35	58.35	6.88	1.24	97.2	23.65	95	
8-30-16	1347	1/4	12.52	2.5 (inc)	60.75	6.71	1.25	148	23.01	84	
8-30-16	1402	—	—	4.25	65						well dry; pump off
8-30-16	1448		9.97								
8-30-16	1451	1/8									pump on
8-30-16	1458	1/2	11.01	3.5	65.5	7.31	1.47	126	24.38	128	
8-30-16	1506	1/2	~~12.5~~	4	69.5	—	—	—	—	—	pump moved
8-30-16	1509	—	10.40	—	—	—	—	—	—	—	
8-30-16	1512	—	10.21	—	—	—	—	—	—	—	end development

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME: CGR Phase III
WELL NO.: MW-12
PROJECT NO.: SB0794
SITE: CGR
PREPARED BY: K. Agustsson

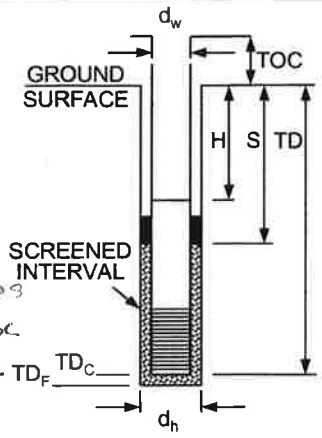
METHOD
PUMP: portable pump.
BAILER: 1.5"
OTHER:

DEVELOPMENT CRITERIA: <50 NTU ≤10 NTU ideally

REMARKS:

WELL CONSTRUCTION DATA (ft)

WELL CASING: TD = 10.94'
TOP OF CASING HEIGHT/DEPTH (TOC), = 3.00
INSIDE DIAM d_wID = 0.19'
OUTSIDE DIAM d_wOD = 0.20'
HOLE DIAMETER d_h = 0.67'
DEPTH TO: 8 – 10.5
SCREENED INTERVAL 5 TO 7.5 bgs
WATER LEVEL H = 9.35 btoc
BASE OF SEAL S = 7.00 btoc
BASE OF CASING TD_C = 10.50
BASE OF FILTER PACK TD_F = 10.50
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2 (10.50 - 9.35) = 0.03 \text{ ft}^3$$

FILTER PACK PORE VOLUME =

$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$

$$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](10.50 - 9.35)(0.25) = 0.09 \text{ ft}^3$$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$$V_T = V_c + V_f = 0.03 + 0.09 = 0.12 \text{ ft}^3 \times 7.48 = 0.90 \text{ GAL}$$

DEVELOPMENT LOG					TOTAL	WATER QUALITY					
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
9-01-16	14:20	—	09.35	—	—	—	—	—	—	—	Top of casing
	14:25	—	—	—	—	—	—	—	—	—	TD = 10.94' bTOC; start surging
	1430	—	8.60	~1gal	1gal	—	—	—	—	—	End surging/Begin bailing
	1435	—	—	1gal	2gal	—	—	—	—	—	End bailing
	1438	—	—	—	—	—	—	—	—	—	Start pumping
	1439	—	—	—	—	—	—	—	—	—	Pump stopped
	1440	0.5	— pumped dry	0.25	Dry	after 1 minute:		>1000 NTU			Pump start/stop
	1500	150 ml/min	9.41	0.03	2.6	8.51	2.12	>1000	30.15	-43	Pump start
	1510	150 ml/min	9.63	0.30	2.9	8.47	1.92	>1000	27.37	-74	
	1520	0.05 gal/min	9.64	0.50	3.4	8.51	1.78	150	26.65	-106	
	1530	0.05 gal/min	9.65	0.50	3.9	8.42	1.76	100	26.15	-131	
	1540	0.05	9.66	0.50	4.4	8.40	1.73	70	25.82	-93	
	1550	0.05	9.66	0.50	4.9	8.32	1.65	39	26.21	-100	
	1600	0.05	9.67	0.50	5.4	8.43	1.64	29	26.10	-126	
	1610	0.05	9.67	0.50	5.9	8.46	1.63	25	25.52	-159	
	1620	0.05	9.68	0.50	6.4	8.49	1.59	19	25.67	-122	
	1630	0.05	9.69	0.50	6.9	8.50	1.57	17	25.27	-133	
	1640	0.05	9.69	0.50	7.4	8.53	1.54	15	25.14	-122	stop pump
				parameters		stable	& <50 NTU				
							9/1/16				

(~5 min/0.25gal)

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	PROJECT NO.	SITE	WELL NO.	PREPARED BY
CGR - Phase III			MW-13	M. Cronin

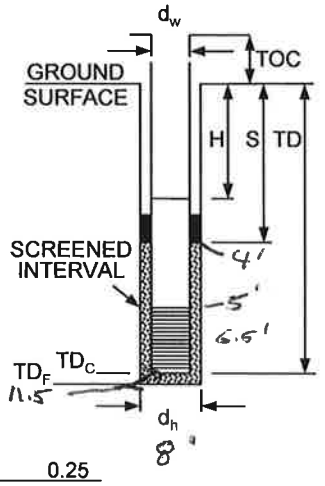
METHOD
PUMP _____
BAILER _____
OTHER _____

DEVELOPMENT CRITERIA
< 50 NTU ≤ 10 NTU ideally.

REMARKS

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = _____
INSIDE DIAM d_wID = _____
OUTSIDE DIAM d_wOD = _____
HOLE DIAMETER d_h = _____
DEPTH TO:
SCREENED INTERVAL _____ TO _____
WATER LEVEL H = _____
BASE OF SEAL S = _____
BASE OF CASING TD_C = _____
BASE OF FILTER PACK TD_F = _____
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2(TD_C - H) = 3.14\left(\frac{\quad}{2}\right)^2(\quad - \quad) = \quad ft^3$$

FILTER PACK PORE VOLUME =

$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$

$$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$V_T = V_c + V_f = \quad + \quad = \quad ft^3 \times 7.48 =$ ~~35.4~~ GAL

8.11' × π × (8/12/2)² × 7.48 = 21.17

DEVELOPMENT LOG					TOTAL	WATER QUALITY					
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
											Top of Casing
8-31-16	0752	—	9.45	0	0	—	—	—	—	—	TD = 17.56. start Bail
	0754			1/4							start Surge
	0805										Surge end. / start Bail
	0811				2.5						end Bail
(MC)	—	—	—	—	2.5	—	—	—	—	—	—
	0819	—	9.44	—	2.5	—	—	—	—	—	start pump
	0820										well went dry.
	0822		10.65								added valve.
	0826	3/4	13.71	—	10	8.80	0.872	35.2	24.61	130	
	0830	3/4	14.38	3	13	9.61	0.831	65.1	22.96	54	
	0834	3/4	~~15.00~~	3	16	—	—	—	—	—	drop rate to 1/4
	0836	1/2	11.70	1	17	9.70	0.790	86.2	22.57	48	
	0840	1/2	9.9	4	21	9.38	0.740	13.9	22.85	60	
	0852	1/2	9.91	4	25	9.33	0.737	6.0	23.35	56	— end. —

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CGR Phase 3	MW-14

PROJECT NO.	SITE	PREPARED BY
SB0794	Crystal Geyser	K. Agostsson

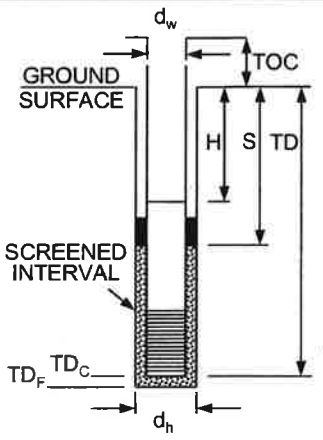
METHOD
PUMP _____
BAILER _____
OTHER _____

DEVELOPMENT CRITERIA

REMARKS

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = _____
INSIDE DIAM d_wID = _____
OUTSIDE DIAM d_wOD = _____
HOLE DIAMETER d_h = _____
DEPTH TO: 10.5 18.5
SCREENED INTERVAL 7.5 TO 15.5
WATER LEVEL H = _____
BASE OF SEAL S = _____
BASE OF CASING TD_C = _____
BASE OF FILTER PACK TD_F = _____
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{\quad}{2}\right)^2 (\quad - \quad) = \quad ft^3$

FILTER PACK PORE VOLUME =

$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$

$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$V_T = V_c + V_f = \quad + \quad = \quad ft^3 \times 7.48 = \quad GAL$

DEVELOPMENT LOG					TOTAL	WATER QUALITY					
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
9/1/16											
1655 →			well Tagged dry. hard bottom @						18.65' bgs		TD=18.65

PAGE 1 OF 1

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME		WELL NO.
		MW-15
PROJECT NO.	SITE	PREPARED BY
		M. Cronin

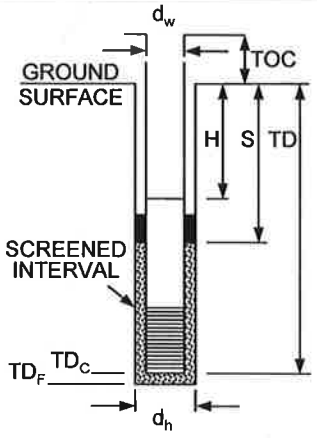
METHOD
PUMP: 12V mini typhoon
BAILER: 3/4" PVC Bailer
OTHER:

DEVELOPMENT CRITERIA: < 50 NTU Ideally ≤ 10 NTU.

REMARKS: 2" Schedule 40 PVC

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = _____
INSIDE DIAM d_wID = _____
OUTSIDE DIAM d_wOD = _____
HOLE DIAMETER d_h = _____
DEPTH TO:
SCREENED INTERVAL _____ TO _____
WATER LEVEL H = 4.94
BASE OF SEAL S = _____
BASE OF CASING TD_C = _____
BASE OF FILTER PACK TD_F = _____
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{\quad}{2}\right)^2 (\quad - \quad) = \quad ft^3$$

FILTER PACK PORE VOLUME =

$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$

$$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$$

(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =

$V_T = V_c + V_f$ = + = $ft^3 \times 7.48 \approx 28.2$ GAL

DEVELOPMENT LOG					TOTAL	WATER QUALITY					
DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	ORP	COMMENTS
08/30/16	1317	-	4.94	0	0						@ top of Casing. TD 49.95
	1340	-	-	3	3						end Bail Start Surge
	1345										end Surge
	1346										Start Bail
	1352			1	4						end Bail
	1354		5.26								~~Start pump.~~
	1402			2.5	6.5						Start pump 2.5 gpm.
	1404	2.5	12.61	5	11.5	7.88	0.259	592	22.80	221	@ 45'
	1407	2.5	12.70	7.5	19.0	7.30	0.380	419	19.71	156	
	1413	2.5	12.95	15	34.0	7.26	0.231	280	19.36	~~159~~ 85	pulled pump
	1421	2.5	12.94	20	54.0	7.26	0.230	124	18.80	60.	to 35'
	1427	2.5	13.01	15.0	69.0	7.29	0.230	87.6	18.73	24	
	1435	2.5	—	20	89.0	7.25	0.229	69.8	18.62	11	Lower to mid screen interval
	1442	2.5	13.15	17.5	106.5	7.24	0.226	12.4	19.19	12	
	1445	2.5	—	7.5	114.0	7.20	0.228	10.5	18.85	8	
	1448	2.5	13.14	7.5	121.5	7.22	0.229	10.0	18.72	8	end pump
	~~1453~~	-	5.30	-							TD 51.39
	1453										

APPENDIX E

FIELD MONITORING LOGS

WELL GAUGING DATA

Project # 160801-207 Date 8/1/16 Client Ecosafe

Site 1210 S. Hwy 395 Olancha, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-01	0825	2					23.48	36.33		
MW-02	1031	2					19.33	28.32		
MW-03	1227	2					15.48	22.80		
MW-15	1350	2					5.14	59.16		
WW-02	0755	2					12.58	15.05		
OW-805	1530	4					Artisian 0.00	—		
MW-12	1610	2					9.25	10.72		
MW-7	0751	2					8.88	22.20		
MW-6	1046	2					13.80	26.31		
MW-13	1153	2					9.45	15.33		
MW-9	1309	2					17.76	27.20		
MW-8	1422	2					14.32	23.41		
MW-11	0730 ~~1007~~	2					10.02	14.38		
MW-5	0916	2					9.21	23.33		
MW-4	1019	2					12.24	22.80		

LOW FLOW WELL MONITORING DATA SHEET Pg 1 of 2

Project #: 160901-N1	Client: Geosyntec
Sampler: RA	Gauging Date: 9/1/16
Well I.D.: MW-01	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 36.33	Depth to Water (ft.): 23.48
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0837 Flow Rate: 400 mL/min Pump Depth: 30'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0840	19.1	6.32	262.9	493	6.08	168.7	1200	23.57
0843	19.0	6.41	257.1	492	6.12	171.4	2400	23.57
0846	18.9	6.42	247.7	441	5.70	173.2	3600	23.57
0849	19.0	6.43	246.4	462	5.69	173.8	4800	23.57
0852	19.0	6.43	218.5	316	5.42	174.0	6000	23.57
0855	18.9	6.45	212.7	228	5.23	173.2	7200	23.57
0858	18.9	6.47	208.5	162	5.28	172.1	8400	23.57
0901	18.9	6.49	203.9	118	5.14	171.2	9600	23.57
0904	18.8	6.50	201.3	96	5.26	169.7	10800	23.57
0907	19.1	6.51	201.3	85	5.08	168.5	12000	23.57
0910	19.0	6.53	201.7	67	5.13	167.5	13200	23.57
0913	19.0	6.53	199.6	59	5.01	165.8	14400	23.57

Did well dewater? Yes (No) Amount actually evacuated: 20400 mL

Sampling Time: 0929 Sampling Date: 9/1/16

Sample I.D.: MW-01-090116 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.: Chlorine Total = 0.34 mg/L Chlorine Free = 0.53 mg/L

LOW FLOW WELL MONITORING DATA SHEET Pg 2 of 2

Project #: 160901-R01	Client: Geosyntec
Sampler: RD	Gauging Date: 9/1/16
Well I.D.: MW-01	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 36.33	Depth to Water (ft.): 23.48
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 0837 Flow Rate: 400 mL/min Pump Depth: 30'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0916	19.0	6.54	186.3	51	4.99	163.5	15600	23.57
0919	19.0	6.54	193.8	39	4.84	162.8	16800	23.57
0922	19.1	6.54	187.7	38	4.77	161.2	18000	23.57
0925	19.1	6.54	185.5	40	4.83	160.3	19200	23.57
0928	19.1	6.54	184.1	38	4.74	159.4	20400	23.57

Did well dewater? Yes (No) Amount actually evacuated: 20400 mL

Sampling Time: 0929 Sampling Date: 9/1/16

Sample I.D.: MW-01 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Geo C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.: Chlorine Total - 0.34 mg/L Chlorine Free - 0.53 mg/L

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-147	Client: Geosyntec
Sampler: RT	Gauging Date: 9/1/16
Well I.D.: MW-02	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 28.32	Depth to Water (ft.): 19.33
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (TOC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | (Bladder Pump)
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 1040 Flow Rate: 400 mL/min Pump Depth: 24'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1043	19.2	6.28	246.7	46	0.40	34.3	1200	19.47
1046	19.0	6.17	246.1	22	0.32	21.0	2400	19.47
1049	18.9	6.09	245.0	18	0.35	14.2	3600	19.47
1052	18.8	6.05	244.2	15	0.37	5.6	4800	19.47
1055	18.7	6.06	242.8	10	0.36	-0.4	6000	19.47
1058	18.7	6.09	239.4	25	0.33	-7.9	7200	19.47
1101	18.8	6.11	237.2	12	0.29	-16.6	8400	19.47
1104	18.9	6.14	232.3	12	0.26	-26.1	9600	19.47
1107	18.9	6.15	232.0	12	0.25	-30.3	10800	19.47
1110	18.9	6.16	230.8	12	0.24	-35.0	12000	19.47

Did well dewater? Yes (No) Amount actually evacuated: 12000 mL

Sampling Time: 1111 Sampling Date: 9/1/16

Sample I.D.: MW-02-090116 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.: Chlorine Total = 0.13 mg/L Chlorine Free = 0.10 mg/L

LOW FLOW WELL MONITORING DATA SHEET

Project #: 120901 - R01	Client: Geosyntec
Sampler: RM	Gauging Date: 9/8/16
Well I.D.: MW-3	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.80	Depth to Water (ft.): 15.49
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | (Bladder Pump)
Sampling Method: Dedicated (Tubing) | New Tubing | Other ___

Start Purge Time: 1158 Flow Rate: 300 mL/min Pump Depth: 20'

Time	Temp. ((°C) or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	Depth to Water (ft.)
1201	18.6	7.82	315.4	71	0.38	-119.0	900	15.80
1204	18.5	7.72	316.8	65	0.33	-132.8	1800	15.80
1207	18.6	7.75	318.5	91	0.30	-144.8	2700	15.80
1210	18.9	7.74	318.3	82	0.27	-147.9	3600	15.80
1213	18.9	7.73	318.4	45	0.27	-148.3	4500	15.80
1216	18.8	7.65	321.1	16	0.24	-147.3	5400	15.80
1219	18.5	7.62	321.4	8	0.24	-146.8	6300	15.80
1222	18.6	7.57	324.6	8	0.22	-144.8	7200	15.80
1225	18.9	7.52	328.0	8	0.23	-142.8	8100	15.80

Did well dewater? Yes (No) Amount actually evacuated: 8100 mL

Sampling Time: 1226 Sampling Date: 9/8/16

Sample I.D.: MW-3-090816 Laboratory: CA/Science

Analyzed for: TPH-G BTEX MTBE TPH-D Other: ~~See C.O.C~~ - SVOCs only

Equipment Blank I.D.: ACBB-04-090816 @ Time 1300 Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-M1	Client: Geosyntec
Sampler: RA	Gauging Date: 9/1/16
Well I.D.: MW-03	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.80	Depth to Water (ft.): 15.48
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other

Start Purge Time: 1236 Flow Rate: 300 mL/min Pump Depth: 20'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1239	18.8	7.33	275.1	75	0.31	-212.0	900	15.85
1242	18.6	7.24	274.8	51	0.25	-212.9	1800	15.85
1245	19.0	7.27	275.2	38	0.34	-182.8	2700	15.86
1248	19.3	7.34	274.3	30	0.29	-212.5	3600	15.86
1251	18.7	7.38	274.9	31	0.21	-224.8	4500	15.86
1254	18.9	7.42	274.8	22	0.34	-221.5	5400	15.86
1257	19.1	7.46	274.6	20	0.42	-217.9	6300	15.86
1300	19.4	7.43	275.3	17	0.41	-221.6	7200	15.86
1304	19.3	7.50	275.9	17	0.40	-225.4	8100	15.86
1307	19.0	7.48	273.6	16	0.36	-225.1	9000	15.86

Did well dewater? Yes (No) Amount actually evacuated: 9000mL

Sampling Time: 1308 Sampling Date: 9/1/16

Sample I.D.: MW-03-090116 Laboratory: CalScience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Geosyntec

Equipment Blank I.D.: @ Time Duplicate I.D.: Chlorine Total = 0.22 mg/L Chlorine Free = 0.29 mg/L

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-M1	Client: Ecosynthee
Sampler: RD	Gauging Date: 9/8/16
Well I.D.: MW-4	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.80	Depth to Water (ft.): 12.24
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 1024 Flow Rate: 400 mL/min Pump Depth: 16'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1027	20.6	9.75	1681	68	5.18	65.6	1200	12.54
1030	20.7	9.74	1683	67	5.19	66.4	2400	12.54
1033	20.7	9.77	1692	62	5.12	67.2	3600	12.54
1036	20.9	9.78	1692	69	5.05	68.0	4800	12.54
1039	20.8	9.78	1682	61	5.07	68.6	6000	12.54
1042	20.8	9.78	1685	45	5.04	69.5	7200	12.54
1045	20.8	9.78	1684	36	5.04	70.0	8400	12.54
1048	20.8	9.77	1684	33	5.05	70.5	9600	12.54
1051	20.8	9.78	1693	31	5.00	70.9	10800	12.54
1054	20.8	9.78	1693	30	5.04	71.3	12000	12.54
							Chlorine Total = 0.00 mg/L	
							Chlorine Free = 0.00 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 12000mL

Sampling Time: 1055 Sampling Date: 9/8/16

Sample I.D.: MW-4-090816 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: (See C.O.C.)

Equipment Blank I.D.: MW-04-090816-DUP @ Time 1055 Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-R01	Client: GeoSyntec
Sampler: RD	Gauging Date: 9/8/16
Well I.D.: MW-5	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 23.33	Depth to Water (ft.): 9.21
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | (Bladder Pump)
Sampling Method: Dedicated Tubing | (New Tubing) | Other ___

Start Purge Time: 0923 Flow Rate: 400 mL/min Pump Depth: 16'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0926	18.7	8.50	1204	20	0.54	65.5	1200	9.42
0929	18.9	8.46	1187	18	0.61	62.8	2400	9.42
0932	19.4	8.56	1238	12	1.22	62.0	3600	9.42
0935	19.5	8.64	1257	8	1.56	61.3	4800	9.42
0938	19.5	8.69	1268	7	1.83	61.3	6000	9.42
0941	19.6	8.70	1270	7	1.90	60.7	7200	9.42
0944	19.6	8.73	1274	7	1.97	60.6	8400	9.42
							Chlorine Total = 0.00 mg/L Chlorine Free = 0.01 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 8400 mL

Sampling Time: 0945 Sampling Date: 9/8/16

Sample I.D.: MW-5-090816 Laboratory: CA/Science

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-R01	Client: Geosynter
Sampler: RO	Gauging Date: 9/7/16
Well I.D.: MW-6	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 26.31	Depth to Water (ft.): 13.80
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 1037 Flow Rate: 400 mL/min Pump Depth: 20'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1040	21.1	9.67	1948	37	0.15	-544.1	1200	13.89
1043	21.4	9.24	1306	20	0.22	-536.5	2800	13.89
1046	21.5	9.22	1311	18	0.27	-507.8	3600	13.89
1049	21.5	9.16	1264	15	0.35	-309.2	4800	13.89
1052	21.4	9.16	1303	10	0.34	-95	6000	13.89
1055	21.5	9.15	1300	8	0.33	-122	7200	13.89
1058	21.5	9.13	1304	8	0.33	-125	8400	13.89
1101	21.5	9.12	1335	7	0.34	-130	9600	13.89
							CHLORINE Total = 0.03 mg/L	
							CHLORINE Free = 0.00 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 9600mL

Sampling Time: 1102 Sampling Date: 9/7/16

Sample I.D.: MW-6-090716 Laboratory: CalScience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-R01	Client: Geosyntec
Sampler: RM	Gauging Date: 9/7/16
Well I.D.: MW-7	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 22.70	Depth to Water (ft.): 8.88
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0807 Flow Rate: 50 mL/min Pump Depth: 18'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0810	20.2	7.26	591	158	0.62	-340.2	150	9.13
0813	20.5	7.43	590	132	0.52	-328.8	300	9.28
0816	20.6	7.55	591	139	0.44	-332.3	450	9.40
0819	20.7	7.66	591	145	0.40	-336.3	600	9.49
0822	20.9	7.74	592	124	0.41	-337.5	750	9.56
0825	20.9	7.81	592	117	0.41	-341.5	900	9.63
0828	20.9	7.84	593	116	0.39	-344.3	1050	9.69
0831	20.9	7.87	593	112	0.37	-348.1	1200	9.75

Did well dewater? Yes (No) Amount actually evacuated: 1200mL

Sampling Time: 0832 Sampling Date: 9/7/16

Sample I.D.: MW-7-090716 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.: CHLORINE TOTAL = 0.0 mg/L CHLORINE FREE = 0.0 mg/L

Field

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-RM1	Client: Geosyntec
Sampler: RM	Gauging Date: 9/7/16
Well I.D.: MW-8	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 23.41	Depth to Water (ft.): 14.32
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 1430 Flow Rate: 400 mL/min Pump Depth: 18'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1433	19.1	7.21	328.3	76	0.40	-247.0	1200	14.36
1436	19.0	7.11	328.7	75	0.35	-261.2	2400	14.36
1439	19.0	7.07	330.2	79	0.33	-271.7	3600	14.36
1442	19.1	7.05	331.0	51	0.32	-275.4	4800	14.36
1445	18.8	7.03	331.5	39	0.28	-279.2	6000	14.36
1448	18.7	7.02	331.9	27	0.27	-283.2	7200	14.36
1451	18.8	7.01	331.8	19	0.25	-287.8	8400	14.36
1454	18.8	7.00	332.2	18	0.25	-288.0	9600	14.36
1457	18.8	7.00	333.0	18	0.25	-288.9	10800	14.36
							CHLORINE TOTAL	= 0.03 mg/L
							CHLORINE FREE	= 0.01 mg/L

Did well dewater? Yes (No) Amount actually evacuated: 10800 mL

Sampling Time: 1458 Sampling Date: 9/7/16

Sample I.D.: MW-8-090716 Laboratory: CA Science

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: QCEB-03-090716 @ Time 1600 Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-R01	Client: Geosyntec
Sampler: RD	Gauging Date: 9/7/16
Well I.D.: MW-9	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 27.20	Depth to Water (ft.): 17.76
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 1317 Flow Rate: 400 ml/min Pump Depth: 23'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1320	17.3	7.38	1039	166	10.9	-117.5	1200	18.13
1323	17.8	7.26	1085	194	0.99	-95.3	2400	18.13
1326	17.9	7.22	1088	104	0.91	-87.7	3600	18.13
1329	18.0	7.18	1090	52	0.84	-83.9	4800	18.13
1332	18.0	7.16	1092	45	0.77	-82.5	6000	18.15
1335	18.0	7.15	1091	24	0.73	-94.0	7200	18.15
1338	17.9	7.15	1092	9	0.70	-96.3	8400	18.16
1341	17.8	7.14	1090	8	0.68	-100.8	9600	18.16
1349	17.8	7.12	1093	9	0.64	-105.6	10800	18.16
							Chlorine total = 0.00 mg/L Chlorine free = 0.00 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 10800 ml

Sampling Time: 1350 Sampling Date: 9/7/16

Sample I.D.: MW-9-090716 Laboratory: CalScience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Well ID: MW-10
Site Loc: Olancha

Purge and Sample Form

Initial DTW:
Time/Date: 9:30, 10/6/16

Time	Volume Purged	DTW	°C	mS/cm	WQ Parameters	mV		mg/l	Comments
			Temp	EC	pH	ORP	Turb	DO	
10:10	Start pumping			100 ml/min					
10:15	500 ml		16.6	0.130	6.91	37.3	36.1	0.41	
10:18	800ml		16.5	0.131	6.97	22.5	3.2	0.38	
10:20	1000		16.5	0.131	7.02	16.6	2.1	0.39	
10:22	1200		16.5	0.131	7.08	5.5	3.3	0.35	
10:24	1400		16.5	0.131	7.09	3.0	3.2	0.33	
10:26	1600		16.5	0.131	7.10	2.5	3.7	0.30	
10:28	1800		16.5	0.131	7.10	2.9	4.0	0.30	
	stabilized @ 10:30								
	Sample @ 10:30								

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901 - M1	Client: GeoSyntec
Sampler: MO	Gauging Date: 9/8/16
Well I.D.: MW-11	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 14.38	Depth to Water (ft.): 10.02
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | (Bladder) Pump
Sampling Method: Dedicated Tubing | New (Tubing) | Other ___

Start Purge Time: 0738 | Flow Rate: 150 mL/min | Pump Depth: 12'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0741	16.6	7.45	1160	138	0.45	46.9	450	10.24
0744	16.8	7.28	1244	164	0.38	0.9	900	10.24
0747	17.0	7.10	1357	141	0.35	-23.1	1350	10.25
0750	17.1	7.03	1432	115	0.33	-33.0	1800	10.25
0753	17.1	6.98	1499	97	0.33	-43.7	2250	10.25
0756	17.1	6.96	1538	72	0.33	-51.7	2700	10.25
0759	17.2	6.95	1572	56	0.31	-59.5	3150	10.25
0802	17.2	6.94	1598	40	0.32	-64.1	3600	10.25
0805	17.3	6.93	1627	32	0.34	-68.2	4050	10.25
0808	17.3	6.93	1647	28	0.67	-71.4	4500	10.25
0811	17.4	6.92	1662	24	0.69	-73.7	4950	10.25
0814	17.4	6.92	1675	22	0.75	-76.3	5400	10.26

Did well dewater? Yes (No) | Amount actually evacuated: 7200 mL

Sampling Time: 0827 | Sampling Date: 9/8/16

Sample I.D.: MW-11-090816 | Laboratory: CalScience

Analyzed for: TPH-G BTEX MTBE TPH-D | Other: See C-O-C.

Equipment Blank I.D.: @ Time | Duplicate I.D.: CHLORINE TOTAL = 0.02 mg/L CHLORINE FREE = 0.01 mg/L

LOW FLOW WELL MONITORING DATA SHEET Pg 2 of 2

Project #: 160901-09/	Client: GeoSyntec
Sampler: RD	Gauging Date: 9/9/16
Well I.D.: MW-11	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 14.38	Depth to Water (ft.): 10.02
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro PLUS

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0738 Flow Rate: 150 mL/min Pump Depth: 12'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0817	17.5	6.92	1682	19	0.70	-80.4	5950	10.26
0820	17.5	6.92	1686	15	0.64	-83.4	6400	10.26
0823	17.5	6.91	1695	14	0.62	-85.8	6850	10.26
0826	17.5	6.91	1698	14	0.60	-86.2	7200	10.26
							Chloride Total = 0.02 mg/L	
							Chloride Free = 0.01 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 7200 mL

Sampling Time: 0827 Sampling Date: 9/9/16

Sample I.D.: MW-11-090816 Laboratory: CalScience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-M1	Client: Geosynfec
Sampler: M	Gauging Date: 9/6/16
Well I.D.: MW-12	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 10.72	Depth to Water (ft.): 9.25
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 1122 Flow Rate: 200 ml/min Pump Depth: 10'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1625	21.9	8.65	1664	295	0.73	-150.9	600	9.35
1628	22.0	8.72	1710	191	0.54	-171.9	975	9.43
~~1631~~ 1634	21.6	8.78	1737	88	0.49	-187.1	1350	9.43
1634	21.5	8.81	1732	55	0.47	-200.2	1725	9.43
1637	21.2	8.86	1726	38	0.44	-218.2	2100	9.43
1640	21.3	8.89	1713	30	0.42	-228.4	2475	9.43
1643	21.2	8.93	1723	20	0.39	-240.0	2850	9.43
1646	21.2	8.95	1721	21	0.37	-243.6	3225	9.43
1649	21.3	8.99	1723	20	0.35	-248.7	3600	9.43
							Chlorine Total = 0.0 mg/L Chlorine Free = 0.0 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Time: 1650 Sampling Date: 9/6/16

Sample I.D.: MW-12-090616 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C-O-C.

Equipment Blank I.D.: QCEB-02-090616 @ Time 1600 Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160801-R1	Client: Geosyntec
Sampler: RJ	Gauging Date: 9/7/16
Well I.D.: MW-13	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 15.33	Depth to Water (ft.): 9.45
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 1200 Flow Rate: 400 mL/min Pump Depth: 12'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1203	22.3	9.15	1324	78	0.88	-55.4	1200	9.45
1206	22.2	8.63	1243	74	0.81	-98.1	2400	9.48
1209	22.1	8.56	1180	50	0.71	-119.7	3600	9.50
1212	22.1	8.55	1093	23	0.71	-130.3	4800	9.50
1215	22.2	8.58	1040	16	0.78	-129.5	6000	9.50
1218	22.1	8.59	1024	12	0.81	-133.6	7200	9.51
1221	22.2	8.59	1013	9	0.83	-133.5	8400	9.52
1224	22.1	8.58	1000	8	0.87	-208.4	9600	9.52
1227	22.2	8.59	992	7	0.90	-207.6	10800	9.52
1230	22.2	8.59	990	7	0.90	-204.6	12000	9.52
							Chlorine Total = 0.00 mg/L Chlorine Free = 0.01 mg/L	

Did well dewater? Yes (No) Amount actually evacuated: 12000 mL

Sampling Time: 1231 Sampling Date: 9/7/16

Sample I.D.: MW-13-090716 Laboratory: CA Science

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C.O.C.

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-001	Client: Cosynrec
Sampler: RD	Gauging Date: 9/1/16
Well I.D.: MW-15	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 51.16	Depth to Water (ft.): 5.14
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ___

Start Purge Time: 1359 Flow Rate: 400 ml/min Pump Depth: 48.5

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1402	19.0	8.00	309.9	172	0.39	-226.8	1200	5.50
1405	18.9	7.92	309.8	354	0.34	-226.9	2400	5.50
1408	18.8	7.87	310.0	466	0.30	-227.1	3600	5.50
1411	21.0	7.85	309.2	298	0.30	-227.8	4800	5.50
1414	18.3	7.90	311.0	257	0.35	-225.0	6000	5.50
1417	18.2	7.92	313.0	217	0.30	-233.3	7200	5.50
1420	18.3	7.94	310.0	201	0.31	-232.6	8400	5.50
1423	18.5	7.93	309.9	170	0.28	-234.5	9600	5.50
1426	18.7	7.93	310.0	163	0.25	-236.7	10800	5.50
1429	18.7	7.94	309.4	195	0.21	-240.6	12000	5.50
1432	18.7	7.85	309.8	188	0.22	-241.3	13200	5.50
1435	18.8	7.85	310.1	206	0.20	-242.5	14400	5.50

Did well dewater? Yes (No) Amount actually evacuated: 14400 mL

Sampling Time: 1436 Sampling Date: 9/1/16

Sample I.D.: MW-15-090116 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See C-O-C

Equipment Blank I.D.: EB-01-090116 @ 1540 Time Duplicate I.D.: Chlorine Total = 0.05 mg/L Chlorine Free = 0.0 mg/L

LOW FLOW WELL MONITORING DATA SHEET

Project #: 160901-201	Client: Geosyntec
Sampler: RM	Gauging Date: 9/6/16
Well I.D.: OW-805	Well Diameter (in.): 2 3 4 6 8 ___
Total Well Depth (ft.): —	Depth to Water (ft.): 0.00 Artisian
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI Pro Plus

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other Artisian well

Start Purge Time: 1535 Flow Rate: 1.4 Ltr/min Pump Depth: —

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ~~mL~~)	Depth to Water (ft.)
1538	15.5	7.97	192.3	0.74	0.17	-159.6	4.2	0.00
1541	15.5	7.98	192.3	0.40	0.15	-169.2	8.4	0.00
1544	15.5	8.07	192.3 ~~183.6~~ MD	0.37	0.12	-183.6	12.6	0.00
1547	15.5	8.14	192.3	0.33	0.11	-194.8	16.8	0.00
1550	15.5	8.19	192.2	0.29	0.10	-204.8	21.0	0.00
1553	15.5	8.22	192.1	0.45	0.10	-211.0	25.2	0.00
1556	15.5	8.25	192.1	0.22	0.09	-220.5	29.4	0.00
1559	15.5	8.26	192.2	0.23	0.09	-224.4	33.6	0.00
1602	15.5	8.28	192.2	0.32	0.09	-224.8	37.8	0.00

Did well dewater? Yes (No) Amount actually evacuated: 37.8

Sampling Time: 1430 Sampling Date: 9/6/16

Sample I.D.: OW-805-090616 Laboratory: Calscience

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC. Chlorine total 0.10 mg/L

Equipment Blank I.D.: @ Time Duplicate I.D.: Chlorine Free 0.04 mg/L

WELLHEAD INSPECTION CHECKLIST

Client Geosyntec Date 8/1/16

Site Address 1210 S. Hwy 395 Olancha, CA

Job Number 160981-M1 Technician Danny Rice

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12"or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12"or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-01	✓	✓	Stand PIPE							
MW-02	✓	✓	Stand PIPE							
MW-03	✓	✓	Stand PIPE							
MW-15	✓	✓	Stand PIPE							
WW-02	✓	✓	Stand PIPE							
OW-8US	✓	✓	Stand PIPE							
MW-12	✓	✓	Stand PIPE							
MW-7	✓	✓	Stand PIPE							
MW-6	✓	✓	Stand PIPE							
MW-13	✓	✓	Stand PIPE							
MW-9	✓	✓	Stand PIPE							
MW-8	✓	✓	Stand PIPE							
MW-11	✓	✓	Stand PIPE							
MW-5	✓	✓	Stand PIPE							
MW-4	✓	✓	Stand PIPE							

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME Geosynthec @ Blanchard				PROJECT NUMBER 16091-001			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI ProPlus	12J10700	0800 9/1/16	PH 7.00	6.96	7.00	20.1	KD
↓	↓	↓	10.00	10.05	10.00	20.5	
↓	↓	↓	↓ 4.00	3.81	4.00	20.2	ND
↓	↓	↓	Cond 3900	3922	3900	20.0	
↓	↓	↓	ORP 231.6	235.0	231.6	20.7	ND
↓	↓	↓	DO% 100	87.3	98.4 %	22.4	
YSI ProPlus	12J10700	9/2/16 0645	PH 7.00	7.04	7.00	17.8	RD
↓	↓	↓	↓ 10.00	9.99	10.00	16.8	
↓	↓	↓	↓ 4.00	4.03	4.00	17.4	ND
↓	↓	↓	Cond 3900	3890	3900	16.6	
↓	↓	↓	ORP 242.4	243.6	242.4	16.6	ND
↓	↓	↓	DO% 100	94.6 %	97.9 %	20.0	
YSI ProPlus	12J10700	1515 8/7/16	PH 7.00	7.06	7.00	29.4	ND
↓	↓	↓	↓ 10.00	10.01	10.00	28.6	
↓	↓	↓	↓ 4.00	3.96	4.00	28.4	ND
↓	↓	↓	Cond 3900	3884	3900	30.3	
↓	↓	↓	ORP 224.5	225.6	224.5	31.0	ND
↓	↓	↓	DO% 100	93.2 %	98.1 %	25.1	

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME	Geosyntec @ Alameda			PROJECT NUMBER	160901-R07		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI ProPlus	12J10700 ~~06H10~~	9/7/16 0645	pH 7.00	~~6.94~~	7.00	18.3	
↓	↓	↓	↓ 10.00	9.95	10.00	18.3	RD
↓	↓	↓	↓ 4.00	4.01	4.00	18.1	
↓	↓	↓	Cond 3900	3906	3900	15.9	RD
↓	↓	↓	ORP 242.7	253.0	242.7	16.8	
↓	↓	↓	DO% 100	97.4%	97.9%	15.5	RD
YSI ProPlus	14A102842	9/8/16 0645	pH 7.00	6.96	7.00	19.9	
↓	↓	↓	↓ 10.00	10.02	10.00	19.5	RD
↓	↓	↓	↓ 4.00	3.94	4.00	19.1	
↓	↓	↓	Cond 3900	3888	3900	20.2	RD
↓	↓	↓	ORP 239.4	242.7	239.4	19.3	
↓	↓	↓	DO% 100	95.3%	97.9%	20.1	RD

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants
130 Research Lane, Suite 2
Guelph, Ontario, Canada N1G 5G3
(519)822-2230 Fax (519)822-3151

① Project Name: CG ROXANE — Probe No.: SV-01 — ☐ Sub-slab probe ☒ Soil gas probe
Date: 08/30/2016 — Project Number: SB0746 SB0794 — Mini Rae 2000 Serial No.: 592-908454 — Lamp (10.6) / 11.7 eV
Site Location: Olancha — Landtech GEM 2000 Landfill Gas Meter Serial No. M: NA
Weather: Sunny Hot High 95-100°F — MDG 2002 Helium detector Serial No.: U528111X (FEI RENTAL)
Field Personnel: M. Cronin — Tracer Gas: ☒ Helium ☐ Other
Recorded By: M. Cronin

② Surface Type: ☐ Asphalt ☐ Concrete ☐ Grass ☒ Other Sand
Surface Thickness _____ inches/centimeters ☐ Unknown (i.e., asphalt or concrete)

③ 1 Casing Volume
☐ Sub-slab <0.1 L
Soil gas probe ~2.45 (L)

④ Initial Vacuum (prior to pumping) 0.0 in. H_2O

⑤ Shut in test prior to ~~pneumatic~~ Purge test completed, 70 in. H_2O held for 70 seconds.

⑥ Start of Pneumatic Test: _____

Elapsed Time (min.)	Pump Flow Rate (LPM)	Well Head Vacuum in. H_2O
12	~~0.1~~ 0.2	1.0
12	0.2	1.0
12	~~0.5~~ 0.2	1.0

⑦ Field tubing blank reading (ppm_v) completed? ☐ Yes ☒ No PID Reading _____ ppm_v

⑧ Shut in test prior to purging completed? Yes ☒ No ☐

⑨ Purging

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4 (%)	CO_2 (%)	O_2 (%)	Tracer Gas Shroud (%) Min	Tracer Gas Shroud (%) Max	Tracer Gas Sample (ppm_v, %) (circle one)	VOCs by PID (ppm_v)
	1000	1013	12.6	2.5	0.2	2.5				22.1	34.5	0	0.3
	1017	1030	12.6	2.5	0.2	5				12.9	35.0	0	0.4
	1036	1049	12.6	2.5	0.2	7.5				13.3	36.2	0	0.2

⑩ Helium concentration in field screened samples is less than 5% of minimum concentration in the shroud? ☒ Yes ☐ No **Note:** 1% helium = 10,000 ppm_v

⑪ Shut in test prior to sample collection completed? Yes ☒ No ☐

⑫ Sample Collection

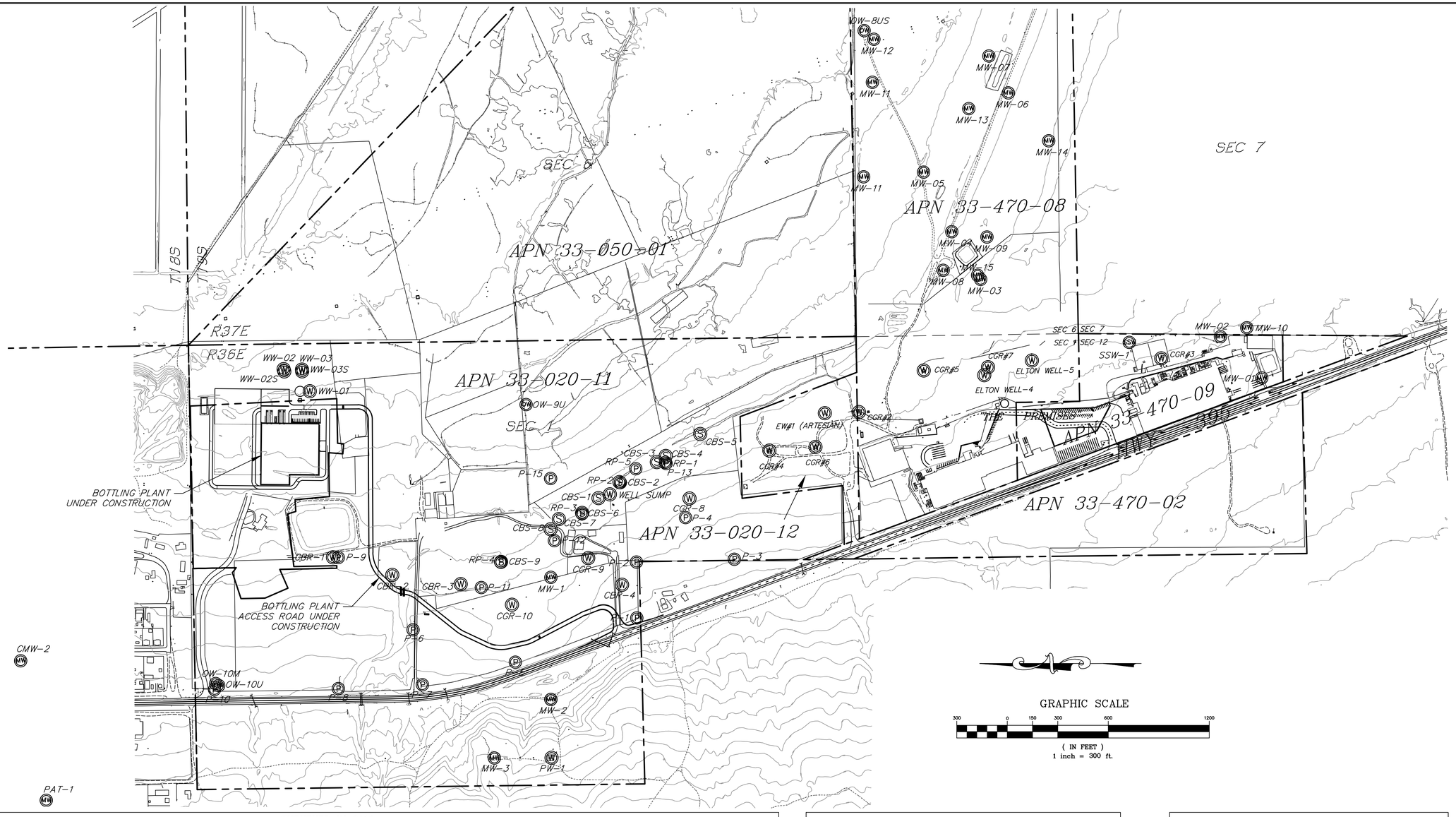
Date	Time (start/stop)	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
8/30/16	1054/1059	SV-01-5-083016	1631/~~LC1023~~ LC369	A71	NA	-26.07	-4.73
8/30/16	1054/1059	SV-01-5-083016-Dup	B2625/LC1032	A493	NA	-26.18	-5.43

Comments: Sample "T" #49

SOP measurements: pneumatic testing.xl

APPENDIX F

SURVEY DATA



GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

SURVEYED IN 2010

(P) PIEZO ID#	TOP CASING ELEV	GROUND ELEV
P-1	3639.57	3637.07
P-2	3632.42	3629.92
P-3	3635.72	3635.42
P-4	3631.69	3627.19
P-5	3633.10	3629.90
P-6	3633.22	3628.72
P-7	3639.05	3637.55
P-8	3642.93	3640.43
P-9	3619.22	3618.12
P-10	3640.66	3637.66
P-11	3624.24	3620.24
P-12	3623.14	3617.64
P-13	3618.04	3615.54
P-15	3606.99	3605.99
RP-1	3616.40	3615.33
RP-2	3614.32	3613.26
RP-3	3617.27	3615.03
RP-4	3617.74	3615.69
RP-5	3611.13	N/A

(MW) MONITOR WELL ID#	TOP CASING ELEV	GROUND ELEV
MW-1	3623.94	3622.64
MW-2	3642.51	3639.57
MW-3	3679.36	3676.13

(W) WELL ID#		
CBR-1	3620.00	3618.50
CBR-2	3623.21(top valve)	3620.01
CBR-3	3618.02	3617.52
CBR-4	3633.42	3633.02(conc pad)
PW-1	3676.08(conc pad)	3675.58
WELL SUMP	3617.10	3614.60
CGR-8	3626.88	3624.93
CGR-9	3627.55	3625.08
CGR-10	3625.42	3623.19

(S) SPRING ID#	
CBS-1	3613.51
CBS-2	3611.39
CBS-3	3613.19
CBS-4	3613.18
CBS-5	3612.08
CBS-6	3614.76
CBS-7	3613.22
CBS-8	3612.35
CBS-9	3615.48

SURVEYED IN 2015

(W) WELL ID#	TOP CASING ELEV	GROUND ELEV
OW-8US	3598.80	3596.39
OW-9U	3601.26	3598.73
OW-10M	3639.50	3636.67
OW-10U	3639.10	3637.27
SSW-1	3627.21	3624.14

(MW) MONITOR WELL ID#		
MW-01	3643.81	3641.41
MW-02	3638.21	3635.46
MW-03	3618.26	3615.71
MW-04	3615.22	3612.43
MW-05	3608.33	3605.72
MW-06	3615.33	3612.68
MW-07	3610.16	3607.63
MW-08	3617.28	3614.71
MW-09	3620.04	3617.52

SURVEYED IN 2016

(W) WELL ID#	TOP CASING ELEV	GROUND ELEV
WW-01	3597.58	3594.97
WW-02	3594.49	3591.97
WW-02S	3594.91	3592.33
WW-03	3595.66	3593.27
WW-03S	3595.68	3593.41
CMW-2	3635.52	3635.06
PAT-1	3657.49	3655.88

(MW) MONITOR WELL ID#		
MW-10	3640.44	3637.82
MW-11	3603.96	3601.08
MW-12	3599.07	3596.41
MW-13	3610.61	3607.76
MW-14	3620.50	3617.92
MW-15	3618.62	3616.26

thа
triad/holmes assoc
civil engineering
land surveying
MAMMOTH LAKES
BISHOP
REDWOOD CITY

PREPARED & SUBMITTED BY:

REGISTERED PROFESSIONAL ENGINEER
THOMAS A. PLATZ
NO. C 41039
CIVIL
STATE OF CALIFORNIA

DATE:

REVISIONS:	BY:
UPDATED TO INCLUDE 2015 & 2016 SURVEYS 10/11/16	GP

SURVEYED LOCATIONS OF MONITORING WELLS, PRODUCTION WELLS AND SPRINGS
CALIF STATE PLANE COORDINATE SYSTEM, ZONE IV, NAD 83

C.G. ROXANE PROPERTY

PREPARED FOR:
C.G. ROXANE L.L.C.

DATE 10/14/16
SCALE AS SHOWN
DRAWN TP / GP
JOB NO. 915.4
DWG 1
SHEET 1 OF 2

C:\01 Mammoth\915-4\acad\915-4-GRID\ACAD-915-4WELLS GW GRID sht1 R1.dwg Oct 14,2016 - 10:22am, srsj

GLOBAL_ID	FIELD_PT_NAME	FIELD_PT_CLASS	XY_SURVEY_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TYPE
GLOBAL_ID	MW-10	MW	9/16/2016	36.3013840	-118.0197377	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID	MW-11	MW	9/16/2016	36.3076097	-118.0166167	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID	MW-12	MW	9/16/2016	36.3074198	-118.0138466	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID	MW-13	MW	9/16/2016	36.3058837	-118.0152627	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID	MW-14	MW	9/16/2016	36.3045843	-118.0159273	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID	MW-15	MW	9/16/2016	36.3057670	-118.0186235	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E
GLOBAL_ID	OW-8US	MW	9/16/2016	36.3075790	-118.0136696	RTK	NAD83	1	TRIAD/HOLMES ASSOCIATES	TOPCON LEGACY-E

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC	EFF_DATE
GLOBAL_ID	MW-10	9/16/2016	3640.44	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	2.61	NGS Q1380	
GLOBAL_ID	MW-11	9/16/2016	3603.96	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	2.88	NGS Q1380	
GLOBAL_ID	MW-12	9/16/2016	3599.07	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	2.66	NGS Q1380	
GLOBAL_ID	MW-13	9/16/2016	3610.61	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	2.85	NGS Q1380	
GLOBAL_ID	MW-14	9/16/2016	3620.50	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	2.58	NGS Q1380	
GLOBAL_ID	MW-15	9/16/2016	3618.62	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	2.36	NGS Q1380	
GLOBAL_ID	OW-8US	9/16/2016	3600.26	CGPS	88	2	TRIAD/HOLMES ASSOCIATES	3.77	NGS Q1380	

APPENDIX G

WASTE TRANSPORTATION MANIFESTS

Soil Safe of California, Inc.

12328 Hibiscus Ave Adelanto, CA 92301
(760)246-8001

Job Summary Report

From: 9/5/2016 To: 9/11/2016

Date	Log #	Truck Company	Site Name	Net	
A4-6380					
			9/9/2016		
9/9/2016	1	AIS	CRYSTAL GEYSER ROXANE, LLC	3.20	
			Total tons for Date = 9/9/2016 (1 truck)		3.20
Total tons for Approval Number' = A4-6380 (1 truck)					3.20

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
9-09-16	Transporter	565-240	A07	46380	001

Generator and/or Consultant

Generator's Name and Billing Address: Crystal Geyser Roxane, LLC 1210 US Highway 395 Olancha, CA 93549	Generator's Phone #:	
	Person to Contact:	
	FAX#:	Customer Account Number
Consultant's Name and Billing Address:	Consultant's Phone #:	
	Person to Contact:	
	FAX#:	Customer Account Number
Generation Site (Transport from): *(name & address)* Crystal Geyser Roxane, LLC 1210 US Highway 395 Olancha, CA 93549	Site Phone #:	
	Person to Contact:	
	FAX#:	
Designated Facility (Transport to): *(name & address)* Soil Safe 12328 Hibiscus Rd. Adelanto, CA 92301-1700	Facility Phone #: (800) 862-8001	
	Person to Contact: Joe Provansal	
	FAX#: (760) 246-8004	
Transporter Name and Mailing Address: American Integrated Services, Inc. P.O. Box 92316 Long Beach, CA 90809-2316	Transporter's Phone #: (310) 522-1168	CAR000148336
	Person to Contact: Jennifer Sherman	
	FAX#: (310) 522-0474	Customer Account Number 7704908

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			41588	39480	6.400
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					3.20

List any exception to items listed above: AIS Project # 36011-10-4 B-16142 Scale Ticket # 127641

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils descried in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way. Signed by Kenjo (Geosyntec) as agent of Crystal Geyser Roxane

Print or Type Name: Generator ☐ Consultant ☒ Kenjo Asgedom — Signature and date: — Month 9 Day 09 Year 16

Transporter

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Scott Silvas — Signature and date: — Month 9 Day 09 Year 16

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above.

Print or Type Name: J. Provansal — Signature and date: 9-9-16

Please print or type.

FACILITY COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
Not Required	1	888-423-6060	092016035

GENERATOR

5. Generator's Name and Mailing Address

Crystal Geyser Roxane, LLC
1210 US Highway 395
Olancha CA 93549

Generator's Site Address (If different than mailing address)

Generator's Phone: 530 938-1824

6. Transporter 1 Company Name: American Integrated Services Inc — U.S. EPA ID Number: CAR000148338

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813

Facility's Phone: 562 432-5445

U.S. EPA ID Number: CAD097030993

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Hazardous Waste Liquid (Groundwater)	001	TT	500	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

Wear proper PPE while handling. Weights or volumes are approximate

Job# 36011-10-4 Profile# 27578

556221 TD136669
L38056

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: George Castaneda, Jr — Signature: [signature] — Month 09 Day 20 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Irvin Duncan — Signature: [signature] — Month 9 Day 20 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

H135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: [illegible] — Signature: [signature] — Month 9 Day 12 Year 16

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #1

APPENDIX H

LABORATORY REPORTS

eurofins | Calscience

WORK ORDER NUMBER: 16-08-1807

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/06/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

eurofins | Calscience

Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-08-1807

eurofins | Calscience

Work Order Narrative

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/25/16. They were assigned to Work Order 16-08-1807.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	08/25/16 10:15
		Number of Containers:	16
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-01-S-10-160823	16-08-1807-1	08/23/16 07:23	1	Solid
B-01-S-18-160823	16-08-1807-2	08/23/16 07:26	1	Solid
B-01-S-15-160823	16-08-1807-3	08/23/16 07:23	1	Solid
B-01-S-05-160823	16-08-1807-4	08/23/16 07:20	1	Solid
B-02-W-15.5-160823	16-08-1807-5	08/23/16 14:15	2	Aqueous
B-02-W-15.5-160823-DUP	16-08-1807-6	08/23/16 14:15	2	Aqueous
B-02-W-12.25-160823	16-08-1807-7	08/23/16 13:30	2	Aqueous
B-02-W-23-160823	16-08-1807-8	08/23/16 16:00	2	Aqueous
B-02-W-25.5-160823	16-08-1807-9	08/23/16 16:15	2	Aqueous
SS-02-160823	16-08-1807-10	08/23/16 15:45	1	Solid
SS-01-160823	16-08-1807-11	08/23/16 15:30	1	Solid

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-01-S-10-160823 (16-08-1807-1)						
Arsenic	1.61		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	23.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.28		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.13		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	3.72		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	1.87		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.809		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	8.68		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.6		1.01	mg/kg	EPA 6010B	EPA 3050B
B-01-S-18-160823 (16-08-1807-2)						
Arsenic	3.62		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	52.9		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.55		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.79		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	6.36		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	2.53		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.04		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.83		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	38.4		0.980	mg/kg	EPA 6010B	EPA 3050B
B-01-S-15-160823 (16-08-1807-3)						
Arsenic	23.1		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	65.6		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.353		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.93		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.47		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	11.4		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	7.55		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.05		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	59.6		1.01	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-01-S-05-160823 (16-08-1807-4)						
Arsenic	1.34		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	24.0		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.612		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.32		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	4.11		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	2.01		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.773		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	9.19		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	33.2		1.03	mg/kg	EPA 6010B	EPA 3050B
B-02-W-15.5-160823 (16-08-1807-5)						
Arsenic	0.0391		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0298		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0382		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0255		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0120		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.91		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0135		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.613		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.112		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.89		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0577		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.638		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.660		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.49		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00401		0.000500	mg/L	EPA 7470A	EPA 7470A Total

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-02-W-15.5-160823-DUP (16-08-1807-6)						
Antimony	0.0209		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0455		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0301		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0448		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0432		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0177		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.142		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.83		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.589		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.102		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.85		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.204		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0502		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.598		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.606		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.35		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00396		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-12.25-160823 (16-08-1807-7)						
Arsenic	0.363		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.308		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0665		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0146		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.402		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.713		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0480		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.201		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.134		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.191		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.0539		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.456		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.649		0.0100	mg/L	EPA 6010B	EPA 3010A Total

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-02-W-23-160823 (16-08-1807-8)						
Arsenic	0.0133		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0107		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0509		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.06		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.242		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0476		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.576		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.0460		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0308		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.117		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.495		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00107		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-25.5-160823 (16-08-1807-9)						
Antimony	0.0412		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.119		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0241		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0873		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0223		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0126		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.171		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.50		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cadmium	0.0151		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.281		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.161		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0265		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.148		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.325		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.517		0.0100	mg/L	EPA 6010B	EPA 3010A Total

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SS-02-160823 (16-08-1807-10)						
Arsenic	22.7		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	69.9		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.270		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.31		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.57		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	8.52		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.45		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.38		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	14.6		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.1		1.04	mg/kg	EPA 6010B	EPA 3050B
SS-01-160823 (16-08-1807-11)						
Antimony	1.84		0.781	mg/kg	EPA 6010B	EPA 3050B
Arsenic	29.0		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	53.0		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.10		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.48		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	9.18		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	4.59		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.74		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.15		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.9		1.04	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	**16-08-1807-1-A**	**08/23/16 07:23**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:32**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	1.61	0.754	1.01	
Barium	23.7	0.503	1.01	
Beryllium	ND	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	1.28	0.251	1.01	
Cobalt	2.13	0.251	1.01	
Copper	3.72	0.503	1.01	
Lead	1.87	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	0.809	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	8.68	0.251	1.01	
Zinc	29.6	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-18-160823	**16-08-1807-2-A**	**08/23/16 07:26**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:37**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	3.62	0.735	0.980	
Barium	52.9	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	8.55	0.245	0.980	
Cobalt	2.79	0.245	0.980	
Copper	6.36	0.490	0.980	
Lead	2.53	0.490	0.980	
Molybdenum	1.04	0.245	0.980	
Nickel	1.83	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	11.0	0.245	0.980	
Zinc	38.4	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-15-160823	**16-08-1807-3-A**	**08/23/16 07:23**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:39**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	23.1	0.754	1.01	
Barium	65.6	0.503	1.01	
Beryllium	0.353	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	1.93	0.251	1.01	
Cobalt	5.47	0.251	1.01	
Copper	11.4	0.503	1.01	
Lead	7.55	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	2.05	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	23.5	0.251	1.01	
Zinc	59.6	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-05-160823	**16-08-1807-4-A**	**08/23/16 07:20**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:41**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	1.34	0.773	1.03	
Barium	24.0	0.515	1.03	
Beryllium	ND	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	0.612	0.258	1.03	
Cobalt	2.32	0.258	1.03	
Copper	4.11	0.515	1.03	
Lead	2.01	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	0.773	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	9.19	0.258	1.03	
Zinc	33.2	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:42**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	22.7	0.777	1.04	
Barium	69.9	0.518	1.04	
Beryllium	0.270	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	1.31	0.259	1.04	
Cobalt	2.57	0.259	1.04	
Copper	8.52	0.518	1.04	
Lead	ND	0.518	1.04	
Molybdenum	2.45	0.259	1.04	
Nickel	1.38	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	14.6	0.259	1.04	
Zinc	42.1	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:47**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	1.84	0.781	1.04	
Arsenic	29.0	0.781	1.04	
Barium	53.0	0.521	1.04	
Beryllium	ND	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	7.10	0.260	1.04	
Cobalt	2.48	0.260	1.04	
Copper	9.18	0.521	1.04	
Lead	4.59	0.521	1.04	
Molybdenum	1.74	0.260	1.04	
Nickel	4.15	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	29.3	0.260	1.04	
Zinc	26.9	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23162**	**N/A**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 12:57**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	ND	0.721	0.962	
Barium	ND	0.481	0.962	
Beryllium	ND	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	ND	0.240	0.962	
Cobalt	ND	0.240	0.962	
Copper	ND	0.481	0.962	
Lead	ND	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	ND	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	ND	0.240	0.962	
Zinc	ND	0.962	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-A**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 19:33**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.158	0.0100	1.00	
Barium	2.91	0.0100	1.00	
Beryllium	0.0135	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.613	0.0100	1.00	
Cobalt	0.112	0.0100	1.00	
Copper	1.89	0.0100	1.00	
Lead	0.214	0.0100	1.00	
Molybdenum	0.0577	0.0100	1.00	
Nickel	0.638	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.660	0.0100	1.00	
Zinc	1.49	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-A**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:12**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.142	0.0100	1.00	
Barium	2.83	0.0100	1.00	
Beryllium	0.0130	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.589	0.0100	1.00	
Cobalt	0.102	0.0100	1.00	
Copper	1.85	0.0100	1.00	
Lead	0.204	0.0100	1.00	
Molybdenum	0.0502	0.0100	1.00	
Nickel	0.598	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.606	0.0100	1.00	
Zinc	1.35	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-A**	**08/23/16 13:30**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:13**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.402	0.0100	1.00	
Barium	0.713	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.158	0.0100	1.00	
Cobalt	0.0480	0.0100	1.00	
Copper	0.201	0.0100	1.00	
Lead	0.134	0.0100	1.00	
Molybdenum	0.191	0.0100	1.00	
Nickel	0.0539	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.456	0.0100	1.00	
Zinc	0.649	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-A**	**08/23/16 16:00**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:14**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0316	0.0100	1.00	
Barium	1.06	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.242	0.0100	1.00	
Cobalt	0.0476	0.0100	1.00	
Copper	0.576	0.0100	1.00	
Lead	0.0460	0.0100	1.00	
Molybdenum	0.0308	0.0100	1.00	
Nickel	0.117	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.214	0.0100	1.00	
Zinc	0.495	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-A**	**08/23/16 16:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:15**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.171	0.0100	1.00	
Barium	1.50	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	0.0151	0.0100	1.00	
Chromium	0.281	0.0100	1.00	
Cobalt	0.0316	0.0100	1.00	
Copper	0.130	0.0100	1.00	
Lead	0.161	0.0100	1.00	
Molybdenum	0.0265	0.0100	1.00	
Nickel	0.148	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.325	0.0100	1.00	
Zinc	0.517	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15996**	**N/A**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:39**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-B**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:17**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0391	0.0100	1.00	
Barium	0.0298	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0382	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0255	0.0100	1.00	
Zinc	0.0120	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-B**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:18**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0209	0.0150	1.00	
Arsenic	0.0455	0.0100	1.00	
Barium	0.0301	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0448	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0432	0.0100	1.00	
Zinc	0.0177	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-B**	**08/23/16 13:30**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:19**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.363	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.308	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0665	0.0100	1.00	
Zinc	0.0146	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-B**	**08/23/16 16:00**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:20**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0133	0.0100	1.00	
Barium	0.0107	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0509	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-B**	**08/23/16 16:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:21**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0412	0.0150	1.00	
Arsenic	0.119	0.0100	1.00	
Barium	0.0241	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0873	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0223	0.0100	1.00	
Zinc	0.0126	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15997**	**N/A**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:39**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-A**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/30/16 16:13**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00401	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-A**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:17**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00396	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-A**	**08/23/16 13:30**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:19**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-A**	**08/23/16 16:00**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:21**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00107	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-A**	**08/23/16 16:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:24**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7962**	**N/A**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:50**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-B**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:01**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-B**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:55**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-B**	**08/23/16 13:30**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:04**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-B**	**08/23/16 16:00**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:06**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-B**	**08/23/16 16:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:08**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-815**	**N/A**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:50**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	**16-08-1807-1-A**	**08/23/16 07:23**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:49**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-18-160823	**16-08-1807-2-A**	**08/23/16 07:26**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:52**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-15-160823	**16-08-1807-3-A**	**08/23/16 07:23**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:54**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-05-160823	**16-08-1807-4-A**	**08/23/16 07:20**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:56**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 19:16**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 19:18**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2474**	**N/A**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:13**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 11:34**	**160830L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	130	1.00	
Benzene	ND	5.1	1.00	
Bromobenzene	ND	5.1	1.00	
Bromochloromethane	ND	5.1	1.00	
Bromodichloromethane	ND	5.1	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	51	1.00	
n-Butylbenzene	ND	5.1	1.00	
sec-Butylbenzene	ND	5.1	1.00	
tert-Butylbenzene	ND	5.1	1.00	
Carbon Disulfide	ND	51	1.00	
Carbon Tetrachloride	ND	5.1	1.00	
Chlorobenzene	ND	5.1	1.00	
Chloroethane	ND	5.1	1.00	
Chloroform	ND	5.1	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.1	1.00	
4-Chlorotoluene	ND	5.1	1.00	
Dibromochloromethane	ND	5.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.1	1.00	
Dibromomethane	ND	5.1	1.00	
1,2-Dichlorobenzene	ND	5.1	1.00	
1,3-Dichlorobenzene	ND	5.1	1.00	
1,4-Dichlorobenzene	ND	5.1	1.00	
Dichlorodifluoromethane	ND	5.1	1.00	
1,1-Dichloroethane	ND	5.1	1.00	
1,2-Dichloroethane	ND	5.1	1.00	
1,1-Dichloroethene	ND	5.1	1.00	
c-1,2-Dichloroethene	ND	5.1	1.00	
t-1,2-Dichloroethene	ND	5.1	1.00	
1,2-Dichloropropane	ND	5.1	1.00	
1,3-Dichloropropane	ND	5.1	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	60-132	
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	103	62-146	
Toluene-d8	95	70-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/kg
Project: CG Roxane / SB0794			Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 14:01**	**160830L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	60-132	
Dibromofluoromethane	111	63-141	
1,2-Dichloroethane-d4	115	62-146	
Toluene-d8	100	70-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/kg
Project: CG Roxane / SB0794			Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-314-623**	**N/A**	**Solid**	**GC/MS Q**	**08/30/16**	**08/30/16 10:41**	**160830L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	60-132	
Dibromofluoromethane	88	63-141	
1,2-Dichloroethane-d4	94	62-146	
Toluene-d8	96	70-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-01-S-10-160823	**Sample**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:32**	**160829S02**
B-01-S-10-160823	**Matrix Spike**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:34**	**160829S02**
B-01-S-10-160823	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:36**	**160829S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	17.75	71	17.84	71	50-115	0	0-20	
Arsenic	1.611	25.00	27.38	103	25.97	97	75-125	5	0-20	
Barium	23.65	25.00	50.75	108	47.90	97	75-125	6	0-20	
Beryllium	ND	25.00	24.75	99	24.14	97	75-125	3	0-20	
Cadmium	ND	25.00	26.01	104	25.10	100	75-125	4	0-20	
Chromium	1.277	25.00	27.91	107	27.00	103	75-125	3	0-20	
Cobalt	2.128	25.00	28.08	104	27.13	100	75-125	3	0-20	
Copper	3.719	25.00	30.46	107	29.67	104	75-125	3	0-20	
Lead	1.873	25.00	26.95	100	26.10	97	75-125	3	0-20	
Molybdenum	ND	25.00	25.44	102	24.74	99	75-125	3	0-20	
Nickel	0.8091	25.00	25.77	100	24.90	96	75-125	3	0-20	
Selenium	ND	25.00	25.32	101	24.49	98	75-125	3	0-20	
Silver	ND	12.50	13.21	106	12.86	103	75-125	3	0-20	
Thallium	ND	25.00	23.79	95	23.44	94	75-125	1	0-20	
Vanadium	8.679	25.00	34.54	103	33.87	101	75-125	2	0-20	
Zinc	29.56	25.00	52.59	92	50.88	85	75-125	3	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-02-W-15.5-160823	**Sample**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:17**	**160829SA5A**
B-02-W-15.5-160823	**Matrix Spike**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:41**	**160829SA5A**
B-02-W-15.5-160823	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:58**	**160829SA5A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.4733	95	0.4714	94	72-132	0	0-10	
Arsenic	0.03909	0.5000	0.5305	98	0.5257	97	80-140	1	0-11	
Barium	0.02977	0.5000	0.5329	101	0.5361	101	87-123	1	0-6	
Beryllium	ND	0.5000	0.4819	96	0.4833	97	89-119	0	0-8	
Cadmium	ND	0.5000	0.4794	96	0.4815	96	82-124	0	0-7	
Chromium	ND	0.5000	0.4738	95	0.4744	95	86-122	0	0-8	
Cobalt	ND	0.5000	0.4891	98	0.4936	99	83-125	1	0-7	
Copper	ND	0.5000	0.4927	99	0.4936	99	78-126	0	0-7	
Lead	ND	0.5000	0.4732	95	0.4721	94	84-120	0	0-7	
Molybdenum	0.03819	0.5000	0.5119	95	0.5055	93	78-126	1	0-7	
Nickel	ND	0.5000	0.4921	98	0.4930	99	84-120	0	0-7	
Selenium	ND	0.5000	0.4735	95	0.4544	91	79-127	4	0-9	
Silver	ND	0.2500	0.2426	97	0.2443	98	86-128	1	0-7	
Thallium	ND	0.5000	0.4940	99	0.4877	98	79-121	1	0-8	
Vanadium	0.02552	0.5000	0.4966	94	0.4951	94	88-118	0	0-7	
Zinc	0.01203	0.5000	0.5232	102	0.5253	103	89-131	0	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-02-W-15.5-160823-DUP	**Sample**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:55**	**160829SA1**
B-02-W-15.5-160823-DUP	**Matrix Spike**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:57**	**160829SA1**
B-02-W-15.5-160823-DUP	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:59**	**160829SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01174	117	0.009458	95	55-133	22	0-20	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: CG Roxane / SB0794		Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1766-1	**Sample**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:22**	**160830S01**
16-08-1766-1	**Matrix Spike**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:17**	**160830S01**
16-08-1766-1	**Matrix Spike Duplicate**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:20**	**160830S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7891	95	0.7573	91	71-137	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SS-02-160823	**Sample**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 11:34**	**160830S003**
SS-02-160823	**Matrix Spike**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 12:03**	**160830S003**
SS-02-160823	**Matrix Spike Duplicate**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 12:29**	**160830S003**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	82.94	166	134.7	269	70-130	48	0-20	3,4
Benzene	ND	50.00	38.81	78	36.58	73	61-127	6	0-20	
Bromobenzene	ND	50.00	36.88	74	34.10	68	70-130	8	0-20	3
Bromochloromethane	ND	50.00	40.57	81	37.89	76	70-130	7	0-20	
Bromodichloromethane	ND	50.00	38.39	77	35.09	70	70-130	9	0-20	
Bromoform	ND	50.00	39.91	80	35.62	71	70-130	11	0-20	
Bromomethane	ND	50.00	40.65	81	38.57	77	70-130	5	0-20	
2-Butanone	ND	50.00	47.42	95	44.64	89	70-130	6	0-20	
n-Butylbenzene	ND	50.00	36.54	73	35.37	71	77-123	3	0-25	3
sec-Butylbenzene	ND	50.00	38.45	77	37.77	76	70-130	2	0-20	
tert-Butylbenzene	ND	50.00	40.40	81	37.85	76	70-130	7	0-20	
Carbon Disulfide	ND	50.00	42.98	86	40.87	82	70-130	5	0-20	
Carbon Tetrachloride	ND	50.00	38.90	78	38.16	76	51-135	2	0-29	
Chlorobenzene	ND	50.00	38.52	77	35.24	70	57-123	9	0-20	
Chloroethane	ND	50.00	45.33	91	41.11	82	70-130	10	0-20	
Chloroform	ND	50.00	37.60	75	35.01	70	70-130	7	0-20	
Chloromethane	ND	50.00	44.61	89	41.07	82	70-130	8	0-20	
2-Chlorotoluene	ND	50.00	37.80	76	35.28	71	70-130	7	0-20	
4-Chlorotoluene	ND	50.00	37.94	76	34.47	69	70-130	10	0-20	3
Dibromochloromethane	ND	50.00	39.50	79	35.85	72	70-130	10	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	42.32	85	39.54	79	70-130	7	0-20	
1,2-Dibromoethane	ND	50.00	42.77	86	38.09	76	64-124	12	0-20	
Dibromomethane	ND	50.00	41.05	82	36.67	73	70-130	11	0-20	
1,2-Dichlorobenzene	ND	50.00	33.12	66	29.82	60	35-131	10	0-25	
1,3-Dichlorobenzene	ND	50.00	34.74	69	31.13	62	70-130	11	0-20	3
1,4-Dichlorobenzene	ND	50.00	32.40	65	29.50	59	70-130	9	0-20	3
Dichlorodifluoromethane	ND	50.00	49.21	98	45.00	90	70-130	9	0-20	
1,1-Dichloroethane	ND	50.00	39.48	79	37.60	75	70-130	5	0-20	
1,2-Dichloroethane	ND	50.00	37.45	75	34.11	68	70-130	9	0-20	3
1,1-Dichloroethene	ND	50.00	41.72	83	40.05	80	47-143	4	0-25	
c-1,2-Dichloroethene	ND	50.00	38.22	76	36.51	73	70-130	5	0-20	
t-1,2-Dichloroethene	ND	50.00	43.29	87	40.68	81	70-130	6	0-20	
1,2-Dichloropropane	ND	50.00	40.07	80	37.55	75	79-115	6	0-25	3
1,3-Dichloropropane	ND	50.00	40.27	81	37.53	75	70-130	7	0-20	
2,2-Dichloropropane	ND	50.00	39.55	79	37.78	76	70-130	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 6 of 6

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	40.54	81	39.87	80	70-130	2	0-20	
c-1,3-Dichloropropene	ND	50.00	40.51	81	36.73	73	70-130	10	0-20	
t-1,3-Dichloropropene	ND	50.00	39.89	80	35.11	70	70-130	13	0-20	
Ethylbenzene	ND	50.00	41.17	82	39.48	79	57-129	4	0-22	
2-Hexanone	ND	50.00	50.06	100	45.69	91	70-130	9	0-20	
Isopropylbenzene	ND	50.00	41.92	84	40.65	81	70-130	3	0-20	
p-Isopropyltoluene	ND	50.00	38.89	78	37.85	76	70-130	3	0-20	
Methylene Chloride	ND	50.00	39.90	80	36.93	74	70-130	8	0-20	
4-Methyl-2-Pentanone	ND	50.00	54.17	108	51.07	102	70-130	6	0-20	
Naphthalene	ND	50.00	26.51	53	22.11	44	70-130	18	0-20	3
n-Propylbenzene	ND	50.00	39.03	78	37.47	75	70-130	4	0-20	
Styrene	ND	50.00	39.07	78	35.72	71	70-130	9	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	42.11	84	39.07	78	70-130	7	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	41.71	83	38.95	78	70-130	7	0-20	
Tetrachloroethene	ND	50.00	42.42	85	41.74	83	70-130	2	0-20	
Toluene	ND	50.00	42.46	85	40.15	80	63-123	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	25.67	51	21.57	43	70-130	17	0-20	3
1,2,4-Trichlorobenzene	ND	50.00	28.36	57	23.90	48	70-130	17	0-20	3
1,1,1-Trichloroethane	ND	50.00	39.58	79	38.14	76	70-130	4	0-20	
1,1,2-Trichloroethane	ND	50.00	40.69	81	36.79	74	70-130	10	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	43.08	86	42.26	85	70-130	2	0-20	
Trichloroethene	ND	50.00	42.66	85	40.90	82	44-158	4	0-20	
1,2,3-Trichloropropane	ND	50.00	41.91	84	37.20	74	70-130	12	0-20	
1,2,4-Trimethylbenzene	ND	50.00	38.42	77	35.92	72	70-130	7	0-20	
Trichlorofluoromethane	ND	50.00	43.54	87	39.13	78	70-130	11	0-20	
1,3,5-Trimethylbenzene	ND	50.00	38.81	78	36.71	73	70-130	6	0-20	
Vinyl Acetate	ND	50.00	3.273	7	0.7032	1	70-130	129	0-20	3,4
Vinyl Chloride	ND	50.00	50.36	101	46.91	94	49-139	7	0-47	
p/m-Xylene	ND	100.0	80.16	80	75.67	76	70-130	6	0-20	
o-Xylene	ND	50.00	39.85	80	37.73	75	70-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.63	87	41.55	83	57-123	5	0-21	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 1 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23162	**LCS**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 12:58**	**160829L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.70	99	80-120	73-127	
Arsenic	25.00	24.80	99	80-120	73-127	
Barium	25.00	25.11	100	80-120	73-127	
Beryllium	25.00	24.20	97	80-120	73-127	
Cadmium	25.00	25.56	102	80-120	73-127	
Chromium	25.00	25.90	104	80-120	73-127	
Cobalt	25.00	25.33	101	80-120	73-127	
Copper	25.00	26.00	104	80-120	73-127	
Lead	25.00	25.40	102	80-120	73-127	
Molybdenum	25.00	25.76	103	80-120	73-127	
Nickel	25.00	24.71	99	80-120	73-127	
Selenium	25.00	25.77	103	80-120	73-127	
Silver	12.50	12.77	102	80-120	73-127	
Thallium	25.00	26.79	107	80-120	73-127	
Vanadium	25.00	25.73	103	80-120	73-127	
Zinc	25.00	25.06	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 2 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15996	**LCS**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:40**	**160829LA5**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4894	98	80-120	73-127	
Arsenic	0.5000	0.4855	97	80-120	73-127	
Barium	0.5000	0.5277	106	80-120	73-127	
Beryllium	0.5000	0.4935	99	80-120	73-127	
Cadmium	0.5000	0.5124	102	80-120	73-127	
Chromium	0.5000	0.5167	103	80-120	73-127	
Cobalt	0.5000	0.5307	106	80-120	73-127	
Copper	0.5000	0.5166	103	80-120	73-127	
Lead	0.5000	0.5176	104	80-120	73-127	
Molybdenum	0.5000	0.4974	99	80-120	73-127	
Nickel	0.5000	0.5362	107	80-120	73-127	
Selenium	0.5000	0.4818	96	80-120	73-127	
Silver	0.2500	0.2525	101	80-120	73-127	
Thallium	0.5000	0.5251	105	80-120	73-127	
Vanadium	0.5000	0.4938	99	80-120	73-127	
Zinc	0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 3 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15997	**LCS**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:40**	**160829LA5A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4894	98	80-120	73-127	
Arsenic	0.5000	0.4855	97	80-120	73-127	
Barium	0.5000	0.5277	106	80-120	73-127	
Beryllium	0.5000	0.4935	99	80-120	73-127	
Cadmium	0.5000	0.5124	102	80-120	73-127	
Chromium	0.5000	0.5167	103	80-120	73-127	
Cobalt	0.5000	0.5307	106	80-120	73-127	
Copper	0.5000	0.5166	103	80-120	73-127	
Lead	0.5000	0.5176	104	80-120	73-127	
Molybdenum	0.5000	0.4974	99	80-120	73-127	
Nickel	0.5000	0.5362	107	80-120	73-127	
Selenium	0.5000	0.4818	96	80-120	73-127	
Silver	0.2500	0.2525	101	80-120	73-127	
Thallium	0.5000	0.5251	105	80-120	73-127	
Vanadium	0.5000	0.4938	99	80-120	73-127	
Zinc	0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 4 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7962	**LCS**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:52**	**160829LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009182	92	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 5 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-815	**LCS**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:52**	**160829LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009182	92	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane / SB0794			Page 6 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2474	**LCS**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:15**	**160830L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.7200	86	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 7 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-314-623	**LCS**	**Solid**	**GC/MS Q**	**08/30/16**	**08/30/16 09:34**	**160830L005**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	42.63	85	70-130	60-140	
Benzene	50.00	43.78	88	78-120	71-127	
Bromobenzene	50.00	49.06	98	70-130	60-140	
Bromochloromethane	50.00	44.36	89	70-130	60-140	
Bromodichloromethane	50.00	44.70	89	70-130	60-140	
Bromoform	50.00	45.82	92	70-130	60-140	
Bromomethane	50.00	43.15	86	70-130	60-140	
2-Butanone	50.00	46.50	93	70-130	60-140	
n-Butylbenzene	50.00	47.22	94	77-123	69-131	
sec-Butylbenzene	50.00	47.78	96	70-130	60-140	
tert-Butylbenzene	50.00	47.73	95	70-130	60-140	
Carbon Disulfide	50.00	47.10	94	70-130	60-140	
Carbon Tetrachloride	50.00	42.73	85	49-139	34-154	
Chlorobenzene	50.00	46.23	92	79-120	72-127	
Chloroethane	50.00	46.42	93	70-130	60-140	
Chloroform	50.00	40.80	82	70-130	60-140	
Chloromethane	50.00	44.90	90	70-130	60-140	
2-Chlorotoluene	50.00	48.09	96	70-130	60-140	
4-Chlorotoluene	50.00	46.19	92	70-130	60-140	
Dibromochloromethane	50.00	44.80	90	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	52.24	104	70-130	60-140	
1,2-Dibromoethane	50.00	46.70	93	70-130	60-140	
Dibromomethane	50.00	46.37	93	70-130	60-140	
1,2-Dichlorobenzene	50.00	46.44	93	75-120	68-128	
1,3-Dichlorobenzene	50.00	46.90	94	70-130	60-140	
1,4-Dichlorobenzene	50.00	45.54	91	70-130	60-140	
Dichlorodifluoromethane	50.00	48.99	98	70-130	60-140	
1,1-Dichloroethane	50.00	43.45	87	70-130	60-140	
1,2-Dichloroethane	50.00	41.38	83	70-130	60-140	
1,1-Dichloroethene	50.00	44.62	89	74-122	66-130	
c-1,2-Dichloroethene	50.00	43.66	87	70-130	60-140	
t-1,2-Dichloroethene	50.00	46.58	93	70-130	60-140	
1,2-Dichloropropane	50.00	45.84	92	79-115	73-121	
1,3-Dichloropropane	50.00	44.48	89	70-130	60-140	
2,2-Dichloropropane	50.00	42.64	85	70-130	60-140	
1,1-Dichloropropene	50.00	43.38	87	70-130	60-140	
c-1,3-Dichloropropene	50.00	48.11	96	70-130	60-140	
t-1,3-Dichloropropene	50.00	46.51	93	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 8 of 8

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	47.80	96	76-120	69-127	
2-Hexanone	50.00	54.09	108	70-130	60-140	
Isopropylbenzene	50.00	50.39	101	70-130	60-140	
p-Isopropyltoluene	50.00	48.27	97	70-130	60-140	
Methylene Chloride	50.00	41.72	83	70-130	60-140	
4-Methyl-2-Pentanone	50.00	55.87	112	70-130	60-140	
Naphthalene	50.00	48.25	97	70-130	60-140	
n-Propylbenzene	50.00	48.23	96	70-130	60-140	
Styrene	50.00	50.02	100	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	48.11	96	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	45.20	90	70-130	60-140	
Tetrachloroethene	50.00	46.99	94	70-130	60-140	
Toluene	50.00	49.40	99	77-120	70-127	
1,2,3-Trichlorobenzene	50.00	48.14	96	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	50.22	100	70-130	60-140	
1,1,1-Trichloroethane	50.00	42.36	85	70-130	60-140	
1,1,2-Trichloroethane	50.00	44.23	88	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.87	94	70-130	60-140	
Trichloroethene	50.00	48.02	96	70-130	60-140	
1,2,3-Trichloropropane	50.00	48.04	96	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	47.56	95	70-130	60-140	
Trichlorofluoromethane	50.00	43.34	87	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	48.33	97	70-130	60-140	
Vinyl Acetate	50.00	15.98	32	70-130	60-140	X
Vinyl Chloride	50.00	50.31	101	68-122	59-131	
p/m-Xylene	100.0	95.05	95	70-130	60-140	
o-Xylene	50.00	47.97	96	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	45.33	91	77-120	70-127	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-08-1807 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 7471A	EPA 7471A Total	776	Mercury 04	1
EPA 8260B	EPA 5030C	1055	GC/MS Q	2

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-08-1807 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-08-1807**

DATE: 8-23 to 8-24, 2016

PAGE: 1 OF 2

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:
__1___ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered) Title 22	Metals, Total (lab filtered) Title 22	metals Title 22	Metals, Cam 17		3 Day TAT	Standard TAT	Hold										
1	B-01-S-10-160823	8-23-16	0723	S	1	X						X			X										
2	B-01-S-18-160823		0726	S	1	X						X			X										
3	B-01-S-15-160823		0723	S	1	X						X			X										
4	B-01-S-05-160823		0720	S	1	X						X			X										
5	B-02-W-15.5-160823		1415	W	2		2	1	X	X				X											
6	B-02-W-15.5-160823-DUP		1415	W	2		2	1	X	X				X											
7	B-02-W-12.75-160823		1330	W	2		2	1	X	X				X											
8	B-02-W-23-160823		1600	W	2		2	1	X	X					X (KA)	X									
9	B-02-W-25.5-160823		1615	W	2		2	1	X	X					X (KA)	X									
10	SS-02-160823		1545	S	1	1					X				X										

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Geosyntec	Shipped via FedEx	8-24-16	11:30
FedEx	ECL	08-25-16	1015

06/02/14 Revision

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WO # / LAB USE ONLY: 16-08-1807

CHAIN OF CUSTODY RECORD

DATE: 8-23 to 8-24, 2016

PAGE: 2 OF 2

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:

__1___ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (lab filtered)	Metals Title 22	Standard TAT
11	SS-01-160823	8-23-16	1530	S	1	X					X	X
	SS-											

Relinquished by: (Signature) Geosyntec — Received by: (Signature/Affiliation) Shipped via FedEx — Date: 8-24-16 — Time: 11:30

Relinquished by: (Signature) FedEx — Received by: (Signature/Affiliation) EC1 — Date: 08-25-16 — Time: 1015

Relinquished by: (Signature) — Received by: (Signature/Affiliation) — Date: — Time:

06/02/14 Revision

Return to Contents

187

FedEx Express. **NEW** Package US Airbill

FedEx Tracking Number 8086 3188 4139

Form ID No. 0200

Recipient's Copy

1 From

Date 8-24-16

Sender's Name Kenjo Agustsson Phone 805 897-3800

Company Geosynte Consultants

Address 924 Anacapa St. Ste 4A

Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

2 Your Internal Billing Reference SP0794-02

3 To

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Envirotins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8086 3188 4139

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other Coolers

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☒ No Signature Required — Package may be left without obtaining a signature for delivery.

☐ Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods? One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Package 1 Total Weight ____ lbs. Credit Card Auth. ____

†Our liability is limited to US$ 100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

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FedEx TRK# 0200 8086 3188 4139

THU - 25 AUG 10:30A
PRIORITY OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 5163113 24AUG16 TYKA 539C1/1370/976E

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WORK ORDER NUMBER: 16-08- 1807

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 08 / ___ / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 4.2 °C (w/ CF): 4.2 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 300

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 300

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 778

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☑	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☑ 250 PBn ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ (HP) ☑ 8ozCGJ (HP) ☐ 16ozCGJ ☑ Sleeve (P) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 778

Reviewed by: 826

Return to Contents

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WORK ORDER NUMBER: 16-08- 1807

SAMPLE ANOMALY REPORT

DATE: 08 / 25 / 2016

SAMPLES, CONTAINERS, AND LABELS:

Comments

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☑ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

5) to 9) received. HNO_3 preserved container for Metals (lab filtered)

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 771

Reviewed by: 8/26

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Hoaibao Nguyen

From: Kevin Coffman [KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 4:52 PM
To: Hoaibao Nguyen
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Follow Up Flag: Follow up
Flag Status: Flagged

Correct. thanks

Kevin Coffman
Geosyntec
805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]
Sent: Thursday, September 01, 2016 4:51 PM
To: Kevin Coffman
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

No STLC for now but yes to SVOCs, correct?

Best Regards,

Hoaibao (Tina) Nguyen
Assistant Project Manager

From: Kevin Coffman [mailto:KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 4:31 PM
To: Hoaibao Nguyen
Cc: Ryan Smith (r.smith@cgroxane.com)
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,
Please hold the samples. We won't run the samples for STLC until we see the final metals results.

Thanks.

Kevin Coffman
Geosyntec
805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]
Sent: Thursday, September 01, 2016 3:55 PM
To: Kevin Coffman
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

For the soluble metals, it does not look like any of the metals were above the limit for STLC, did you still want us to run the soluble metals? If so, please let me know which elements.

Best Regards,

Hoaibao (Tina) Nguyen

Return to Contents

Assistant Project Manager

From: Kevin Coffman [mailto:KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 3:50 PM
To: Hoaibao Nguyen
Cc: Ryan Smith (r.smith@cgroxane.com)
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,
In addition to the VOCs on the 2 soil samples, please analyze them for SVOCs and soluble metals.

Standard TAT.

Thanks,

Kevin Coffman
Geosyntec
805.979.9134

From: Kevin Coffman
Sent: Monday, August 29, 2016 10:51 AM
To: 'Hoaibao Nguyen'
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,
As a follow up, please run soil samples SS-01-160823 and SS-02-160823 for VOCs.

Thanks.

Kevin Coffman
Geosyntec
805.979.9134

From: Kevin Coffman
Sent: Thursday, August 25, 2016 4:38 PM
To: 'Hoaibao Nguyen'
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Correct. Please run all water samples on 3 day TAT.

Thank you.

Kevin Coffman
Geosyntec
805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]
Sent: Thursday, August 25, 2016 4:37 PM
To: Kevin Coffman
Subject: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Hi Kevin,

Could you please confirm that you wanted all water samples listed on COC ran on a 3day TAT.

Return to Contents

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Supplemental Report 1

Additional requested analyses have been added to the original report.

WORK ORDER NUMBER: 16-08-1807

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/12/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-08-1807

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Work Order Narrative

Work Order: 16-08-1807 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/25/16. They were assigned to Work Order 16-08-1807.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	08/25/16 10:15
		Number of Containers:	16
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-01-S-10-160823	16-08-1807-1	08/23/16 07:23	1	Solid
B-01-S-18-160823	16-08-1807-2	08/23/16 07:26	1	Solid
B-01-S-15-160823	16-08-1807-3	08/23/16 07:23	1	Solid
B-01-S-05-160823	16-08-1807-4	08/23/16 07:20	1	Solid
B-02-W-15.5-160823	16-08-1807-5	08/23/16 14:15	2	Aqueous
B-02-W-15.5-160823-DUP	16-08-1807-6	08/23/16 14:15	2	Aqueous
B-02-W-12.25-160823	16-08-1807-7	08/23/16 13:30	2	Aqueous
B-02-W-23-160823	16-08-1807-8	08/23/16 16:00	2	Aqueous
B-02-W-25.5-160823	16-08-1807-9	08/23/16 16:15	2	Aqueous
SS-02-160823	16-08-1807-10	08/23/16 15:45	1	Solid
SS-01-160823	16-08-1807-11	08/23/16 15:30	1	Solid

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-01-S-10-160823 (16-08-1807-1)						
Arsenic	1.61		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	23.7		0.503	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.28		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.13		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	3.72		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	1.87		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.809		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	8.68		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	29.6		1.01	mg/kg	EPA 6010B	EPA 3050B
B-01-S-18-160823 (16-08-1807-2)						
Arsenic	3.62		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	52.9		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.55		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.79		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	6.36		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	2.53		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.04		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.83		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.0		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	38.4		0.980	mg/kg	EPA 6010B	EPA 3050B
B-01-S-15-160823 (16-08-1807-3)						
Arsenic	23.1		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	65.6		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.353		0.251	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.93		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.47		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	11.4		0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	7.55		0.503	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.05		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	59.6		1.01	mg/kg	EPA 6010B	EPA 3050B

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-01-S-05-160823 (16-08-1807-4)						
Arsenic	1.34		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	24.0		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.612		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.32		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	4.11		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	2.01		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.773		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	9.19		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	33.2		1.03	mg/kg	EPA 6010B	EPA 3050B
B-02-W-15.5-160823 (16-08-1807-5)						
Arsenic	0.0391		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0298		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0382		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0255		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0120		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.91		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0135		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.613		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.112		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.89		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0577		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.638		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.660		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.49		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00401		0.000500	mg/L	EPA 7470A	EPA 7470A Total

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-02-W-15.5-160823-DUP (16-08-1807-6)						
Antimony	0.0209		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0455		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0301		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0448		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0432		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0177		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.142		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	2.83		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Beryllium	0.0130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.589		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.102		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	1.85		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.204		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0502		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.598		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.606		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	1.35		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00396		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-12.25-160823 (16-08-1807-7)						
Arsenic	0.363		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.308		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0665		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0146		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.402		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.713		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.158		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0480		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.201		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.134		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.191		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.0539		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.456		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.649		0.0100	mg/L	EPA 6010B	EPA 3010A Total

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-02-W-23-160823 (16-08-1807-8)						
Arsenic	0.0133		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0107		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0509		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.06		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.242		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0476		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.576		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.0460		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0308		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.117		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.214		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.495		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Mercury	0.00107		0.000500	mg/L	EPA 7470A	EPA 7470A Total
B-02-W-25.5-160823 (16-08-1807-9)						
Antimony	0.0412		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.119		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0241		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0873		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0223		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0126		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.171		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	1.50		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cadmium	0.0151		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Chromium	0.281		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Cobalt	0.0316		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Lead	0.161		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0265		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.148		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.325		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.517		0.0100	mg/L	EPA 6010B	EPA 3010A Total

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-08-1807
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	08/25/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SS-02-160823 (16-08-1807-10)						
Arsenic	22.7		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	69.9		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.270		0.259	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.31		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.57		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	8.52		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.45		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.38		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	14.6		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.1		1.04	mg/kg	EPA 6010B	EPA 3050B
SS-01-160823 (16-08-1807-11)						
Antimony	1.84		0.781	mg/kg	EPA 6010B	EPA 3050B
Arsenic	29.0		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	53.0		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.10		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.48		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	9.18		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	4.59		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.74		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	4.15		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	26.9		1.04	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	**16-08-1807-1-A**	**08/23/16 07:23**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:32**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	1.61	0.754	1.01	
Barium	23.7	0.503	1.01	
Beryllium	ND	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	1.28	0.251	1.01	
Cobalt	2.13	0.251	1.01	
Copper	3.72	0.503	1.01	
Lead	1.87	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	0.809	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	8.68	0.251	1.01	
Zinc	29.6	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-18-160823	**16-08-1807-2-A**	**08/23/16 07:26**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:37**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	3.62	0.735	0.980	
Barium	52.9	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	8.55	0.245	0.980	
Cobalt	2.79	0.245	0.980	
Copper	6.36	0.490	0.980	
Lead	2.53	0.490	0.980	
Molybdenum	1.04	0.245	0.980	
Nickel	1.83	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	11.0	0.245	0.980	
Zinc	38.4	0.980	0.980	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-15-160823	**16-08-1807-3-A**	**08/23/16 07:23**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:39**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	23.1	0.754	1.01	
Barium	65.6	0.503	1.01	
Beryllium	0.353	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	1.93	0.251	1.01	
Cobalt	5.47	0.251	1.01	
Copper	11.4	0.503	1.01	
Lead	7.55	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	2.05	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	23.5	0.251	1.01	
Zinc	59.6	1.01	1.01	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-05-160823	**16-08-1807-4-A**	**08/23/16 07:20**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:41**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	1.34	0.773	1.03	
Barium	24.0	0.515	1.03	
Beryllium	ND	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	0.612	0.258	1.03	
Cobalt	2.32	0.258	1.03	
Copper	4.11	0.515	1.03	
Lead	2.01	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	0.773	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	9.19	0.258	1.03	
Zinc	33.2	1.03	1.03	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:42**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	22.7	0.777	1.04	
Barium	69.9	0.518	1.04	
Beryllium	0.270	0.259	1.04	
Cadmium	ND	0.518	1.04	
Chromium	1.31	0.259	1.04	
Cobalt	2.57	0.259	1.04	
Copper	8.52	0.518	1.04	
Lead	ND	0.518	1.04	
Molybdenum	2.45	0.259	1.04	
Nickel	1.38	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	14.6	0.259	1.04	
Zinc	42.1	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:47**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	1.84	0.781	1.04	
Arsenic	29.0	0.781	1.04	
Barium	53.0	0.521	1.04	
Beryllium	ND	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	7.10	0.260	1.04	
Cobalt	2.48	0.260	1.04	
Copper	9.18	0.521	1.04	
Lead	4.59	0.521	1.04	
Molybdenum	1.74	0.260	1.04	
Nickel	4.15	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	29.3	0.260	1.04	
Zinc	26.9	1.04	1.04	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-23162**	**N/A**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 12:57**	**160829L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	ND	0.721	0.962	
Barium	ND	0.481	0.962	
Beryllium	ND	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	ND	0.240	0.962	
Cobalt	ND	0.240	0.962	
Copper	ND	0.481	0.962	
Lead	ND	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	ND	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	ND	0.240	0.962	
Zinc	ND	0.962	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-A**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 19:33**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.158	0.0100	1.00	
Barium	2.91	0.0100	1.00	
Beryllium	0.0135	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.613	0.0100	1.00	
Cobalt	0.112	0.0100	1.00	
Copper	1.89	0.0100	1.00	
Lead	0.214	0.0100	1.00	
Molybdenum	0.0577	0.0100	1.00	
Nickel	0.638	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.660	0.0100	1.00	
Zinc	1.49	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-A**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:12**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.142	0.0100	1.00	
Barium	2.83	0.0100	1.00	
Beryllium	0.0130	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.589	0.0100	1.00	
Cobalt	0.102	0.0100	1.00	
Copper	1.85	0.0100	1.00	
Lead	0.204	0.0100	1.00	
Molybdenum	0.0502	0.0100	1.00	
Nickel	0.598	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.606	0.0100	1.00	
Zinc	1.35	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-A**	**08/23/16 13:30**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:13**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.402	0.0100	1.00	
Barium	0.713	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.158	0.0100	1.00	
Cobalt	0.0480	0.0100	1.00	
Copper	0.201	0.0100	1.00	
Lead	0.134	0.0100	1.00	
Molybdenum	0.191	0.0100	1.00	
Nickel	0.0539	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.456	0.0100	1.00	
Zinc	0.649	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-A**	**08/23/16 16:00**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:14**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0316	0.0100	1.00	
Barium	1.06	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.242	0.0100	1.00	
Cobalt	0.0476	0.0100	1.00	
Copper	0.576	0.0100	1.00	
Lead	0.0460	0.0100	1.00	
Molybdenum	0.0308	0.0100	1.00	
Nickel	0.117	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.214	0.0100	1.00	
Zinc	0.495	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-A**	**08/23/16 16:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:15**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.171	0.0100	1.00	
Barium	1.50	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	0.0151	0.0100	1.00	
Chromium	0.281	0.0100	1.00	
Cobalt	0.0316	0.0100	1.00	
Copper	0.130	0.0100	1.00	
Lead	0.161	0.0100	1.00	
Molybdenum	0.0265	0.0100	1.00	
Nickel	0.148	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.325	0.0100	1.00	
Zinc	0.517	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15996**	**N/A**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:39**	**160829LA5**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-B**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:17**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0391	0.0100	1.00	
Barium	0.0298	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0382	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0255	0.0100	1.00	
Zinc	0.0120	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-B**	**08/23/16 14:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:18**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0209	0.0150	1.00	
Arsenic	0.0455	0.0100	1.00	
Barium	0.0301	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0448	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0432	0.0100	1.00	
Zinc	0.0177	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-B**	**08/23/16 13:30**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:19**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.363	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.308	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0665	0.0100	1.00	
Zinc	0.0146	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-B**	**08/23/16 16:00**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:20**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0133	0.0100	1.00	
Barium	0.0107	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0509	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-B**	**08/23/16 16:15**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:21**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0412	0.0150	1.00	
Arsenic	0.119	0.0100	1.00	
Barium	0.0241	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0873	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0223	0.0100	1.00	
Zinc	0.0126	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15997**	**N/A**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:39**	**160829LA5A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-A**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/30/16 16:13**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00401	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-A**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:17**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00396	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-A**	**08/23/16 13:30**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:19**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-A**	**08/23/16 16:00**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:21**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00107	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-A**	**08/23/16 16:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:24**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7962**	**N/A**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:50**	**160829LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823	**16-08-1807-5-B**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:01**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-15.5-160823-DUP	**16-08-1807-6-B**	**08/23/16 14:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:55**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-12.25-160823	**16-08-1807-7-B**	**08/23/16 13:30**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:04**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-23-160823	**16-08-1807-8-B**	**08/23/16 16:00**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:06**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-02-W-25.5-160823	**16-08-1807-9-B**	**08/23/16 16:15**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 21:08**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-815**	**N/A**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:50**	**160829LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-10-160823	**16-08-1807-1-A**	**08/23/16 07:23**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:49**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-18-160823	**16-08-1807-2-A**	**08/23/16 07:26**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:52**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-15-160823	**16-08-1807-3-A**	**08/23/16 07:23**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:54**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-01-S-05-160823	**16-08-1807-4-A**	**08/23/16 07:20**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 18:56**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0794	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 19:16**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 19:18**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0820	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-16-272-2474**	**N/A**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:13**	**160830L01**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0877	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**GC/MS CCC**	**09/06/16**	**09/08/16 12:00**	**160906L05B**

Parameter	Result	RL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	1.00	
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	0.50	1.00	
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane / SB0794		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	45-105	
2-Fluorophenol	85	35-105	
Nitrobenzene-d5	65	35-100	
p-Terphenyl-d14	84	30-125	
Phenol-d6	82	40-100	
2,4,6-Tribromophenol	92	35-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**GC/MS CCC**	**09/06/16**	**09/08/16 12:18**	**160906L05B**

Parameter	Result	RL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	1.00	
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	9.9	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	9.9	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	0.50	1.00	
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane / SB0794		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	45-105	
2-Fluorophenol	99	35-105	
Nitrobenzene-d5	80	35-100	
p-Terphenyl-d14	92	30-125	
Phenol-d6	93	40-100	
2,4,6-Tribromophenol	103	35-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
		Units:	mg/kg
Project: CG Roxane / SB0794			Page 7 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-620-44**	**N/A**	**Solid**	**GC/MS CCC**	**09/06/16**	**09/07/16 09:54**	**160906L05B**

Parameter	Result	RL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	1.00	
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	0.50	1.00	
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane / SB0794		Page 9 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	45-105	
2-Fluorophenol	91	35-105	
Nitrobenzene-d5	79	35-100	
p-Terphenyl-d14	73	30-125	
Phenol-d6	85	40-100	
2,4,6-Tribromophenol	76	35-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-02-160823	**16-08-1807-10-A**	**08/23/16 15:45**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 11:34**	**160830L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	130	1.00	
Benzene	ND	5.1	1.00	
Bromobenzene	ND	5.1	1.00	
Bromochloromethane	ND	5.1	1.00	
Bromodichloromethane	ND	5.1	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	51	1.00	
n-Butylbenzene	ND	5.1	1.00	
sec-Butylbenzene	ND	5.1	1.00	
tert-Butylbenzene	ND	5.1	1.00	
Carbon Disulfide	ND	51	1.00	
Carbon Tetrachloride	ND	5.1	1.00	
Chlorobenzene	ND	5.1	1.00	
Chloroethane	ND	5.1	1.00	
Chloroform	ND	5.1	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.1	1.00	
4-Chlorotoluene	ND	5.1	1.00	
Dibromochloromethane	ND	5.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.1	1.00	
Dibromomethane	ND	5.1	1.00	
1,2-Dichlorobenzene	ND	5.1	1.00	
1,3-Dichlorobenzene	ND	5.1	1.00	
1,4-Dichlorobenzene	ND	5.1	1.00	
Dichlorodifluoromethane	ND	5.1	1.00	
1,1-Dichloroethane	ND	5.1	1.00	
1,2-Dichloroethane	ND	5.1	1.00	
1,1-Dichloroethene	ND	5.1	1.00	
c-1,2-Dichloroethene	ND	5.1	1.00	
t-1,2-Dichloroethene	ND	5.1	1.00	
1,2-Dichloropropane	ND	5.1	1.00	
1,3-Dichloropropane	ND	5.1	1.00	
2,2-Dichloropropane	ND	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	60-132	
Dibromofluoromethane	94	63-141	
1,2-Dichloroethane-d4	103	62-146	
Toluene-d8	95	70-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-01-160823	**16-08-1807-11-A**	**08/23/16 15:30**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 14:01**	**160830L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	60-132	
Dibromofluoromethane	111	63-141	
1,2-Dichloroethane-d4	115	62-146	
Toluene-d8	100	70-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 08/25/16
Work Order: 16-08-1807
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-314-623**	**N/A**	**Solid**	**GC/MS Q**	**08/30/16**	**08/30/16 10:41**	**160830L005**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	120	1.00	
Benzene	ND	5.0	1.00	
Bromobenzene	ND	5.0	1.00	
Bromochloromethane	ND	5.0	1.00	
Bromodichloromethane	ND	5.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	25	1.00	
2-Butanone	ND	50	1.00	
n-Butylbenzene	ND	5.0	1.00	
sec-Butylbenzene	ND	5.0	1.00	
tert-Butylbenzene	ND	5.0	1.00	
Carbon Disulfide	ND	50	1.00	
Carbon Tetrachloride	ND	5.0	1.00	
Chlorobenzene	ND	5.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	5.0	1.00	
Chloromethane	ND	25	1.00	
2-Chlorotoluene	ND	5.0	1.00	
4-Chlorotoluene	ND	5.0	1.00	
Dibromochloromethane	ND	5.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	10	1.00	
1,2-Dibromoethane	ND	5.0	1.00	
Dibromomethane	ND	5.0	1.00	
1,2-Dichlorobenzene	ND	5.0	1.00	
1,3-Dichlorobenzene	ND	5.0	1.00	
1,4-Dichlorobenzene	ND	5.0	1.00	
Dichlorodifluoromethane	ND	5.0	1.00	
1,1-Dichloroethane	ND	5.0	1.00	
1,2-Dichloroethane	ND	5.0	1.00	
1,1-Dichloroethene	ND	5.0	1.00	
c-1,2-Dichloroethene	ND	5.0	1.00	
t-1,2-Dichloroethene	ND	5.0	1.00	
1,2-Dichloropropane	ND	5.0	1.00	
1,3-Dichloropropane	ND	5.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane / SB0794		Page 6 of 6

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	92	60-132	
Dibromofluoromethane	88	63-141	
1,2-Dichloroethane-d4	94	62-146	
Toluene-d8	96	70-130	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3050B
	Method:	EPA 6010B
Project: CG Roxane / SB0794		Page 1 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-01-S-10-160823	**Sample**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:32**	**160829S02**
B-01-S-10-160823	**Matrix Spike**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:34**	**160829S02**
B-01-S-10-160823	**Matrix Spike Duplicate**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 14:36**	**160829S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	17.75	71	17.84	71	50-115	0	0-20	
Arsenic	1.611	25.00	27.38	103	25.97	97	75-125	5	0-20	
Barium	23.65	25.00	50.75	108	47.90	97	75-125	6	0-20	
Beryllium	ND	25.00	24.75	99	24.14	97	75-125	3	0-20	
Cadmium	ND	25.00	26.01	104	25.10	100	75-125	4	0-20	
Chromium	1.277	25.00	27.91	107	27.00	103	75-125	3	0-20	
Cobalt	2.128	25.00	28.08	104	27.13	100	75-125	3	0-20	
Copper	3.719	25.00	30.46	107	29.67	104	75-125	3	0-20	
Lead	1.873	25.00	26.95	100	26.10	97	75-125	3	0-20	
Molybdenum	ND	25.00	25.44	102	24.74	99	75-125	3	0-20	
Nickel	0.8091	25.00	25.77	100	24.90	96	75-125	3	0-20	
Selenium	ND	25.00	25.32	101	24.49	98	75-125	3	0-20	
Silver	ND	12.50	13.21	106	12.86	103	75-125	3	0-20	
Thallium	ND	25.00	23.79	95	23.44	94	75-125	1	0-20	
Vanadium	8.679	25.00	34.54	103	33.87	101	75-125	2	0-20	
Zinc	29.56	25.00	52.59	92	50.88	85	75-125	3	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 2 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-02-W-15.5-160823	**Sample**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:17**	**160829SA5A**
B-02-W-15.5-160823	**Matrix Spike**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:41**	**160829SA5A**
B-02-W-15.5-160823	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:58**	**160829SA5A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.4733	95	0.4714	94	72-132	0	0-10	
Arsenic	0.03909	0.5000	0.5305	98	0.5257	97	80-140	1	0-11	
Barium	0.02977	0.5000	0.5329	101	0.5361	101	87-123	1	0-6	
Beryllium	ND	0.5000	0.4819	96	0.4833	97	89-119	0	0-8	
Cadmium	ND	0.5000	0.4794	96	0.4815	96	82-124	0	0-7	
Chromium	ND	0.5000	0.4738	95	0.4744	95	86-122	0	0-8	
Cobalt	ND	0.5000	0.4891	98	0.4936	99	83-125	1	0-7	
Copper	ND	0.5000	0.4927	99	0.4936	99	78-126	0	0-7	
Lead	ND	0.5000	0.4732	95	0.4721	94	84-120	0	0-7	
Molybdenum	0.03819	0.5000	0.5119	95	0.5055	93	78-126	1	0-7	
Nickel	ND	0.5000	0.4921	98	0.4930	99	84-120	0	0-7	
Selenium	ND	0.5000	0.4735	95	0.4544	91	79-127	4	0-9	
Silver	ND	0.2500	0.2426	97	0.2443	98	86-128	1	0-7	
Thallium	ND	0.5000	0.4940	99	0.4877	98	79-121	1	0-8	
Vanadium	0.02552	0.5000	0.4966	94	0.4951	94	88-118	0	0-7	
Zinc	0.01203	0.5000	0.5232	102	0.5253	103	89-131	0	0-8	

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 3 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-02-W-15.5-160823-DUP	**Sample**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:55**	**160829SA1**
B-02-W-15.5-160823-DUP	**Matrix Spike**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:57**	**160829SA1**
B-02-W-15.5-160823-DUP	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:59**	**160829SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01174	117	0.009458	95	55-133	22	0-20	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane / SB0794			Page 4 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1766-1	**Sample**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:22**	**160830S01**
16-08-1766-1	**Matrix Spike**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:17**	**160830S01**
16-08-1766-1	**Matrix Spike Duplicate**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:20**	**160830S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7891	95	0.7573	91	71-137	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 5 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-2243-4	**Sample**	**Concrete**	**GC/MS CCC**	**09/06/16**	**09/07/16 14:33**	**160906S05**
16-08-2243-4	**Matrix Spike**	**Concrete**	**GC/MS CCC**	**09/06/16**	**09/07/16 12:25**	**160906S05**
16-08-2243-4	**Matrix Spike Duplicate**	**Concrete**	**GC/MS CCC**	**09/06/16**	**09/07/16 12:44**	**160906S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,6-Dichlorophenol	ND	5.000	4.404	88	4.410	88	75-125	0	0-20	
Acenaphthene	ND	5.000	4.071	81	4.190	84	34-148	3	0-20	
Acenaphthylene	ND	5.000	3.979	80	4.076	82	50-125	2	0-20	
Aniline	ND	5.000	4.869	97	4.128	83	50-130	16	0-20	
Anthracene	ND	5.000	4.230	85	4.284	86	25-140	1	0-20	
Azobenzene	ND	5.000	4.173	83	4.170	83	50-130	0	0-20	
Benzidine	ND	5.000	4.314	86	4.116	82	50-130	5	0-20	
Benzo (a) Anthracene	ND	5.000	4.170	83	4.207	84	30-145	1	0-20	
Benzo (a) Pyrene	ND	5.000	4.795	96	4.858	97	15-165	1	0-20	
Benzo (b) Fluoranthene	ND	5.000	4.470	89	4.509	90	20-160	1	0-20	
Benzo (g,h,i) Perylene	ND	5.000	4.477	90	4.582	92	20-180	2	0-20	
Benzo (k) Fluoranthene	ND	5.000	4.664	93	4.729	95	20-160	1	0-20	
Benzoic Acid	ND	5.000	4.911	98	4.738	95	50-130	4	0-20	
Benzyl Alcohol	ND	5.000	3.988	80	4.066	81	50-130	2	0-20	
Bis(2-Chloroethoxy) Methane	ND	5.000	4.041	81	4.012	80	30-185	1	0-20	
Bis(2-Chloroethyl) Ether	ND	5.000	3.951	79	4.032	81	10-160	2	0-20	
Bis(2-Chloroisopropyl) Ether	ND	5.000	3.833	77	3.908	78	35-170	2	0-20	
Bis(2-Ethylhexyl) Phthalate	ND	5.000	4.083	82	4.074	81	20-165	0	0-20	
4-Bromophenyl-Phenyl Ether	ND	5.000	4.342	87	4.326	87	50-130	0	0-20	
Butyl Benzyl Phthalate	ND	5.000	3.887	78	3.933	79	40-140	1	0-20	
4-Chloro-3-Methylphenol	ND	5.000	4.212	84	4.267	85	50-125	1	0-20	
4-Chloroaniline	ND	5.000	5.470	109	4.597	92	50-130	17	0-20	
2-Chloronaphthalene	ND	5.000	4.048	81	4.118	82	60-120	2	0-20	
2-Chlorophenol	ND	5.000	4.385	88	4.479	90	53-120	2	0-20	
4-Chlorophenyl-Phenyl Ether	ND	5.000	3.884	78	4.026	81	20-160	4	0-20	
Chrysene	ND	5.000	4.092	82	4.090	82	15-170	0	0-20	
Di-n-Butyl Phthalate	ND	5.000	3.966	79	4.021	80	20-120	1	0-20	
Di-n-Octyl Phthalate	ND	5.000	4.429	89	4.452	89	20-150	1	0-20	
Dibenz (a,h) Anthracene	ND	5.000	4.262	85	4.316	86	20-180	1	0-20	
Dibenzofuran	ND	5.000	3.996	80	4.105	82	50-130	3	0-20	
1,2-Dichlorobenzene	ND	5.000	4.054	81	4.105	82	32-129	1	0-20	
1,3-Dichlorobenzene	ND	5.000	4.087	82	4.123	82	20-130	1	0-20	
1,4-Dichlorobenzene	ND	5.000	4.038	81	4.122	82	43-120	2	0-26	
3,3'-Dichlorobenzidine	ND	5.000	6.872	137	5.857	117	20-180	16	0-20	
2,4-Dichlorophenol	ND	5.000	4.498	90	4.478	90	39-135	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 6 of 8

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Diethyl Phthalate	ND	5.000	3.623	72	3.765	75	20-145	4	0-20	
Dimethyl Phthalate	ND	5.000	3.991	80	4.177	84	50-125	5	0-20	
2,4-Dimethylphenol	ND	5.000	4.538	91	4.470	89	32-119	2	0-20	
4,6-Dinitro-2-Methylphenol	ND	5.000	4.457	89	4.509	90	20-180	1	0-20	
2,4-Dinitrophenol	ND	5.000	4.316	86	4.330	87	20-180	0	0-20	
2,4-Dinitrotoluene	ND	5.000	4.060	81	4.282	86	51-129	5	0-20	
2,6-Dinitrotoluene	ND	5.000	4.110	82	4.225	84	50-158	3	0-20	
Fluoranthene	ND	5.000	3.934	79	4.096	82	25-140	4	0-20	
Fluorene	ND	5.000	3.923	78	4.029	81	50-130	3	0-20	
Hexachloro-1,3-Butadiene	ND	5.000	4.030	81	4.019	80	20-120	0	0-20	
Hexachlorobenzene	ND	5.000	3.994	80	4.044	81	20-150	1	0-20	
Hexachlorocyclopentadiene	ND	5.000	3.422	68	3.717	74	50-130	8	0-20	
Hexachloroethane	ND	5.000	4.101	82	4.124	82	40-115	1	0-20	
Indeno (1,2,3-c,d) Pyrene	ND	5.000	4.261	85	4.260	85	20-180	0	0-20	
Isophorone	ND	5.000	3.884	78	3.856	77	20-196	1	0-20	
2-Methylnaphthalene	ND	5.000	4.252	85	4.233	85	20-145	0	0-20	
1-Methylnaphthalene	ND	5.000	3.781	76	3.742	75	20-180	1	0-20	
2-Methylphenol	ND	5.000	4.327	87	4.468	89	50-130	3	0-20	
3/4-Methylphenol	ND	10.00	8.659	87	9.050	91	50-130	4	0-20	
N-Nitroso-di-n-propylamine	ND	5.000	3.784	76	3.911	78	38-140	3	0-20	
N-Nitrosodimethylamine	ND	5.000	3.989	80	4.064	81	50-130	2	0-20	
N-Nitrosodiphenylamine	ND	5.000	4.982	100	5.022	100	50-130	1	0-20	
Naphthalene	ND	5.000	4.062	81	4.036	81	20-140	1	0-20	
4-Nitroaniline	ND	5.000	3.860	77	4.001	80	50-130	4	0-20	
3-Nitroaniline	ND	5.000	3.817	76	3.683	74	50-130	4	0-20	
2-Nitroaniline	ND	5.000	4.276	86	4.451	89	50-130	4	0-20	
Nitrobenzene	ND	5.000	4.213	84	4.191	84	35-180	1	0-20	
4-Nitrophenol	ND	5.000	3.928	79	4.070	81	14-128	4	0-59	
2-Nitrophenol	ND	5.000	4.727	95	4.618	92	25-185	2	0-20	
Pentachlorophenol	ND	5.000	3.773	75	3.873	77	10-124	3	0-20	
Phenanthrene	ND	5.000	4.223	84	4.306	86	50-125	2	0-20	
Phenol	ND	5.000	4.373	87	4.481	90	22-124	2	0-20	
Pyrene	ND	5.000	3.987	80	4.012	80	31-169	1	0-20	
Pyridine	ND	5.000	3.692	74	3.745	75	50-130	1	0-20	
1,2,4-Trichlorobenzene	ND	5.000	4.183	84	4.120	82	40-130	2	0-20	
2,4,6-Trichlorophenol	ND	5.000	4.432	89	4.556	91	37-144	3	0-20	
2,4,5-Trichlorophenol	ND	5.000	4.445	89	4.665	93	50-130	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 7 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SS-02-160823	**Sample**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 11:34**	**160830S003**
SS-02-160823	**Matrix Spike**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 12:03**	**160830S003**
SS-02-160823	**Matrix Spike Duplicate**	**Solid**	**GC/MS Q**	**08/29/16**	**08/30/16 12:29**	**160830S003**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	82.94	166	134.7	269	70-130	48	0-20	3,4
Benzene	ND	50.00	38.81	78	36.58	73	61-127	6	0-20	
Bromobenzene	ND	50.00	36.88	74	34.10	68	70-130	8	0-20	3
Bromochloromethane	ND	50.00	40.57	81	37.89	76	70-130	7	0-20	
Bromodichloromethane	ND	50.00	38.39	77	35.09	70	70-130	9	0-20	
Bromoform	ND	50.00	39.91	80	35.62	71	70-130	11	0-20	
Bromomethane	ND	50.00	40.65	81	38.57	77	70-130	5	0-20	
2-Butanone	ND	50.00	47.42	95	44.64	89	70-130	6	0-20	
n-Butylbenzene	ND	50.00	36.54	73	35.37	71	77-123	3	0-25	3
sec-Butylbenzene	ND	50.00	38.45	77	37.77	76	70-130	2	0-20	
tert-Butylbenzene	ND	50.00	40.40	81	37.85	76	70-130	7	0-20	
Carbon Disulfide	ND	50.00	42.98	86	40.87	82	70-130	5	0-20	
Carbon Tetrachloride	ND	50.00	38.90	78	38.16	76	51-135	2	0-29	
Chlorobenzene	ND	50.00	38.52	77	35.24	70	57-123	9	0-20	
Chloroethane	ND	50.00	45.33	91	41.11	82	70-130	10	0-20	
Chloroform	ND	50.00	37.60	75	35.01	70	70-130	7	0-20	
Chloromethane	ND	50.00	44.61	89	41.07	82	70-130	8	0-20	
2-Chlorotoluene	ND	50.00	37.80	76	35.28	71	70-130	7	0-20	
4-Chlorotoluene	ND	50.00	37.94	76	34.47	69	70-130	10	0-20	3
Dibromochloromethane	ND	50.00	39.50	79	35.85	72	70-130	10	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	42.32	85	39.54	79	70-130	7	0-20	
1,2-Dibromoethane	ND	50.00	42.77	86	38.09	76	64-124	12	0-20	
Dibromomethane	ND	50.00	41.05	82	36.67	73	70-130	11	0-20	
1,2-Dichlorobenzene	ND	50.00	33.12	66	29.82	60	35-131	10	0-25	
1,3-Dichlorobenzene	ND	50.00	34.74	69	31.13	62	70-130	11	0-20	3
1,4-Dichlorobenzene	ND	50.00	32.40	65	29.50	59	70-130	9	0-20	3
Dichlorodifluoromethane	ND	50.00	49.21	98	45.00	90	70-130	9	0-20	
1,1-Dichloroethane	ND	50.00	39.48	79	37.60	75	70-130	5	0-20	
1,2-Dichloroethane	ND	50.00	37.45	75	34.11	68	70-130	9	0-20	3
1,1-Dichloroethene	ND	50.00	41.72	83	40.05	80	47-143	4	0-25	
c-1,2-Dichloroethene	ND	50.00	38.22	76	36.51	73	70-130	5	0-20	
t-1,2-Dichloroethene	ND	50.00	43.29	87	40.68	81	70-130	6	0-20	
1,2-Dichloropropane	ND	50.00	40.07	80	37.55	75	79-115	6	0-25	3
1,3-Dichloropropane	ND	50.00	40.27	81	37.53	75	70-130	7	0-20	
2,2-Dichloropropane	ND	50.00	39.55	79	37.78	76	70-130	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 8 of 8

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	40.54	81	39.87	80	70-130	2	0-20	
c-1,3-Dichloropropene	ND	50.00	40.51	81	36.73	73	70-130	10	0-20	
t-1,3-Dichloropropene	ND	50.00	39.89	80	35.11	70	70-130	13	0-20	
Ethylbenzene	ND	50.00	41.17	82	39.48	79	57-129	4	0-22	
2-Hexanone	ND	50.00	50.06	100	45.69	91	70-130	9	0-20	
Isopropylbenzene	ND	50.00	41.92	84	40.65	81	70-130	3	0-20	
p-Isopropyltoluene	ND	50.00	38.89	78	37.85	76	70-130	3	0-20	
Methylene Chloride	ND	50.00	39.90	80	36.93	74	70-130	8	0-20	
4-Methyl-2-Pentanone	ND	50.00	54.17	108	51.07	102	70-130	6	0-20	
Naphthalene	ND	50.00	26.51	53	22.11	44	70-130	18	0-20	3
n-Propylbenzene	ND	50.00	39.03	78	37.47	75	70-130	4	0-20	
Styrene	ND	50.00	39.07	78	35.72	71	70-130	9	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	42.11	84	39.07	78	70-130	7	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	41.71	83	38.95	78	70-130	7	0-20	
Tetrachloroethene	ND	50.00	42.42	85	41.74	83	70-130	2	0-20	
Toluene	ND	50.00	42.46	85	40.15	80	63-123	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	25.67	51	21.57	43	70-130	17	0-20	3
1,2,4-Trichlorobenzene	ND	50.00	28.36	57	23.90	48	70-130	17	0-20	3
1,1,1-Trichloroethane	ND	50.00	39.58	79	38.14	76	70-130	4	0-20	
1,1,2-Trichloroethane	ND	50.00	40.69	81	36.79	74	70-130	10	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	43.08	86	42.26	85	70-130	2	0-20	
Trichloroethene	ND	50.00	42.66	85	40.90	82	44-158	4	0-20	
1,2,3-Trichloropropane	ND	50.00	41.91	84	37.20	74	70-130	12	0-20	
1,2,4-Trimethylbenzene	ND	50.00	38.42	77	35.92	72	70-130	7	0-20	
Trichlorofluoromethane	ND	50.00	43.54	87	39.13	78	70-130	11	0-20	
1,3,5-Trimethylbenzene	ND	50.00	38.81	78	36.71	73	70-130	6	0-20	
Vinyl Acetate	ND	50.00	3.273	7	0.7032	1	70-130	129	0-20	3,4
Vinyl Chloride	ND	50.00	50.36	101	46.91	94	49-139	7	0-47	
p/m-Xylene	ND	100.0	80.16	80	75.67	76	70-130	6	0-20	
o-Xylene	ND	50.00	39.85	80	37.73	75	70-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.63	87	41.55	83	57-123	5	0-21	

Return to Contents

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-23162	**LCS**	**Solid**	**ICP 8300**	**08/29/16**	**08/31/16 12:58**	**160829L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.70	99	80-120	73-127	
Arsenic	25.00	24.80	99	80-120	73-127	
Barium	25.00	25.11	100	80-120	73-127	
Beryllium	25.00	24.20	97	80-120	73-127	
Cadmium	25.00	25.56	102	80-120	73-127	
Chromium	25.00	25.90	104	80-120	73-127	
Cobalt	25.00	25.33	101	80-120	73-127	
Copper	25.00	26.00	104	80-120	73-127	
Lead	25.00	25.40	102	80-120	73-127	
Molybdenum	25.00	25.76	103	80-120	73-127	
Nickel	25.00	24.71	99	80-120	73-127	
Selenium	25.00	25.77	103	80-120	73-127	
Silver	12.50	12.77	102	80-120	73-127	
Thallium	25.00	26.79	107	80-120	73-127	
Vanadium	25.00	25.73	103	80-120	73-127	
Zinc	25.00	25.06	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15996	**LCS**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:40**	**160829LA5**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4894	98	80-120	73-127	
Arsenic	0.5000	0.4855	97	80-120	73-127	
Barium	0.5000	0.5277	106	80-120	73-127	
Beryllium	0.5000	0.4935	99	80-120	73-127	
Cadmium	0.5000	0.5124	102	80-120	73-127	
Chromium	0.5000	0.5167	103	80-120	73-127	
Cobalt	0.5000	0.5307	106	80-120	73-127	
Copper	0.5000	0.5166	103	80-120	73-127	
Lead	0.5000	0.5176	104	80-120	73-127	
Molybdenum	0.5000	0.4974	99	80-120	73-127	
Nickel	0.5000	0.5362	107	80-120	73-127	
Selenium	0.5000	0.4818	96	80-120	73-127	
Silver	0.2500	0.2525	101	80-120	73-127	
Thallium	0.5000	0.5251	105	80-120	73-127	
Vanadium	0.5000	0.4938	99	80-120	73-127	
Zinc	0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: CG Roxane / SB0794			Page 3 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15997	**LCS**	**Aqueous**	**ICP 7300**	**08/29/16**	**08/30/16 18:40**	**160829LA5A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4894	98	80-120	73-127	
Arsenic	0.5000	0.4855	97	80-120	73-127	
Barium	0.5000	0.5277	106	80-120	73-127	
Beryllium	0.5000	0.4935	99	80-120	73-127	
Cadmium	0.5000	0.5124	102	80-120	73-127	
Chromium	0.5000	0.5167	103	80-120	73-127	
Cobalt	0.5000	0.5307	106	80-120	73-127	
Copper	0.5000	0.5166	103	80-120	73-127	
Lead	0.5000	0.5176	104	80-120	73-127	
Molybdenum	0.5000	0.4974	99	80-120	73-127	
Nickel	0.5000	0.5362	107	80-120	73-127	
Selenium	0.5000	0.4818	96	80-120	73-127	
Silver	0.2500	0.2525	101	80-120	73-127	
Thallium	0.5000	0.5251	105	80-120	73-127	
Vanadium	0.5000	0.4938	99	80-120	73-127	
Zinc	0.5000	0.5132	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7962	**LCS**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:52**	**160829LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009182	92	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-815	**LCS**	**Aqueous**	**Mercury 04**	**08/29/16**	**08/29/16 20:52**	**160829LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009182	92	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane / SB0794			Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-2474	**LCS**	**Solid**	**Mercury 04**	**08/30/16**	**08/30/16 13:15**	**160830L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.7200	86	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-620-44	**LCS**	**Solid**	**GC/MS CCC**	**09/06/16**	**09/07/16 10:12**	**160906L05B**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
2,6-Dichlorophenol	5.000	4.479	90	60-110	52-118	
Acenaphthene	5.000	4.309	86	45-110	34-121	
Acenaphthylene	5.000	4.234	85	45-105	35-115	
Aniline	5.000	5.797	116	60-140	47-153	
Anthracene	5.000	4.431	89	55-105	47-113	
Azobenzene	5.000	4.304	86	60-140	47-153	
Benzidine	5.000	4.185	84	60-140	47-153	
Benzo (a) Anthracene	5.000	4.394	88	60-110	52-118	
Benzo (a) Pyrene	5.000	4.968	99	60-110	52-118	
Benzo (b) Fluoranthene	5.000	4.798	96	60-115	51-124	
Benzo (g,h,i) Perylene	5.000	4.689	94	60-125	49-136	
Benzo (k) Fluoranthene	5.000	4.750	95	60-125	49-136	
Benzoic Acid	5.000	3.395	68	30-140	12-158	
Benzyl Alcohol	5.000	4.190	84	60-125	49-136	
Bis(2-Chloroethoxy) Methane	5.000	4.203	84	60-110	52-118	
Bis(2-Chloroethyl) Ether	5.000	4.194	84	60-105	52-112	
Bis(2-Chloroisopropyl) Ether	5.000	4.061	81	60-115	51-124	
Bis(2-Ethylhexyl) Phthalate	5.000	4.271	85	60-125	49-136	
4-Bromophenyl-Phenyl Ether	5.000	4.343	87	60-115	51-124	
Butyl Benzyl Phthalate	5.000	4.183	84	60-125	49-136	
4-Chloro-3-Methylphenol	5.000	4.402	88	61-115	52-124	
4-Chloroaniline	5.000	5.975	119	60-140	47-153	
2-Chloronaphthalene	5.000	4.227	85	60-105	52-112	
2-Chlorophenol	5.000	4.624	92	60-105	52-112	
4-Chlorophenyl-Phenyl Ether	5.000	4.153	83	60-110	52-118	
Chrysene	5.000	4.308	86	60-110	52-118	
Di-n-Butyl Phthalate	5.000	4.224	84	60-110	52-118	
Di-n-Octyl Phthalate	5.000	4.624	92	60-130	48-142	
Dibenz (a,h) Anthracene	5.000	4.464	89	60-125	49-136	
Dibenzofuran	5.000	4.373	87	60-105	52-112	
1,2-Dichlorobenzene	5.000	4.234	85	60-95	54-101	
1,3-Dichlorobenzene	5.000	4.308	86	60-100	53-107	
1,4-Dichlorobenzene	5.000	4.305	86	61-105	54-112	
3,3'-Dichlorobenzidine	5.000	7.007	140	60-140	47-153	
2,4-Dichlorophenol	5.000	4.473	89	60-110	52-118	
Diethyl Phthalate	5.000	4.040	81	60-115	51-124	
Dimethyl Phthalate	5.000	4.244	85	60-110	52-118	
2,4-Dimethylphenol	5.000	4.696	94	60-105	52-112	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 8 of 10

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
4,6-Dinitro-2-Methylphenol	5.000	3.708	74	60-135	48-148	
2,4-Dinitrophenol	5.000	3.066	61	60-130	48-142	
2,4-Dinitrotoluene	5.000	4.508	90	50-115	39-126	
2,6-Dinitrotoluene	5.000	4.444	89	60-110	52-118	
Fluoranthene	5.000	4.352	87	60-115	51-124	
Fluorene	5.000	4.252	85	60-110	52-118	
Hexachloro-1,3-Butadiene	5.000	4.039	81	60-115	51-124	
Hexachlorobenzene	5.000	4.203	84	60-120	50-130	
Hexachlorocyclopentadiene	5.000	4.656	93	60-140	47-153	
Hexachloroethane	5.000	4.300	86	60-110	52-118	
Indeno (1,2,3-c,d) Pyrene	5.000	4.423	88	60-120	50-130	
Isophorone	5.000	4.106	82	60-110	52-118	
2-Methylnaphthalene	5.000	4.417	88	45-105	35-115	
1-Methylnaphthalene	5.000	3.924	78	60-140	47-153	
2-Methylphenol	5.000	4.573	91	60-105	52-112	
3/4-Methylphenol	10.00	9.157	92	60-105	52-112	
N-Nitroso-di-n-propylamine	5.000	4.055	81	64-115	56-124	
N-Nitrosodimethylamine	5.000	4.443	89	60-115	51-124	
N-Nitrosodiphenylamine	5.000	5.039	101	60-115	51-124	
Naphthalene	5.000	4.165	83	60-105	52-112	
4-Nitroaniline	5.000	4.344	87	60-115	51-124	
3-Nitroaniline	5.000	4.216	84	60-110	52-118	
2-Nitroaniline	5.000	4.626	93	45-120	32-132	
Nitrobenzene	5.000	4.343	87	60-115	51-124	
4-Nitrophenol	5.000	4.192	84	38-140	21-157	
2-Nitrophenol	5.000	4.657	93	60-110	52-118	
Pentachlorophenol	5.000	3.448	69	38-120	24-134	
Phenanthrene	5.000	4.508	90	60-110	52-118	
Phenol	5.000	4.626	93	59-125	48-136	
Pyrene	5.000	4.268	85	51-100	43-108	
Pyridine	5.000	4.004	80	60-140	47-153	
1,2,4-Trichlorobenzene	5.000	4.134	83	58-110	49-119	
2,4,6-Trichlorophenol	5.000	4.445	89	60-110	52-118	
2,4,5-Trichlorophenol	5.000	4.575	91	60-110	52-118	

Total number of LCS compounds: 72
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants		Date Received:	08/25/16
924 Anacapa Street, Suite 4A		Work Order:	16-08-1807
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 9 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-314-623	**LCS**	**Solid**	**GC/MS Q**	**08/30/16**	**08/30/16 09:34**	**160830L005**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	42.63	85	70-130	60-140	
Benzene	50.00	43.78	88	78-120	71-127	
Bromobenzene	50.00	49.06	98	70-130	60-140	
Bromochloromethane	50.00	44.36	89	70-130	60-140	
Bromodichloromethane	50.00	44.70	89	70-130	60-140	
Bromoform	50.00	45.82	92	70-130	60-140	
Bromomethane	50.00	43.15	86	70-130	60-140	
2-Butanone	50.00	46.50	93	70-130	60-140	
n-Butylbenzene	50.00	47.22	94	77-123	69-131	
sec-Butylbenzene	50.00	47.78	96	70-130	60-140	
tert-Butylbenzene	50.00	47.73	95	70-130	60-140	
Carbon Disulfide	50.00	47.10	94	70-130	60-140	
Carbon Tetrachloride	50.00	42.73	85	49-139	34-154	
Chlorobenzene	50.00	46.23	92	79-120	72-127	
Chloroethane	50.00	46.42	93	70-130	60-140	
Chloroform	50.00	40.80	82	70-130	60-140	
Chloromethane	50.00	44.90	90	70-130	60-140	
2-Chlorotoluene	50.00	48.09	96	70-130	60-140	
4-Chlorotoluene	50.00	46.19	92	70-130	60-140	
Dibromochloromethane	50.00	44.80	90	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	52.24	104	70-130	60-140	
1,2-Dibromoethane	50.00	46.70	93	70-130	60-140	
Dibromomethane	50.00	46.37	93	70-130	60-140	
1,2-Dichlorobenzene	50.00	46.44	93	75-120	68-128	
1,3-Dichlorobenzene	50.00	46.90	94	70-130	60-140	
1,4-Dichlorobenzene	50.00	45.54	91	70-130	60-140	
Dichlorodifluoromethane	50.00	48.99	98	70-130	60-140	
1,1-Dichloroethane	50.00	43.45	87	70-130	60-140	
1,2-Dichloroethane	50.00	41.38	83	70-130	60-140	
1,1-Dichloroethene	50.00	44.62	89	74-122	66-130	
c-1,2-Dichloroethene	50.00	43.66	87	70-130	60-140	
t-1,2-Dichloroethene	50.00	46.58	93	70-130	60-140	
1,2-Dichloropropane	50.00	45.84	92	79-115	73-121	
1,3-Dichloropropane	50.00	44.48	89	70-130	60-140	
2,2-Dichloropropane	50.00	42.64	85	70-130	60-140	
1,1-Dichloropropene	50.00	43.38	87	70-130	60-140	
c-1,3-Dichloropropene	50.00	48.11	96	70-130	60-140	
t-1,3-Dichloropropene	50.00	46.51	93	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	08/25/16
924 Anacapa Street, Suite 4A	Work Order:	16-08-1807
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 10 of 10

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	47.80	96	76-120	69-127	
2-Hexanone	50.00	54.09	108	70-130	60-140	
Isopropylbenzene	50.00	50.39	101	70-130	60-140	
p-Isopropyltoluene	50.00	48.27	97	70-130	60-140	
Methylene Chloride	50.00	41.72	83	70-130	60-140	
4-Methyl-2-Pentanone	50.00	55.87	112	70-130	60-140	
Naphthalene	50.00	48.25	97	70-130	60-140	
n-Propylbenzene	50.00	48.23	96	70-130	60-140	
Styrene	50.00	50.02	100	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	48.11	96	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	45.20	90	70-130	60-140	
Tetrachloroethene	50.00	46.99	94	70-130	60-140	
Toluene	50.00	49.40	99	77-120	70-127	
1,2,3-Trichlorobenzene	50.00	48.14	96	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	50.22	100	70-130	60-140	
1,1,1-Trichloroethane	50.00	42.36	85	70-130	60-140	
1,1,2-Trichloroethane	50.00	44.23	88	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.87	94	70-130	60-140	
Trichloroethene	50.00	48.02	96	70-130	60-140	
1,2,3-Trichloropropane	50.00	48.04	96	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	47.56	95	70-130	60-140	
Trichlorofluoromethane	50.00	43.34	87	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	48.33	97	70-130	60-140	
Vinyl Acetate	50.00	15.98	32	70-130	60-140	X
Vinyl Chloride	50.00	50.31	101	68-122	59-131	
p/m-Xylene	100.0	95.05	95	70-130	60-140	
o-Xylene	50.00	47.97	96	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	45.33	91	77-120	70-127	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-08-1807 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 8300	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 7471A	EPA 7471A Total	776	Mercury 04	1
EPA 8260B	EPA 5030C	1055	GC/MS Q	2
EPA 8270C	EPA 3545	923	GC/MS CCC	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-08-1807 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-08-1807**

DATE: 8-23 to 8-24, 2016

PAGE: 1 OF 2

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:
__1___ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered) Title 22	Metals, Total (lab filtered) Title 22	metals Title 22	Metals, Cam 17		3 Day TAT	Standard TAT	Hold										
1	B-01-S-10-160823	8-23-16	0723	S	1	X						X			X										
2	B-01-S-18-160823		0726	S	1	X						X			X										
3	B-01-S-15-160823		0723	S	1	X						X			X										
4	B-01-S-05-160823		0720	S	1	X						X			X										
5	B-02-W-15.5-160823		1415	W	2		2	1	X	X				X											
6	B-02-W-15.5-160823-DUP		1415	W	2		2	1	X	X				X											
7	B-02-W-12.75-160823		1330	W	2		2	1	X	X				X											
8	B-02-W-23-160823		1600	W	2		2	1	X	X					X	X									
9	B-02-W-25.5-160823		1615	W	2		2	1	X	X					X	X									
10	SS-02-160823		1545	S	1	1					X				X										

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Geosyntec	Shipped via FedEx	8-24-16	11:30
FedEx	ECL	08-25-16	1015

06/02/14 Revision

Return to Contents

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 16-08-1807

DATE: 8-23 to 8-24, 2016

PAGE: 2 OF 2

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:

__1___ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (lab filtered)	Metals Title 22	Standard TAT
11	SS-01-160823	8-23-16	1530	S	1	X					X	X
	SS-											

Relinquished by: (Signature) Geosyntec — Received by: (Signature/Affiliation) Shipped via FedEx — Date: 8-24-16 — Time: 11:30

Relinquished by: (Signature) FedEx — Received by: (Signature/Affiliation) EC1 — Date: 08-25-16 — Time: 1015

Relinquished by: (Signature) — Received by: (Signature/Affiliation) — Date: — Time:

06/02/14 Revision

Return to Contents

187

FedEx Express. **NEW** Package US Airbill

FedEx Tracking Number 8086 3188 4139

Form ID No. 0200

Recipient's Copy

1 From

Date 8-24-16

Sender's Name Kenjo Agustsson Phone 805 897-3800

Company Geosynte Consultants

Address 924 Anacapa St. Ste 4A

Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

2 Your Internal Billing Reference SP0794-02

3 To

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Envirotins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8086 3188 4139

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other Coolers

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☒ No Signature Required — Package may be left without obtaining a signature for delivery.

☐ Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods? One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Package 1 Total Weight ____ lbs. Credit Card Auth. ____

†Our liability is limited to US$ 100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

Rev. Date 1/12 • Part #167[illegible] • PRINTED IN U.S.A. SRF

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Return to Contents

FedEx TRK# 0200 8086 3188 4139

THU - 25 AUG 10:30A
PRIORITY OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 5163113 24AUG16 TYKA 539C1/1370/976E

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WORK ORDER NUMBER: 16-08- 1807

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 08 / ___ / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 4.2 °C (w/ CF): 4.2 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 3W

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 3W

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: ZH

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☑	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☑ 250 PBn ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ (HO) ☑ 8ozCGJ (HI) ☐ 16ozCGJ ☑ Sleeve (P) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: ZH

Reviewed by: 826

Return to Contents

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WORK ORDER NUMBER: 16-08- 1807

SAMPLE ANOMALY REPORT

DATE: 08 / 25 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☑ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

15) to 19) received. HNO_3 preserved container for Metals (lab filtered)

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 771

Reviewed by: 8/26

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Hoaibao Nguyen

From: Kevin Coffman [KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 4:52 PM
To: Hoaibao Nguyen
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Follow Up Flag: Follow up
Flag Status: Flagged

Correct. thanks

Kevin Coffman
Geosyntec
805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]
Sent: Thursday, September 01, 2016 4:51 PM
To: Kevin Coffman
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

No STLC for now but yes to SVOCs, correct?

Best Regards,

Hoaibao (Tina) Nguyen
Assistant Project Manager

From: Kevin Coffman [mailto:KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 4:31 PM
To: Hoaibao Nguyen
Cc: Ryan Smith (r.smith@cgroxane.com)
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,
Please hold the samples. We won't run the samples for STLC until we see the final metals results.

Thanks.

Kevin Coffman
Geosyntec
805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]
Sent: Thursday, September 01, 2016 3:55 PM
To: Kevin Coffman
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

For the soluble metals, it does not look like any of the metals were above the limit for STLC, did you still want us to run the soluble metals? If so, please let me know which elements.

Best Regards,

Hoaibao (Tina) Nguyen

Return to Contents

Assistant Project Manager

From: Kevin Coffman [mailto:KCoffman@Geosyntec.com]
Sent: Thursday, September 01, 2016 3:50 PM
To: Hoaibao Nguyen
Cc: Ryan Smith (r.smith@cgroxane.com)
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,
In addition to the VOCs on the 2 soil samples, please analyze them for SVOCs and soluble metals.

Standard TAT.

Thanks,

Kevin Coffman
Geosyntec
805.979.9134

From: Kevin Coffman
Sent: Monday, August 29, 2016 10:51 AM
To: 'Hoaibao Nguyen'
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Tina,
As a follow up, please run soil samples SS-01-160823 and SS-02-160823 for VOCs.

Thanks.

Kevin Coffman
Geosyntec
805.979.9134

From: Kevin Coffman
Sent: Thursday, August 25, 2016 4:38 PM
To: 'Hoaibao Nguyen'
Subject: RE: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Correct. Please run all water samples on 3 day TAT.

Thank you.

Kevin Coffman
Geosyntec
805.979.9134

From: Hoaibao Nguyen [mailto:HoaibaoNguyen@eurofinsUS.com]
Sent: Thursday, August 25, 2016 4:37 PM
To: Kevin Coffman
Subject: CG Roxane / SB0794 - 16-08-1807 - Sample Receipt Confirmation & COC Document

Hi Kevin,

Could you please confirm that you wanted all water samples listed on COC ran on a 3day TAT.

Return to Contents

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WORK ORDER NUMBER: 16-09-0004

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/13/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0004

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Work Order Narrative

Work Order: 16-09-0004 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/01/16. They were assigned to Work Order 16-09-0004.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0004
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/01/16 10:40
		Number of Containers:	12
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-13-W-12.5-160829	16-09-0004-1	08/29/16 16:00	2	Aqueous
MW-12-W-11.5-160829	16-09-0004-2	08/29/16 14:30	2	Aqueous
MW-12-W-8-160829	16-09-0004-3	08/29/16 14:00	2	Aqueous
MW-14-W-18.5-160830	16-09-0004-4	08/30/16 10:45	2	Aqueous
MW-15-W-14-160830	16-09-0004-5	08/30/16 15:15	2	Aqueous
MW-15-W-24-160830	16-09-0004-6	08/30/16 15:00	2	Aqueous

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0004
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/01/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-13-W-12.5-160829 (16-09-0004-1)						
Arsenic	0.0274		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0112		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0224		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00148		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0253		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0576		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.290		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.0248		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.0109		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.178		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.0325		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0252		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.0254		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0552		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.136		0.0500	mg/L	EPA 6020	EPA 3020A Total
MW-12-W-11.5-160829 (16-09-0004-2)						
Antimony	0.00632		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.111		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0351		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0351		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00206		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00553		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0282		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.282		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	5.27		0.0100	mg/L	EPA 6020	EPA 3020A Total
Beryllium	0.0108		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cadmium	0.0218		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.277		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.201		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	1.77		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.444		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0752		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.394		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.407		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	1.60		0.0500	mg/L	EPA 6020	EPA 3020A Total

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0004
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/01/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-12-W-8-160829 (16-09-0004-3)						
Antimony	0.00138		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0551		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0238		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Chromium	0.00103		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0290		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00175		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00405		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0395		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.180		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	2.32		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cadmium	0.0141		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.148		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.0664		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.803		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.133		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0438		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.175		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.257		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.478		0.0500	mg/L	EPA 6020	EPA 3020A Total
MW-14-W-18.5-160830 (16-09-0004-4)						
Antimony	0.0116		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0283		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0314		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00110		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0566		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00553		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0125		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.0249		0.0100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0692		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	2.58		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.0201		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.0154		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0295		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.103		0.0100	mg/L	EPA 6020	EPA 3020A Total
Mercury	0.00117		0.000500	mg/L	EPA 7470A	EPA 7470A Total

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0004
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/01/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-15-W-14-160830 (16-09-0004-5)						
Antimony	0.0102		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.201		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0390		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0887		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0327		0.00200	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0197		0.0100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	1.23		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	3.04		0.0100	mg/L	EPA 6020	EPA 3020A Total
Beryllium	0.0121		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.472		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.130		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.601		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.321		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.148		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.329		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.348		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	1.94		0.0500	mg/L	EPA 6020	EPA 3020A Total
MW-15-W-24-160830 (16-09-0004-6)						
Antimony	0.00508		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0629		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0230		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00131		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0541		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00107		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0148		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0111		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.404		0.0100	mg/L	EPA 6020	EPA 3020A Total
Barium	1.38		0.0100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.469		0.0100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.0650		0.0100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.331		0.0100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.0889		0.0100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0731		0.0100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.246		0.0100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.295		0.0100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.777		0.0500	mg/L	EPA 6020	EPA 3020A Total

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0004
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/01/16
Attn:	Kevin Coffman		Page 4 of 4

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-160829	**16-09-0004-1-B**	**08/29/16 16:00**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:36**	**160907LA3**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0100	10.0	
Arsenic	0.0576	0.0100	10.0	
Barium	0.290	0.0100	10.0	
Beryllium	ND	0.0100	10.0	
Cadmium	ND	0.0100	10.0	
Chromium	0.0248	0.0100	10.0	
Cobalt	0.0109	0.0100	10.0	
Copper	0.178	0.0100	10.0	
Lead	0.0325	0.0100	10.0	
Molybdenum	0.0252	0.0100	10.0	
Nickel	0.0254	0.0100	10.0	
Selenium	ND	0.0100	10.0	
Silver	ND	0.0100	10.0	
Thallium	ND	0.0100	10.0	
Vanadium	0.0552	0.0100	10.0	
Zinc	0.136	0.0500	10.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-11.5-160829	**16-09-0004-2-B**	**08/29/16 14:30**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:38**	**160907LA3**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0100	10.0	
Arsenic	0.282	0.0100	10.0	
Barium	5.27	0.0100	10.0	
Beryllium	0.0108	0.0100	10.0	
Cadmium	0.0218	0.0100	10.0	
Chromium	0.277	0.0100	10.0	
Cobalt	0.201	0.0100	10.0	
Copper	1.77	0.0100	10.0	
Lead	0.444	0.0100	10.0	
Molybdenum	0.0752	0.0100	10.0	
Nickel	0.394	0.0100	10.0	
Selenium	ND	0.0100	10.0	
Silver	ND	0.0100	10.0	
Thallium	ND	0.0100	10.0	
Vanadium	0.407	0.0100	10.0	
Zinc	1.60	0.0500	10.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-8-160829	**16-09-0004-3-B**	**08/29/16 14:00**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:41**	**160907LA3**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0100	10.0	
Arsenic	0.180	0.0100	10.0	
Barium	2.32	0.0100	10.0	
Beryllium	ND	0.0100	10.0	
Cadmium	0.0141	0.0100	10.0	
Chromium	0.148	0.0100	10.0	
Cobalt	0.0664	0.0100	10.0	
Copper	0.803	0.0100	10.0	
Lead	0.133	0.0100	10.0	
Molybdenum	0.0438	0.0100	10.0	
Nickel	0.175	0.0100	10.0	
Selenium	ND	0.0100	10.0	
Silver	ND	0.0100	10.0	
Thallium	ND	0.0100	10.0	
Vanadium	0.257	0.0100	10.0	
Zinc	0.478	0.0500	10.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 4 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-14-W-18.5-160830	**16-09-0004-4-B**	**08/30/16 10:45**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:43**	**160907LA3**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0249	0.0100	10.0	
Arsenic	0.0692	0.0100	10.0	
Barium	2.58	0.0100	10.0	
Beryllium	ND	0.0100	10.0	
Cadmium	ND	0.0100	10.0	
Chromium	ND	0.0100	10.0	
Cobalt	0.0201	0.0100	10.0	
Copper	0.0154	0.0100	10.0	
Lead	ND	0.0100	10.0	
Molybdenum	0.0295	0.0100	10.0	
Nickel	0.103	0.0100	10.0	
Selenium	ND	0.0100	10.0	
Silver	ND	0.0100	10.0	
Thallium	ND	0.0100	10.0	
Vanadium	ND	0.0100	10.0	
Zinc	ND	0.0500	10.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-14-160830	**16-09-0004-5-B**	**08/30/16 15:15**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:46**	**160907LA3**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0100	10.0	
Arsenic	1.23	0.0100	10.0	
Barium	3.04	0.0100	10.0	
Beryllium	0.0121	0.0100	10.0	
Cadmium	ND	0.0100	10.0	
Chromium	0.472	0.0100	10.0	
Cobalt	0.130	0.0100	10.0	
Copper	0.601	0.0100	10.0	
Lead	0.321	0.0100	10.0	
Molybdenum	0.148	0.0100	10.0	
Nickel	0.329	0.0100	10.0	
Selenium	ND	0.0100	10.0	
Silver	ND	0.0100	10.0	
Thallium	ND	0.0100	10.0	
Vanadium	0.348	0.0100	10.0	
Zinc	1.94	0.0500	10.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-24-160830	**16-09-0004-6-B**	**08/30/16 15:00**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:49**	**160907LA3**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0100	10.0	
Arsenic	0.404	0.0100	10.0	
Barium	1.38	0.0100	10.0	
Beryllium	ND	0.0100	10.0	
Cadmium	ND	0.0100	10.0	
Chromium	0.469	0.0100	10.0	
Cobalt	0.0650	0.0100	10.0	
Copper	0.331	0.0100	10.0	
Lead	0.0889	0.0100	10.0	
Molybdenum	0.0731	0.0100	10.0	
Nickel	0.246	0.0100	10.0	
Selenium	ND	0.0100	10.0	
Silver	ND	0.0100	10.0	
Thallium	ND	0.0100	10.0	
Vanadium	0.295	0.0100	10.0	
Zinc	0.777	0.0500	10.0	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5314**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:06**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-160829	**16-09-0004-1-A**	**08/29/16 16:00**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:11**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0274	0.00100	1.00	
Barium	0.0112	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0224	0.00100	1.00	
Nickel	0.00148	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0253	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-11.5-160829	**16-09-0004-2-A**	**08/29/16 14:30**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:41**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00632	0.00100	1.00	
Arsenic	0.111	0.00100	1.00	
Barium	0.0351	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0351	0.00100	1.00	
Nickel	0.00206	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00553	0.00100	1.00	
Zinc	0.0282	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-8-160829	**16-09-0004-3-A**	**08/29/16 14:00**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:44**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00138	0.00100	1.00	
Arsenic	0.0551	0.00100	1.00	
Barium	0.0238	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00103	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0290	0.00100	1.00	
Nickel	0.00175	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00405	0.00100	1.00	
Zinc	0.0395	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-14-W-18.5-160830	**16-09-0004-4-A**	**08/30/16 10:45**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:47**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0116	0.00100	1.00	
Arsenic	0.0283	0.00100	1.00	
Barium	0.0314	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00110	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0566	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00553	0.00100	1.00	
Zinc	0.0125	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-14-160830	**16-09-0004-5-A**	**08/30/16 15:15**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/09/16 15:33**	**160907LA3F**

Comment(s): - The reporting limit is elevated resulting from matrix interference.

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0102	0.00200	2.00	
Arsenic	0.201	0.00200	2.00	
Barium	0.0390	0.00200	2.00	
Beryllium	ND	0.00200	2.00	
Cadmium	ND	0.00200	2.00	
Chromium	ND	0.00200	2.00	
Cobalt	ND	0.00200	2.00	
Copper	ND	0.00200	2.00	
Lead	ND	0.00200	2.00	
Molybdenum	0.0887	0.00200	2.00	
Nickel	ND	0.00200	2.00	
Selenium	ND	0.00200	2.00	
Silver	ND	0.00200	2.00	
Thallium	ND	0.00200	2.00	
Vanadium	0.0327	0.00200	2.00	
Zinc	0.0197	0.0100	2.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-24-160830	**16-09-0004-6-A**	**08/30/16 15:00**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:52**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00508	0.00100	1.00	
Arsenic	0.0629	0.00100	1.00	
Barium	0.0230	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00131	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0541	0.00100	1.00	
Nickel	0.00107	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0148	0.00100	1.00	
Zinc	0.0111	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1205**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:06**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-160829	**16-09-0004-1-B**	**08/29/16 16:00**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:19**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-11.5-160829	**16-09-0004-2-B**	**08/29/16 14:30**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:21**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-8-160829	**16-09-0004-3-B**	**08/29/16 14:00**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:23**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-14-W-18.5-160830	**16-09-0004-4-B**	**08/30/16 10:45**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:26**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.00117	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-14-160830	**16-09-0004-5-B**	**08/30/16 15:15**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:28**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-24-160830	**16-09-0004-6-B**	**08/30/16 15:00**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:30**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7969**	**N/A**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 17:48**	**160907LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/01/16
Work Order: 16-09-0004
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-W-12.5-160829	**16-09-0004-1-A**	**08/29/16 16:00**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:01**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-11.5-160829	**16-09-0004-2-A**	**08/29/16 14:30**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:03**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-W-8-160829	**16-09-0004-3-A**	**08/29/16 14:00**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:06**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-14-W-18.5-160830	**16-09-0004-4-A**	**08/30/16 10:45**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:08**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-14-160830	**16-09-0004-5-A**	**08/30/16 15:15**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:15**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-W-24-160830	**16-09-0004-6-A**	**08/30/16 15:00**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:17**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-819**	**N/A**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 17:48**	**160907LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0082-4	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 17:49**	**160907SA3**
16-09-0082-4	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 17:38**	**160907SA3**
16-09-0082-4	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 17:41**	**160907SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.08938	89	0.08780	88	85-133	2	0-11	
Arsenic	0.005408	0.1000	0.09617	91	0.09622	91	73-127	0	0-11	
Barium	0.1926	0.1000	0.2981	106	0.2875	95	74-128	4	0-10	
Beryllium	ND	0.1000	0.07405	74	0.07732	77	56-122	4	0-11	
Cadmium	ND	0.1000	0.09469	95	0.09557	96	84-114	1	0-8	
Chromium	0.01294	0.1000	0.1043	91	0.1024	89	73-133	2	0-11	
Cobalt	0.004185	0.1000	0.08364	79	0.08823	84	79-121	5	0-10	
Copper	0.01241	0.1000	0.08577	73	0.09114	79	72-108	6	0-10	
Lead	0.005667	0.1000	0.1162	111	0.1161	110	79-121	0	0-10	
Molybdenum	0.008192	0.1000	0.1214	113	0.1206	112	83-137	1	0-10	
Nickel	0.01370	0.1000	0.09144	78	0.09688	83	68-122	6	0-10	
Selenium	0.006084	0.1000	0.09751	91	0.09647	90	59-125	1	0-12	
Silver	ND	0.05000	0.04647	93	0.04362	87	68-128	6	0-14	
Thallium	ND	0.1000	0.1069	107	0.1056	106	73-121	1	0-11	
Vanadium	0.03134	0.1000	0.1179	87	0.1238	92	77-137	5	0-15	
Zinc	0.06293	0.1000	0.1349	72	0.1490	86	43-145	10	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-13-W-12.5-160829	**Sample**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 18:01**	**160907SA1**
MW-13-W-12.5-160829	**Matrix Spike**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 17:57**	**160907SA1**
MW-13-W-12.5-160829	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 17:59**	**160907SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01018	102	0.01011	101	55-133	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-09-0082-4	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/08/16 17:49**	**160907SA3**
16-09-0082-4	**PDS**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/08/16 17:43**	**160907SA3**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1000	100	75-125	
Arsenic	0.005408	0.1000	0.09205	87	75-125	
Barium	0.1926	0.1000	0.2910	98	75-125	
Beryllium	ND	0.1000	0.07392	74	75-125	5
Cadmium	ND	0.1000	0.09084	91	75-125	
Chromium	0.01294	0.1000	0.09679	84	75-125	
Cobalt	0.004185	0.1000	0.08613	82	75-125	
Copper	0.01241	0.1000	0.08901	77	75-125	
Lead	0.005667	0.1000	0.1139	108	75-125	
Molybdenum	0.008192	0.1000	0.1192	111	75-125	
Nickel	0.01370	0.1000	0.09429	81	75-125	
Selenium	0.006084	0.1000	0.09098	85	75-125	
Silver	ND	0.05000	0.04464	89	75-125	
Thallium	ND	0.1000	0.1055	105	75-125	
Vanadium	0.03134	0.1000	0.1199	89	75-125	
Zinc	0.06293	0.1000	0.1354	73	75-125	5

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5314	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:08**	**160907LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1017	102	80-120	73-127	
Arsenic	0.1000	0.09964	100	80-120	73-127	
Barium	0.1000	0.09970	100	80-120	73-127	
Beryllium	0.1000	0.1041	104	80-120	73-127	
Cadmium	0.1000	0.1006	101	80-120	73-127	
Chromium	0.1000	0.1059	106	80-120	73-127	
Cobalt	0.1000	0.1023	102	80-120	73-127	
Copper	0.1000	0.1061	106	80-120	73-127	
Lead	0.1000	0.09828	98	80-120	73-127	
Molybdenum	0.1000	0.09988	100	80-120	73-127	
Nickel	0.1000	0.1050	105	80-120	73-127	
Selenium	0.1000	0.09866	99	80-120	73-127	
Silver	0.05000	0.05100	102	80-120	73-127	
Thallium	0.1000	0.09403	94	80-120	73-127	
Vanadium	0.1000	0.1033	103	80-120	73-127	
Zinc	0.1000	0.09993	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1205	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:08**	**160907LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1017	102	80-120	73-127	
Arsenic	0.1000	0.09964	100	80-120	73-127	
Barium	0.1000	0.09970	100	80-120	73-127	
Beryllium	0.1000	0.1041	104	80-120	73-127	
Cadmium	0.1000	0.1006	101	80-120	73-127	
Chromium	0.1000	0.1059	106	80-120	73-127	
Cobalt	0.1000	0.1023	102	80-120	73-127	
Copper	0.1000	0.1061	106	80-120	73-127	
Lead	0.1000	0.09828	98	80-120	73-127	
Molybdenum	0.1000	0.09988	100	80-120	73-127	
Nickel	0.1000	0.1050	105	80-120	73-127	
Selenium	0.1000	0.09866	99	80-120	73-127	
Silver	0.05000	0.05100	102	80-120	73-127	
Thallium	0.1000	0.09403	94	80-120	73-127	
Vanadium	0.1000	0.1033	103	80-120	73-127	
Zinc	0.1000	0.09993	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7969	**LCS**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 17:52**	**160907LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01069	107	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/01/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0004
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-819	**LCS**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/07/16 17:52**	**160907LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01069	107	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-09-0004 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	776	Mercury 04	1
EPA 7470A	EPA 7470A Total	776	Mercury 04	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0004 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0004**

DATE: 8-29-16 & 8-30-16

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): KA 8-31-16

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ~~☐ 5 DAYS~~ ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

__1___ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	~~TPH~~ (8015M) KA 8/31/16	~~VOCs~~ (8260B) KA 8/31/16	~~Metals (soil)~~ KA 8/31/16	Metals, total (Lab Filtered)	Metals, dissolved (Field Filtered)
1	MW-13-W-12.5-160829	8-29-16	1600	W	2		2	1				X	X
2	MW-12-W-11.5-160829	8-29-16	1430	W	2		2	1				X	X
3	MW-12-W-8-160829	8-29-16	1400	W	2		2	1				X	X
4	MW-14-W-18.5-160830	8-30-16	1045	W	2		1	1				X	X
5	MW-15-W-14-160830	8-30-16	1515	W	2		2	1				X	X
6	MW-15-W-24-160830	8-30-16	1500	W	2		1	1				X	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Geosyntec	Shipped via FedEx	8-31-16	11:00
FedEx		9/1/16	1040

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0004**

DATE: 8-29-16 & 8-30-16

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD") KA 8-31-16

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ~~☐ 5 DAYS~~ ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

__1___ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH	VOCs	Metals (soil)	Metals, tot (Lab Filtered)	Metals, dissolved (Field Filtered)
1	MW-13-W-12.5-160829	8-29-16	1600	W	2		2	1				X	X
2	MW-12-W-11.5-160829	8-29-16	1430	W	2		2	1				X	X
3	MW-12-W-8-160829	8-29-16	1400	W	2		2	1				X	X
4	MW-14-W-18.5-160830	8-30-16	1045	W	2		1	1				X	X
5	MW-15-W-14-160830	8-30-16	1515	W	2		2	1				X	X
6	MW-15-W-24-160830	8-30-16	1500	W	2		1	1				X	X

Relinquished by: (Signature) Geosyntec	Received by: (Signature/Affiliation) Shipped via FedEx	Date: 8-31-16	Time: 11:00
Relinquished by: (Signature) FedEx	Received by: (Signature/Affiliation)	Date: 9/1/16	Time: 1040
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

0004

FedEx Express NEW Package US Airbill

FedEx Tracking Number 8079 6482 7217

Form ID No. 0200

Recipient's Copy

1. From

Date 8-31-16

Sender's Name Kenjo Agustegan Phone 805 897-3800

Company Garcyaka Consultants

Address 974 Anacapa St. Ste 4A Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

2 Your Internal Billing Reference SR0794027*/2410

3 To

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Fluoting Calscience

Address 7440 Lincoln Way Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8079 6482 7217

4 Express Package

NOTE: Service order has ch

Next Business Day

- [ ] FedEx First Overnight Earliest next business morning d locations. Friday shipments will b Monday unless SATURDAY Deliv
- [x] FedEx Priority Overnigh Next business morning.* Friday sh delivered on Monday unless SATU is selected.
- [ ] FedEx Standard Overnig Next business afternoon.* Saturday Delivery NOT available.

FID 232795 31AUG16 1YKA 539C1/0053/976E

5 Packaging * Declare

- [ ] FedEx Envelope*

6 Special Handling al

- [ ] SATURDAY Delivery NOT available for FedEx Standard
- [x] No Signature Required Package may be left without obtaining a signature for delivery.

Does this shipment contai One box must be

- [ ] No
- [ ] Yes As per attached Shipper's Declaratic

Dangerous goods (including dry ice) cannot b or placed in a FedEx Express Drop Box.

7 Payment Bill to:

- [x] Sender Acct. No. in Section 1 will be billed.
- [ ] Recip

Total Packages Total Weight 35 lbs.

Credit Card Auth.

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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644

FedEx TRK# 0200 8079 6482 7217

92 APVA

92841 CA-US SNA

THU - 01 SEP 10:30A PRIORITY OVERNIGHT

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Return to Contents

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WORK ORDER NUMBER: 16-09[illegible]

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosynthec

DATE: 09 / 01 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.1 °C (w/ CF): 2.1 °C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 1S

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1S

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☑ MF 9/01/16	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☑ Total Metals (4) (-6) ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☑ 250PB (2) (-6) ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGBna_2 ☐ 1AGBs ☐ 1PB ☐ 1PBna ☑ 250PBnf ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1017

Reviewed by: ZB

Return to Contents

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WORK ORDER NUMBER: 16-09-0110

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/14/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0110

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Work Order Narrative

Work Order: 16-09-0110 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/02/16. They were assigned to Work Order 16-09-0110.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0110
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/02/16 10:10
		Number of Containers:	31
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-03-090116	16-09-0110-1	09/01/16 13:08	14	Aqueous
MW-15-090116	16-09-0110-2	09/01/16 14:36	16	Aqueous
QCTB-090116-2	16-09-0110-3	09/01/16 13:08	1	Aqueous

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0110
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/02/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-03-090116 (16-09-0110-1)						
Calcium	22.4		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.99		1.00	mg/L	EPA 200.7	N/A
Sodium	31.7		5.00	mg/L	EPA 200.7	N/A
Chloride	4.6		1.0	mg/L	EPA 300.0	N/A
Sulfate	14		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0119		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00797		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0120		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00118		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0145		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0138		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0105		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.0173		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00106		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0133		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00746		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0122		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	117		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	117		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	165		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	1.4		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.44		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.3		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.87		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.4		0.10	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0110
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/02/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-15-090116 (16-09-0110-2)						
Calcium	42.5		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.46		1.00	mg/L	EPA 200.7	N/A
Sodium	34.5		5.00	mg/L	EPA 200.7	N/A
Chloride	5.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	26		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0232		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0169		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0168		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00140		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0290		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0359		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00252		0.00100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.00110		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00424		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00118		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0197		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00272		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00535		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0165		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	120		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	120		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	180		1.00	mg/L	SM 2540 C	N/A
Phosphorus, Total	0.18		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.54		0.31	mg/L	SM 4500 P B/E	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-F**	**09/01/16 13:08**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 16:38**	**160902L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	4.6	1.0	1.00	
Sulfate	14	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-F**	**09/01/16 14:36**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 16:57**	**160902L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	5.7	1.0	1.00	
Sulfate	26	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6917**	**N/A**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 10:51**	**160902L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-J**	**09/01/16 13:08**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 18:16**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	22.4	1.00	10.0	
Magnesium	2.99	1.00	10.0	
Sodium	31.7	5.00	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-J**	**09/01/16 14:36**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 18:17**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	42.5	1.00	10.0	
Magnesium	2.46	1.00	10.0	
Sodium	34.5	5.00	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6678**	**N/A**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 15:57**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-J**	**09/01/16 13:08**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:48**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0138	0.00100	1.00	
Barium	0.0105	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.0173	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00106	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0133	0.00100	1.00	
Nickel	0.00746	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0122	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-J**	**09/01/16 14:36**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:50**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0290	0.00100	1.00	
Barium	0.0359	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00252	0.00100	1.00	
Cobalt	0.00110	0.00100	1.00	
Copper	0.00424	0.00100	1.00	
Lead	0.00118	0.00100	1.00	
Molybdenum	0.0197	0.00100	1.00	
Nickel	0.00272	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00535	0.00100	1.00	
Zinc	0.0165	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5315**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:20**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-I**	**09/01/16 13:08**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:38**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0119	0.00100	1.00	
Barium	0.00797	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0120	0.00100	1.00	
Nickel	0.00118	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0145	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-I**	**09/01/16 14:36**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:40**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0232	0.00100	1.00	
Barium	0.0169	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0168	0.00100	1.00	
Nickel	0.00140	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-I**	**09/01/16 14:36**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/13/16 11:14**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1206**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:20**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-J**	**09/01/16 13:08**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 12:41**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-J**	**09/01/16 14:36**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 12:44**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7967**	**N/A**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:27**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-I**	**09/01/16 13:08**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 12:46**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-I**	**09/01/16 14:36**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 12:48**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-818**	**N/A**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:27**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-O**	**09/01/16 14:36**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/08/16 13:24**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.4	1.00	
Acenaphthylene	ND	9.4	1.00	
Aniline	ND	9.4	1.00	
Anthracene	ND	9.4	1.00	
Azobenzene	ND	9.4	1.00	
Benzidine	ND	47	1.00	
Benzo (a) Anthracene	ND	9.4	1.00	
Benzo (a) Pyrene	ND	9.4	1.00	
Benzo (b) Fluoranthene	ND	9.4	1.00	
Benzo (g,h,i) Perylene	ND	9.4	1.00	
Benzo (k) Fluoranthene	ND	9.4	1.00	
Benzoic Acid	ND	47	1.00	
Benzyl Alcohol	ND	9.4	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.4	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.4	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.4	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.4	1.00	
Butyl Benzyl Phthalate	ND	9.4	1.00	
4-Chloro-3-Methylphenol	ND	9.4	1.00	
4-Chloroaniline	ND	9.4	1.00	
2-Chloronaphthalene	ND	9.4	1.00	
2-Chlorophenol	ND	9.4	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.4	1.00	
Chrysene	ND	9.4	1.00	
2,6-Dichlorophenol	ND	9.4	1.00	
Di-n-Butyl Phthalate	ND	9.4	1.00	
Di-n-Octyl Phthalate	ND	9.4	1.00	
Dibenz (a,h) Anthracene	ND	9.4	1.00	
Dibenzofuran	ND	9.4	1.00	
1,2-Dichlorobenzene	ND	9.4	1.00	
1,3-Dichlorobenzene	ND	9.4	1.00	
1,4-Dichlorobenzene	ND	9.4	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.4	1.00	
Dimethyl Phthalate	ND	9.4	1.00	
2,4-Dimethylphenol	ND	9.4	1.00	
4,6-Dinitro-2-Methylphenol	ND	47	1.00	
2,4-Dinitrophenol	ND	47	1.00	
2,4-Dinitrotoluene	ND	9.4	1.00	
2,6-Dinitrotoluene	ND	9.4	1.00	
Fluoranthene	ND	9.4	1.00	
Fluorene	ND	9.4	1.00	
Hexachloro-1,3-Butadiene	ND	9.4	1.00	
Hexachlorobenzene	ND	9.4	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.4	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.4	1.00	
Isophorone	ND	9.4	1.00	
2-Methylnaphthalene	ND	9.4	1.00	
1-Methylnaphthalene	ND	9.4	1.00	
2-Methylphenol	ND	9.4	1.00	
3/4-Methylphenol	ND	9.4	1.00	
N-Nitroso-di-n-propylamine	ND	9.4	1.00	
N-Nitrosodimethylamine	ND	9.4	1.00	
N-Nitrosodiphenylamine	ND	9.4	1.00	
Naphthalene	ND	9.4	1.00	
4-Nitroaniline	ND	9.4	1.00	
3-Nitroaniline	ND	9.4	1.00	
2-Nitroaniline	ND	9.4	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.4	1.00	
2-Nitrophenol	ND	9.4	1.00	
Pentachlorophenol	ND	9.4	1.00	
Phenanthrene	ND	9.4	1.00	
Phenol	ND	9.4	1.00	
Pyrene	ND	9.4	1.00	
Pyridine	ND	9.4	1.00	
1,2,4-Trichlorobenzene	ND	9.4	1.00	
2,4,6-Trichlorophenol	ND	9.4	1.00	
2,4,5-Trichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	65	50-110	
2-Fluorophenol	71	20-110	
Nitrobenzene-d5	66	40-110	
p-Terphenyl-d14	73	50-135	
Phenol-d6	71	10-115	
2,4,6-Tribromophenol	71	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-62**	**N/A**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 10:32**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 5 of 6

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	50-110	
2-Fluorophenol	84	20-110	
Nitrobenzene-d5	76	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	73	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090116	**16-09-0110-1-A**	**09/01/16 13:08**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/03/16 00:40**	**160902L058**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane / SB0794		Page 2 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	99	75-135	
Toluene-d8	95	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0794			Page 3 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-15-090116	**16-09-0110-2-A**	**09/01/16 14:36**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/03/16 01:08**	**160902L058**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane / SB0794		Page 4 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	87	80-120	
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-090116-2	**16-09-0110-3-A**	**09/01/16 13:08**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/07/16 17:50**	**160907L041**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	109	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2939**	**N/A**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/03/16 00:12**	**160902L058**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	101	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2943**	**N/A**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/07/16 16:54**	**160907L041**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane / SB0794		Page 10 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	87	80-120	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	108	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-03-090116	**16-09-0110-1**	**09/01/16 13:08**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	117	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	117	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	165	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	1.4	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.44	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	1.3	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	0.87	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	1.4	0.10	0.200		mg/L	N/A	09/12/16	Total Nitrogen by Calc

MW-15-090116	**16-09-0110-2**	**09/01/16 14:36**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	120	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	120	5.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	180	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.18	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	0.54	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	ND	0.10	0.200		mg/L	N/A	09/12/16	Total Nitrogen by Calc

Method Blank						**N/A**		**Aqueous**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-03-090116	**Sample**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 16:38**	**160902S01**
MW-03-090116	**Matrix Spike**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 17:16**	**160902S01**
MW-03-090116	**Matrix Spike Duplicate**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 17:35**	**160902S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	4.634	50.00	43.26	77	44.28	79	80-120	2	0-20	3
Sulfate	13.58	50.00	54.87	83	55.67	84	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 2 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0112-1	**Sample**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPS1**
16-09-0112-1	**Matrix Spike**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPS1**
16-09-0112-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1590	0.4000	0.4910	83	0.4853	82	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 3 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0112-1	**Sample**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4S1**
16-09-0112-1	**Matrix Spike**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4S1**
16-09-0112-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4864	1.220	1.502	83	1.485	82	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 4 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-15-090116	**Sample**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3S**
MW-15-090116	**Matrix Spike**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3S**
MW-15-090116	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3S**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.4533	91	0.4519	90	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 5 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0112-3	**Sample**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURS1**
16-09-0112-3	**Matrix Spike**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURS1**
16-09-0112-3	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9568	96	0.9365	94	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 6 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0040-7	**Sample**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:05**	**160907SA4**
16-09-0040-7	**Matrix Spike**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:02**	**160907SA4**
16-09-0040-7	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:03**	**160907SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	41.77	0.5000	42.02	4X	40.26	4X	80-120	4X	0-20	Q
Magnesium	12.12	0.5000	12.73	4X	12.25	4X	80-120	4X	0-20	Q
Sodium	66.32	5.000	71.65	4X	68.33	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 7 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0324-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:30**	**160907SA4**
16-09-0324-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:25**	**160907SA4**
16-09-0324-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:27**	**160907SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1044	104	0.1081	108	85-133	4	0-11	
Arsenic	0.001808	0.1000	0.09957	98	0.1026	101	73-127	3	0-11	
Barium	0.3280	0.1000	0.4126	85	0.4352	107	74-128	5	0-10	
Beryllium	ND	0.1000	0.08967	90	0.09387	94	56-122	5	0-11	
Cadmium	ND	0.1000	0.09514	95	0.09938	99	84-114	4	0-8	
Chromium	ND	0.1000	0.09666	97	0.1010	101	73-133	4	0-11	
Cobalt	ND	0.1000	0.08747	87	0.09174	92	79-121	5	0-10	
Copper	0.1914	0.1000	0.2678	76	0.2724	81	72-108	2	0-10	
Lead	0.001455	0.1000	0.1086	107	0.1131	112	79-121	4	0-10	
Molybdenum	0.003077	0.1000	0.1141	111	0.1178	115	83-137	3	0-10	
Nickel	0.006382	0.1000	0.09129	85	0.09450	88	68-122	3	0-10	
Selenium	ND	0.1000	0.09568	96	0.09916	99	59-125	4	0-12	
Silver	ND	0.05000	0.04476	90	0.05503	110	68-128	21	0-14	4
Thallium	ND	0.1000	0.1046	105	0.1084	108	73-121	4	0-11	
Vanadium	0.001499	0.1000	0.09563	94	0.09900	97	77-137	3	0-15	
Zinc	0.1771	0.1000	0.2490	72	0.2383	61	43-145	4	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 7470A Filt.
	Method:	EPA 7470A
Project: CG Roxane / SB0794		Page 8 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0181-6	**Sample**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:49**	**160907SA3**
16-09-0181-6	**Matrix Spike**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:36**	**160907SA3**
16-09-0181-6	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:47**	**160907SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009167	92	0.009390	94	55-133	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 9 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-03-090116	**Sample**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/03/16 00:40**	**160902S026**
MW-03-090116	**Matrix Spike**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/03/16 09:56**	**160902S026**
MW-03-090116	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/03/16 10:24**	**160902S026**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	58.73	117	60.15	120	22-178	2	0-26	
Benzene	ND	50.00	47.63	95	48.75	98	70-130	2	0-20	
Bromobenzene	ND	50.00	53.03	106	51.60	103	70-130	3	0-20	
Bromochloromethane	ND	50.00	46.34	93	44.34	89	70-132	4	0-20	
Bromodichloromethane	ND	50.00	50.73	101	50.46	101	69-135	1	0-20	
Bromoform	ND	50.00	48.55	97	49.07	98	70-133	1	0-20	
Bromomethane	ND	50.00	35.79	72	39.37	79	11-167	10	0-32	
2-Butanone	ND	50.00	38.76	78	38.66	77	39-159	0	0-21	
n-Butylbenzene	ND	50.00	51.77	104	53.65	107	62-152	4	0-28	
sec-Butylbenzene	ND	50.00	55.22	110	56.56	113	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	56.03	112	56.24	112	70-140	0	0-20	
Carbon Disulfide	ND	50.00	54.86	110	56.32	113	54-138	3	0-23	
Carbon Tetrachloride	ND	50.00	49.92	100	50.12	100	63-153	0	0-22	
Chlorobenzene	ND	50.00	48.42	97	48.99	98	70-130	1	0-20	
Chloroethane	ND	50.00	57.12	114	58.01	116	44-140	2	0-32	
Chloroform	ND	50.00	45.84	92	45.32	91	68-134	1	0-20	
Chloromethane	ND	50.00	43.32	87	43.29	87	20-158	0	0-40	
2-Chlorotoluene	ND	50.00	52.18	104	52.29	105	70-137	0	0-20	
4-Chlorotoluene	ND	50.00	51.64	103	52.45	105	70-130	2	0-20	
Dibromochloromethane	ND	50.00	50.30	101	51.78	104	70-133	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	48.48	97	50.18	100	67-133	3	0-20	
1,2-Dibromoethane	ND	50.00	47.89	96	49.08	98	70-130	2	0-20	
Dibromomethane	ND	50.00	46.81	94	45.95	92	70-130	2	0-20	
1,2-Dichlorobenzene	ND	50.00	51.08	102	52.64	105	70-130	3	0-20	
1,3-Dichlorobenzene	ND	50.00	51.66	103	52.59	105	70-130	2	0-20	
1,4-Dichlorobenzene	ND	50.00	48.53	97	49.56	99	70-130	2	0-20	
Dichlorodifluoromethane	ND	50.00	30.67	61	31.19	62	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	45.69	91	46.15	92	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	44.73	89	44.55	89	69-135	0	0-20	
1,1-Dichloroethene	ND	50.00	51.85	104	52.80	106	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	45.19	90	45.82	92	56-146	1	0-20	
t-1,2-Dichloroethene	ND	50.00	43.93	88	43.74	87	68-134	0	0-20	
1,2-Dichloropropane	ND	50.00	47.67	95	47.48	95	70-130	0	0-20	
1,3-Dichloropropane	ND	50.00	47.06	94	48.28	97	70-130	3	0-20	
2,2-Dichloropropane	ND	50.00	24.80	50	24.47	49	37-169	1	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 10 of 11

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	46.37	93	46.32	93	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	41.38	83	41.63	83	67-139	1	0-20	
t-1,3-Dichloropropene	ND	50.00	41.45	83	42.63	85	58-136	3	0-20	
Ethylbenzene	ND	50.00	52.61	105	53.13	106	70-134	1	0-24	
2-Hexanone	ND	50.00	40.37	81	43.20	86	59-149	7	0-20	
Isopropylbenzene	ND	50.00	55.85	112	56.86	114	70-141	2	0-27	
p-Isopropyltoluene	ND	50.00	55.85	112	56.71	113	65-143	2	0-39	
Methylene Chloride	ND	50.00	43.68	87	44.38	89	69-130	2	0-21	
4-Methyl-2-Pentanone	ND	50.00	44.33	89	47.80	96	67-139	8	0-20	
Naphthalene	ND	50.00	50.04	100	55.79	112	61-139	11	0-20	
n-Propylbenzene	ND	50.00	53.83	108	54.38	109	70-140	1	0-24	
Styrene	ND	50.00	52.92	106	53.51	107	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	52.21	104	52.45	105	70-135	0	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	45.77	92	46.97	94	70-137	3	0-20	
Tetrachloroethene	ND	50.00	42.86	86	42.28	85	33-147	1	0-30	
Toluene	ND	50.00	49.17	98	50.04	100	70-130	2	0-20	
1,2,3-Trichlorobenzene	ND	50.00	52.74	105	57.15	114	64-142	8	0-22	
1,2,4-Trichlorobenzene	ND	50.00	51.82	104	55.21	110	60-144	6	0-24	
1,1,1-Trichloroethane	ND	50.00	47.77	96	47.67	95	68-140	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	42.02	84	41.98	84	21-190	0	0-40	
1,1,2-Trichloroethane	ND	50.00	47.55	95	46.80	94	70-130	2	0-20	
Trichloroethene	ND	50.00	45.40	91	45.61	91	42-156	0	0-20	
Trichlorofluoromethane	ND	50.00	51.35	103	49.99	100	54-162	3	0-30	
1,2,3-Trichloropropane	ND	50.00	41.17	82	42.24	84	67-130	3	0-20	
1,2,4-Trimethylbenzene	ND	50.00	54.19	108	56.15	112	70-133	4	0-20	
1,3,5-Trimethylbenzene	ND	50.00	56.13	112	55.67	111	70-139	1	0-20	
Vinyl Acetate	ND	50.00	25.66	51	26.23	52	10-190	2	0-40	
Vinyl Chloride	ND	50.00	45.82	92	46.75	93	59-137	2	0-20	
p/m-Xylene	ND	100.0	114.6	115	114.0	114	67-145	1	0-28	
o-Xylene	ND	50.00	55.48	111	56.12	112	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	46.84	94	48.37	97	69-130	3	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 11 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0113-2	**Sample**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/07/16 18:18**	**160907S010**
16-09-0113-2	**Matrix Spike**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/07/16 23:24**	**160907S010**
16-09-0113-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/07/16 23:52**	**160907S010**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	48.90	98	49.52	99	74-122	1	0-21	
Carbon Tetrachloride	ND	50.00	55.01	110	56.06	112	60-144	2	0-21	
Chlorobenzene	ND	50.00	51.82	104	54.16	108	73-120	4	0-22	
1,2-Dibromoethane	ND	50.00	51.92	104	52.62	105	80-122	1	0-20	
1,2-Dichlorobenzene	ND	50.00	53.36	107	54.93	110	70-120	3	0-26	
1,2-Dichloroethane	ND	50.00	48.67	97	48.68	97	64-142	0	0-20	
1,1-Dichloroethene	ND	50.00	48.16	96	52.06	104	52-136	8	0-21	
Ethylbenzene	ND	50.00	53.28	107	55.43	111	77-125	4	0-24	
Toluene	ND	50.00	52.06	104	52.98	106	72-126	2	0-23	
Trichloroethene	ND	50.00	50.29	101	51.75	103	74-128	3	0-22	
Vinyl Chloride	ND	50.00	50.53	101	50.11	100	67-133	1	0-20	
p/m-Xylene	ND	100.0	114.4	114	117.3	117	63-129	3	0-25	
o-Xylene	ND	50.00	58.59	117	59.82	120	62-128	2	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	51.10	102	51.69	103	68-134	1	0-21	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-09-0324-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/08/16 20:30**	**160907SA4**
16-09-0324-1	**PDS**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/12/16 17:39**	**160907SA4**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1009	101	75-125	
Arsenic	0.001808	0.1000	0.09358	92	75-125	
Barium	0.3280	0.1000	0.4118	84	75-125	
Beryllium	ND	0.1000	0.09672	97	75-125	
Cadmium	ND	0.1000	0.09175	92	75-125	
Chromium	ND	0.1000	0.08458	85	75-125	
Cobalt	ND	0.1000	0.08526	85	75-125	
Copper	0.1914	0.1000	0.2549	63	75-125	5
Lead	0.001455	0.1000	0.1080	107	75-125	
Molybdenum	0.003077	0.1000	0.1144	111	75-125	
Nickel	0.006382	0.1000	0.08935	83	75-125	
Selenium	ND	0.1000	0.09117	91	75-125	
Silver	ND	0.05000	0.04668	93	75-125	
Thallium	ND	0.1000	0.1030	103	75-125	
Vanadium	0.001499	0.1000	0.09431	93	75-125	
Zinc	0.1771	0.1000	0.2517	75	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	**Sample**	**Aqueous**	**BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKD1**
16-09-0082-4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	465.0	461.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	**Sample**	**Aqueous**	**BUR03**	**N/A**	**09/02/16 21:40**	**G0902HCOD1**
16-09-0082-4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	465.0	461.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0109-3	**Sample**	**Aqueous**	**N/A**	**09/07/16 00:00**	**09/07/16 19:00**	**G0907TDSD1**
16-09-0109-3	**Sample Duplicate**	**Aqueous**	**N/A**	**09/07/16 00:00**	**09/07/16 19:00**	**G0907TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1670	1685	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane / SB0794			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0086-3	**Sample**	**Aqueous**	**BUR05**	**09/09/16 00:00**	**09/09/16 16:34**	**G0909TKND1**
16-09-0086-3	**Sample Duplicate**	**Aqueous**	**BUR05**	**09/09/16 00:00**	**09/09/16 16:34**	**G0909TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	74.90	73.92	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-6917	**LCS**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 11:32**	**160902L01**
099-12-906-6917	**LCSD**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 11:51**	**160902L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	48.05	96	48.20	96	90-110	0	0-15	
Sulfate	50.00	50.12	100	50.23	100	90-110	0	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-1055	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKB1**
099-15-859-1055	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	101.0	101	99.00	99	80-120	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5233	**LCS**	**Aqueous**	**N/A**	**09/07/16**	**09/07/16 19:00**	**G0907TDSL1**
099-12-180-5233	**LCSD**	**Aqueous**	**N/A**	**09/07/16**	**09/07/16 19:00**	**G0907TDSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	90.00	90	95.00	95	80-120	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 4 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2787	**LCS**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPL1**
099-05-098-2787	**LCSD**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4244	106	0.4256	106	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: N/A
Method: SM 4500 P B/E
Page 5 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-202	**LCS**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4L1**
099-14-276-202	**LCSD**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.299	106	1.302	107	80-120	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 09/02/16
924 Anacapa Street, Suite 4A	Work Order: 16-09-0110
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NH3 B/C
Project: CG Roxane / SB0794	Page 6 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2429	**LCS**	**Aqueous**	**BUR05**	**09/07/16**	**09/07/16 18:00**	**G0907NH3L1**
099-12-814-2429	**LCSD**	**Aqueous**	**BUR05**	**09/07/16**	**09/07/16 18:00**	**G0907NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.284	86	4.368	87	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 7 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-439	**LCS**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3L**
099-14-282-439	**LCSD**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3L**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5203	104	0.5218	104	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: N/A
Method: SM 5540C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3131	**LCS**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURL1**
099-05-093-3131	**LCSD**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9632	96	0.9546	95	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 9 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6678	**LCS**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 13:59**	**160907LA4A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.4804	96	85-115	
Magnesium	0.5000	0.5046	101	85-115	
Sodium	5.000	5.686	114	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 10 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5315	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:22**	**160907LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1019	102	80-120	73-127	
Arsenic	0.1000	0.1017	102	80-120	73-127	
Barium	0.1000	0.09975	100	80-120	73-127	
Beryllium	0.1000	0.1048	105	80-120	73-127	
Cadmium	0.1000	0.1008	101	80-120	73-127	
Chromium	0.1000	0.1061	106	80-120	73-127	
Cobalt	0.1000	0.1008	101	80-120	73-127	
Copper	0.1000	0.1050	105	80-120	73-127	
Lead	0.1000	0.09917	99	80-120	73-127	
Molybdenum	0.1000	0.09932	99	80-120	73-127	
Nickel	0.1000	0.1030	103	80-120	73-127	
Selenium	0.1000	0.1010	101	80-120	73-127	
Silver	0.05000	0.05105	102	80-120	73-127	
Thallium	0.1000	0.09542	95	80-120	73-127	
Vanadium	0.1000	0.1030	103	80-120	73-127	
Zinc	0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 11 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1206	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:22**	**160907LA4F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1019	102	80-120	73-127	
Arsenic	0.1000	0.1017	102	80-120	73-127	
Barium	0.1000	0.09975	100	80-120	73-127	
Beryllium	0.1000	0.1048	105	80-120	73-127	
Cadmium	0.1000	0.1008	101	80-120	73-127	
Chromium	0.1000	0.1061	106	80-120	73-127	
Cobalt	0.1000	0.1008	101	80-120	73-127	
Copper	0.1000	0.1050	105	80-120	73-127	
Lead	0.1000	0.09917	99	80-120	73-127	
Molybdenum	0.1000	0.09932	99	80-120	73-127	
Nickel	0.1000	0.1030	103	80-120	73-127	
Selenium	0.1000	0.1010	101	80-120	73-127	
Silver	0.05000	0.05105	102	80-120	73-127	
Thallium	0.1000	0.09542	95	80-120	73-127	
Vanadium	0.1000	0.1030	103	80-120	73-127	
Zinc	0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 12 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7967	**LCS**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:32**	**160907LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 13 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-818	**LCS**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:32**	**160907LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0110
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-62	**LCS**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 10:51**	**160903L05**
099-02-008-62	**LCSD**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 11:13**	**160903L05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	80.36	80	82.26	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	79.89	80	81.23	81	50-105	41-114	2	0-20	
Aniline	100.0	80.76	81	83.65	84	50-130	37-143	4	0-20	
Anthracene	100.0	80.00	80	81.07	81	55-110	46-119	1	0-20	
Azobenzene	100.0	81.13	81	83.15	83	50-130	37-143	2	0-20	
Benzidine	100.0	54.22	54	52.46	52	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	77.93	78	79.71	80	55-110	46-119	2	0-20	
Benzo (a) Pyrene	100.0	80.56	81	81.17	81	55-110	46-119	1	0-20	
Benzo (b) Fluoranthene	100.0	80.77	81	79.23	79	45-120	32-132	2	0-20	
Benzo (g,h,i) Perylene	100.0	91.10	91	93.80	94	40-125	26-139	3	0-20	
Benzo (k) Fluoranthene	100.0	77.57	78	81.87	82	45-125	32-138	5	0-20	
Benzoic Acid	100.0	56.28	56	56.92	57	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	76.93	77	77.22	77	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.74	80	82.26	82	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.66	78	81.21	81	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	78.87	79	81.58	82	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.91	85	87.67	88	40-125	26-139	3	0-20	
4-Bromophenyl-Phenyl Ether	100.0	80.70	81	82.29	82	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	84.53	85	87.79	88	45-115	33-127	4	0-20	
4-Chloro-3-Methylphenol	100.0	77.76	78	79.71	80	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	87.81	88	88.92	89	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	78.53	79	81.67	82	50-105	41-114	4	0-20	
2-Chlorophenol	100.0	82.87	83	84.80	85	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	77.23	77	78.45	78	50-110	40-120	2	0-20	
Chrysene	100.0	79.07	79	81.05	81	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	83.67	84	83.84	84	42-120	29-133	0	0-21	
Di-n-Butyl Phthalate	100.0	79.28	79	81.32	81	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	83.92	84	85.56	86	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	82.25	82	85.05	85	40-125	26-139	3	0-20	
Dibenzofuran	100.0	81.50	81	82.22	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	78.53	79	80.28	80	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	79.70	80	81.27	81	30-100	18-112	2	0-20	
1,4-Dichlorobenzene	100.0	78.88	79	80.07	80	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	92.71	93	92.52	93	20-110	5-125	0	0-20	
2,4-Dichlorophenol	100.0	82.54	83	84.39	84	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	76.76	77	77.88	78	40-120	27-133	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 15 of 20

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	77.57	78	79.03	79	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	85.54	86	86.63	87	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	74.99	75	77.37	77	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	71.33	71	74.71	75	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	78.12	78	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	79.38	79	81.89	82	50-115	39-126	3	0-20	
Fluoranthene	100.0	77.85	78	77.62	78	55-115	45-125	0	0-20	
Fluorene	100.0	79.31	79	80.21	80	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	80.08	80	81.20	81	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	78.62	79	80.77	81	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	74.87	75	80.02	80	50-130	37-143	7	0-20	
Hexachloroethane	100.0	80.87	81	81.82	82	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.82	84	87.11	87	45-125	32-138	4	0-20	
Isophorone	100.0	76.58	77	78.78	79	50-110	40-120	3	0-20	
2-Methylnaphthalene	100.0	84.80	85	86.08	86	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	74.31	74	75.83	76	45-105	35-115	2	0-20	
2-Methylphenol	100.0	80.95	81	84.29	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	166.2	83	169.1	85	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	74.82	75	76.66	77	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	74.91	75	78.23	78	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	91.22	91	95.08	95	50-110	40-120	4	0-20	
Naphthalene	100.0	79.47	79	81.21	81	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	71.65	72	72.63	73	35-120	21-134	1	0-20	
3-Nitroaniline	100.0	63.93	64	64.31	64	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	79.91	80	82.30	82	50-115	39-126	3	0-20	
Nitrobenzene	100.0	81.04	81	83.76	84	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	83.97	84	83.44	83	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	77.04	77	79.47	79	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	66.08	66	67.50	68	40-115	28-128	2	0-40	
Phenanthrene	100.0	82.10	82	83.87	84	50-115	39-126	2	0-20	
Phenol	100.0	83.37	83	85.09	85	10-115	0-132	2	0-23	
Pyrene	100.0	82.91	83	85.15	85	50-130	37-143	3	0-20	
Pyridine	100.0	74.55	75	76.21	76	52-115	42-126	2	0-20	
1,2,4-Trichlorobenzene	100.0	80.11	80	81.45	81	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	77.66	78	80.65	81	50-115	39-126	4	0-20	
2,4,5-Trichlorophenol	100.0	77.96	78	81.60	82	50-110	40-120	5	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 20

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 17 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2939	**LCS**	**Aqueous**	**GC/MS V V**	**09/02/16**	**09/02/16 23:16**	**160902L058**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	55.56	111	12-150	0-173	
Benzene	50.00	45.16	90	80-120	73-127	
Bromobenzene	50.00	52.26	105	80-120	73-127	
Bromochloromethane	50.00	44.00	88	80-122	73-129	
Bromodichloromethane	50.00	48.77	98	80-123	73-130	
Bromoform	50.00	48.45	97	74-134	64-144	
Bromomethane	50.00	48.60	97	22-160	0-183	
2-Butanone	50.00	41.05	82	44-164	24-184	
n-Butylbenzene	50.00	50.06	100	80-132	71-141	
sec-Butylbenzene	50.00	52.91	106	80-129	72-137	
tert-Butylbenzene	50.00	51.66	103	80-130	72-138	
Carbon Disulfide	50.00	48.79	98	60-126	49-137	
Carbon Tetrachloride	50.00	45.63	91	64-148	50-162	
Chlorobenzene	50.00	47.53	95	80-120	73-127	
Chloroethane	50.00	48.95	98	63-123	53-133	
Chloroform	50.00	42.48	85	79-121	72-128	
Chloromethane	50.00	43.45	87	43-133	28-148	
2-Chlorotoluene	50.00	50.82	102	80-130	72-138	
4-Chlorotoluene	50.00	49.37	99	80-121	73-128	
Dibromochloromethane	50.00	51.48	103	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	50.60	101	68-128	58-138	
1,2-Dibromoethane	50.00	48.15	96	80-120	73-127	
Dibromomethane	50.00	44.72	89	80-121	73-128	
1,2-Dichlorobenzene	50.00	50.28	101	80-120	73-127	
1,3-Dichlorobenzene	50.00	48.97	98	80-121	73-128	
1,4-Dichlorobenzene	50.00	46.66	93	80-120	73-127	
Dichlorodifluoromethane	50.00	48.59	97	25-187	0-214	
1,1-Dichloroethane	50.00	42.89	86	75-120	68-128	
1,2-Dichloroethane	50.00	44.90	90	80-123	73-130	
1,1-Dichloroethene	50.00	47.86	96	74-122	66-130	
c-1,2-Dichloroethene	50.00	43.00	86	75-123	67-131	
t-1,2-Dichloroethene	50.00	40.23	80	70-124	61-133	
1,2-Dichloropropane	50.00	45.51	91	80-120	73-127	
1,3-Dichloropropane	50.00	47.85	96	80-120	73-127	
2,2-Dichloropropane	50.00	35.98	72	49-151	32-168	
1,1-Dichloropropene	50.00	42.13	84	76-120	69-127	
c-1,3-Dichloropropene	50.00	45.85	92	80-124	73-131	
t-1,3-Dichloropropene	50.00	48.84	98	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 18 of 20

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.91	102	80-120	73-127	
2-Hexanone	50.00	45.42	91	57-147	42-162	
Isopropylbenzene	50.00	54.54	109	80-127	72-135	
p-Isopropyltoluene	50.00	53.57	107	80-125	72-132	
Methylene Chloride	50.00	42.56	85	74-122	66-130	
4-Methyl-2-Pentanone	50.00	46.79	94	71-125	62-134	
Naphthalene	50.00	54.05	108	54-144	39-159	
n-Propylbenzene	50.00	53.61	107	80-127	72-135	
Styrene	50.00	53.10	106	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	52.06	104	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	44.57	89	78-126	70-134	
Tetrachloroethene	50.00	51.02	102	57-141	43-155	
Toluene	50.00	46.97	94	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	53.09	106	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	52.27	105	57-153	41-169	
1,1,1-Trichloroethane	50.00	44.05	88	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.37	97	58-148	43-163	
1,1,2-Trichloroethane	50.00	47.97	96	80-120	73-127	
Trichloroethene	50.00	43.61	87	80-120	73-127	
Trichlorofluoromethane	50.00	48.17	96	64-136	52-148	
1,2,3-Trichloropropane	50.00	46.67	93	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	52.60	105	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	55.26	111	80-126	72-134	
Vinyl Acetate	50.00	30.01	60	34-172	11-195	
Vinyl Chloride	50.00	48.52	97	67-127	57-137	
p/m-Xylene	100.0	112.0	112	80-127	72-135	
o-Xylene	50.00	54.72	109	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.76	94	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0110
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 19 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2943	**LCS**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/07/16 15:58**	**160907L041**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	51.90	104	12-150	0-173	
Benzene	50.00	44.34	89	80-120	73-127	
Bromobenzene	50.00	49.26	99	80-120	73-127	
Bromochloromethane	50.00	45.58	91	80-122	73-129	
Bromodichloromethane	50.00	47.70	95	80-123	73-130	
Bromoform	50.00	46.36	93	74-134	64-144	
Bromomethane	50.00	43.20	86	22-160	0-183	
2-Butanone	50.00	46.47	93	44-164	24-184	
n-Butylbenzene	50.00	51.27	103	80-132	71-141	
sec-Butylbenzene	50.00	52.64	105	80-129	72-137	
tert-Butylbenzene	50.00	51.63	103	80-130	72-138	
Carbon Disulfide	50.00	43.61	87	60-126	49-137	
Carbon Tetrachloride	50.00	50.63	101	64-148	50-162	
Chlorobenzene	50.00	46.75	94	80-120	73-127	
Chloroethane	50.00	45.71	91	63-123	53-133	
Chloroform	50.00	44.25	88	79-121	72-128	
Chloromethane	50.00	39.56	79	43-133	28-148	
2-Chlorotoluene	50.00	49.90	100	80-130	72-138	
4-Chlorotoluene	50.00	49.99	100	80-121	73-128	
Dibromochloromethane	50.00	48.06	96	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	50.95	102	68-128	58-138	
1,2-Dibromoethane	50.00	47.80	96	80-120	73-127	
Dibromomethane	50.00	45.93	92	80-121	73-128	
1,2-Dichlorobenzene	50.00	49.53	99	80-120	73-127	
1,3-Dichlorobenzene	50.00	48.34	97	80-121	73-128	
1,4-Dichlorobenzene	50.00	46.74	93	80-120	73-127	
Dichlorodifluoromethane	50.00	48.96	98	25-187	0-214	
1,1-Dichloroethane	50.00	46.22	92	75-120	68-128	
1,2-Dichloroethane	50.00	45.44	91	80-123	73-130	
1,1-Dichloroethene	50.00	42.51	85	74-122	66-130	
c-1,2-Dichloroethene	50.00	46.40	93	75-123	67-131	
t-1,2-Dichloroethene	50.00	46.73	93	70-124	61-133	
1,2-Dichloropropane	50.00	47.88	96	80-120	73-127	
1,3-Dichloropropane	50.00	47.00	94	80-120	73-127	
2,2-Dichloropropane	50.00	41.04	82	49-151	32-168	
1,1-Dichloropropene	50.00	46.14	92	76-120	69-127	
c-1,3-Dichloropropene	50.00	49.89	100	80-124	73-131	
t-1,3-Dichloropropene	50.00	48.78	98	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0110
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 20 of 20

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	48.99	98	80-120	73-127	
2-Hexanone	50.00	48.08	96	57-147	42-162	
Isopropylbenzene	50.00	51.97	104	80-127	72-135	
p-Isopropyltoluene	50.00	53.01	106	80-125	72-132	
Methylene Chloride	50.00	45.81	92	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.90	100	71-125	62-134	
Naphthalene	50.00	51.54	103	54-144	39-159	
n-Propylbenzene	50.00	50.04	100	80-127	72-135	
Styrene	50.00	51.98	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	47.81	96	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	47.00	94	78-126	70-134	
Tetrachloroethene	50.00	50.69	101	57-141	43-155	
Toluene	50.00	47.68	95	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.47	101	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	48.87	98	57-153	41-169	
1,1,1-Trichloroethane	50.00	45.34	91	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	49.65	99	58-148	43-163	
1,1,2-Trichloroethane	50.00	46.43	93	80-120	73-127	
Trichloroethene	50.00	45.54	91	80-120	73-127	
Trichlorofluoromethane	50.00	48.32	97	64-136	52-148	
1,2,3-Trichloropropane	50.00	49.43	99	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	50.50	101	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.12	102	80-126	72-134	
Vinyl Acetate	50.00	33.97	68	34-172	11-195	
Vinyl Chloride	50.00	45.26	91	67-127	57-137	
p/m-Xylene	100.0	104.1	104	80-127	72-135	
o-Xylene	50.00	52.70	105	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	48.05	96	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-09-0110 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	771	ICP 7300	1
EPA 300.0	N/A	1065	IC 9	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1073	GC/MS V V	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	1068	BUR03	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 8	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 8	1
SM 5540C	N/A	1067	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0110 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0110**

DATE: 09, 01, 2016

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson / R. Crowley

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: Note: another cooler w/ seperate COC w/ MW-03 was shipped

_____ Cooler(s) with this COC shipped via FedEx

Phosphate (H_2SO_4) for MW-03-090116 Broke
Please use phosphorus bottle, and for Nitrogen NO_3+NO_2

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (Not filtered)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	MW-03-090116	09.01.16	1308	W	17 (16)	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
2	MW-15-090116	09.01.16	1436	W	17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	QCTB-090116-2	09.01.16	1308	W	2		X				X										

Relinquished by: (Signature) Given M Coffman	Received by: (Signature/Affiliation) Given to FedEx	Date: 09/01/16	Time: 1615
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 9/2/16	Time: 1010
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

FedEx

0110

FedEx Express

ORIGIN ID:IYKA (000) 000-0000
MICHAEL CRONIN
GEOSYNTEC CONSULTANTS
924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101
UNITED STATES US

SHIP DATE: 01SEP16
ACTWGT: 53.30 LB
CAD: 006994322/SSFE1704
DIMS: 23x16x16 IN

BILL THIRD PARTY

Part # 156297-435 RIT2 EXP 04/17

TO RECEIVING
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

FedEx Express

1 of 2

TRK# 0201 7839 8447 8696

MASTER

92 APVA

FRI - 02 SEP 10:30A
PRIORITY OVERNIGHT
AHS
92841
CA-US SNA

Return to Contents

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WORK ORDER NUMBER: 16-09- 0110

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosynthec

DATE: 09 / 02 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 5.7 °C (w/ CF): 5.7 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: IS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: IS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☐	☑	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: 160808B)

Aqueous: ☐ VOA ☑ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☑ 250CGBs ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☑ 1AGB ☐ 1AGBna_2 ☑ 1AGBs ☑ 1PB ☐ 1PBna ☑ 250PBnf ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1017

Reviewed by: 1053

Return to Contents

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WORK ORDER NUMBER: 16-09- 0110

SAMPLE ANOMALY REPORT

DATE: 09 / 02 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☑ Sample container(s) compromised (comment)
  - ☑ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(-1) Received 2 x 1 Liter broken. (SVOC) and (TKN)

(-2) Received 1 x 250 glass bottle broken. (phosphate, total)

(-3) Received 1 vial broken.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 1017

Reviewed by: 771

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Hoaibao Nguyen

From: Michael Cronin [MCronin@Geosyntec.com]
Sent: Friday, September 02, 2016 8:17 AM
To: Hoaibao Nguyen
Cc: Stephen Nowak; Kevin Coffman; Kenjo Agustsson
Subject: Samples coming in today

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Tina,

I'm just Following up on our conversation from yesterday. For the sample were we had our 250 ml glass H2SO4 bottle break (phosphate I think) I believe, we can use additional volume from the 2x25ml glass or 2x1L Amber H2SO4 to run the broken bottle.

please note on the COC I need to make a correction. I had left the field for phosphate blank when the bottle broke. It needs to be filled in. My photo is unreadable so I can't send a revised COC. I will need a copy of the COC sent to Kevin Coffman for correction.

Michael

Sent from my iPhone

Return to Contents

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WORK ORDER NUMBER: 16-09-0112

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/14/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0112

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Work Order Narrative

Work Order: 16-09-0112 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/02/16. They were assigned to Work Order 16-09-0112.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0112
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/02/16 10:10
		Number of Containers:	36
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-01-090116	16-09-0112-1	09/01/16 09:29	17	Aqueous
QCTB-090116	16-09-0112-2	09/01/16 09:29	2	Aqueous
MW-02-090116	16-09-0112-3	09/01/16 11:11	17	Aqueous

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0112
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/02/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-01-090116 (16-09-0112-1)						
Calcium	19.8		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.28		1.00	mg/L	EPA 200.7	N/A
Sodium	13.2		5.00	mg/L	EPA 200.7	N/A
Chloride	1.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	13		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00956		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0217		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00120		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00440		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00273		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00783		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0113		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0377		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00132		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00361		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00499		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00159		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00656		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0178		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	62.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	62.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	105		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.84		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.16		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.49		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.24		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	1.0		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0112
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/02/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-02-090116 (16-09-0112-3)						
Calcium	29.2		1.00	mg/L	EPA 200.7	N/A
Magnesium	2.61		1.00	mg/L	EPA 200.7	N/A
Sodium	9.81		5.00	mg/L	EPA 200.7	N/A
Chloride	2.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	23		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00555		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0378		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00119		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00164		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00159		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00167		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00846		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00722		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0389		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00122		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00166		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00161		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00443		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0107		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	76.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	76.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	125		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.98		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.25		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.76		0.31	mg/L	SM 4500 P B/E	N/A
Total Nitrogen	0.98		0.50	mg/L	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-F**	**09/01/16 09:29**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 19:59**	**160902L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	1.9	1.0	1.00	
Sulfate	13	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-F**	**09/01/16 11:11**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 20:18**	**160902L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	2.7	1.0	1.00	
Sulfate	23	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6917**	**N/A**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 10:51**	**160902L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-J**	**09/01/16 09:29**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 18:18**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	19.8	1.00	10.0	
Magnesium	2.28	1.00	10.0	
Sodium	13.2	5.00	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-J**	**09/01/16 11:11**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 18:19**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	29.2	1.00	10.0	
Magnesium	2.61	1.00	10.0	
Sodium	9.81	5.00	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6678**	**N/A**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 15:57**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-J**	**09/01/16 09:29**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:58**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0113	0.00100	1.00	
Barium	0.0377	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00132	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00361	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00499	0.00100	1.00	
Nickel	0.00159	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00656	0.00100	1.00	
Zinc	0.0178	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-J**	**09/01/16 11:11**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 21:01**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00722	0.00100	1.00	
Barium	0.0389	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00122	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00166	0.00100	1.00	
Nickel	0.00161	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00443	0.00100	1.00	
Zinc	0.0107	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5315**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:20**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-K**	**09/01/16 09:29**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:53**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00956	0.00100	1.00	
Barium	0.0217	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00120	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00440	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00273	0.00100	1.00	
Zinc	0.00783	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-K**	**09/01/16 11:11**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:55**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00555	0.00100	1.00	
Barium	0.0378	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00119	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00164	0.00100	1.00	
Nickel	0.00159	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00167	0.00100	1.00	
Zinc	0.00846	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1206**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:20**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-J**	**09/01/16 09:29**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 12:51**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-J**	**09/01/16 11:11**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 13:05**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7967**	**N/A**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:27**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-K**	**09/01/16 09:29**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 13:07**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-K**	**09/01/16 11:11**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/08/16 13:09**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-818**	**N/A**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:27**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-N**	**09/01/16 09:29**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/08/16 13:44**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.4	1.00	
Acenaphthylene	ND	9.4	1.00	
Aniline	ND	9.4	1.00	
Anthracene	ND	9.4	1.00	
Azobenzene	ND	9.4	1.00	
Benzidine	ND	47	1.00	
Benzo (a) Anthracene	ND	9.4	1.00	
Benzo (a) Pyrene	ND	9.4	1.00	
Benzo (b) Fluoranthene	ND	9.4	1.00	
Benzo (g,h,i) Perylene	ND	9.4	1.00	
Benzo (k) Fluoranthene	ND	9.4	1.00	
Benzoic Acid	ND	47	1.00	
Benzyl Alcohol	ND	9.4	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.4	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.4	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.4	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.4	1.00	
Butyl Benzyl Phthalate	ND	9.4	1.00	
4-Chloro-3-Methylphenol	ND	9.4	1.00	
4-Chloroaniline	ND	9.4	1.00	
2-Chloronaphthalene	ND	9.4	1.00	
2-Chlorophenol	ND	9.4	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.4	1.00	
Chrysene	ND	9.4	1.00	
2,6-Dichlorophenol	ND	9.4	1.00	
Di-n-Butyl Phthalate	ND	9.4	1.00	
Di-n-Octyl Phthalate	ND	9.4	1.00	
Dibenz (a,h) Anthracene	ND	9.4	1.00	
Dibenzofuran	ND	9.4	1.00	
1,2-Dichlorobenzene	ND	9.4	1.00	
1,3-Dichlorobenzene	ND	9.4	1.00	
1,4-Dichlorobenzene	ND	9.4	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.4	1.00	
Dimethyl Phthalate	ND	9.4	1.00	
2,4-Dimethylphenol	ND	9.4	1.00	
4,6-Dinitro-2-Methylphenol	ND	47	1.00	
2,4-Dinitrophenol	ND	47	1.00	
2,4-Dinitrotoluene	ND	9.4	1.00	
2,6-Dinitrotoluene	ND	9.4	1.00	
Fluoranthene	ND	9.4	1.00	
Fluorene	ND	9.4	1.00	
Hexachloro-1,3-Butadiene	ND	9.4	1.00	
Hexachlorobenzene	ND	9.4	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.4	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.4	1.00	
Isophorone	ND	9.4	1.00	
2-Methylnaphthalene	ND	9.4	1.00	
1-Methylnaphthalene	ND	9.4	1.00	
2-Methylphenol	ND	9.4	1.00	
3/4-Methylphenol	ND	9.4	1.00	
N-Nitroso-di-n-propylamine	ND	9.4	1.00	
N-Nitrosodimethylamine	ND	9.4	1.00	
N-Nitrosodiphenylamine	ND	9.4	1.00	
Naphthalene	ND	9.4	1.00	
4-Nitroaniline	ND	9.4	1.00	
3-Nitroaniline	ND	9.4	1.00	
2-Nitroaniline	ND	9.4	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.4	1.00	
2-Nitrophenol	ND	9.4	1.00	
Pentachlorophenol	ND	9.4	1.00	
Phenanthrene	ND	9.4	1.00	
Phenol	ND	9.4	1.00	
Pyrene	ND	9.4	1.00	
Pyridine	ND	9.4	1.00	
1,2,4-Trichlorobenzene	ND	9.4	1.00	
2,4,6-Trichlorophenol	ND	9.4	1.00	
2,4,5-Trichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	77	20-110	
Nitrobenzene-d5	70	40-110	
p-Terphenyl-d14	76	50-135	
Phenol-d6	73	10-115	
2,4,6-Tribromophenol	69	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0794			Page 4 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-N**	**09/01/16 11:11**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/08/16 14:03**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.4	1.00	
Acenaphthylene	ND	9.4	1.00	
Aniline	ND	9.4	1.00	
Anthracene	ND	9.4	1.00	
Azobenzene	ND	9.4	1.00	
Benzidine	ND	47	1.00	
Benzo (a) Anthracene	ND	9.4	1.00	
Benzo (a) Pyrene	ND	9.4	1.00	
Benzo (b) Fluoranthene	ND	9.4	1.00	
Benzo (g,h,i) Perylene	ND	9.4	1.00	
Benzo (k) Fluoranthene	ND	9.4	1.00	
Benzoic Acid	ND	47	1.00	
Benzyl Alcohol	ND	9.4	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.4	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.4	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.4	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.4	1.00	
Butyl Benzyl Phthalate	ND	9.4	1.00	
4-Chloro-3-Methylphenol	ND	9.4	1.00	
4-Chloroaniline	ND	9.4	1.00	
2-Chloronaphthalene	ND	9.4	1.00	
2-Chlorophenol	ND	9.4	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.4	1.00	
Chrysene	ND	9.4	1.00	
2,6-Dichlorophenol	ND	9.4	1.00	
Di-n-Butyl Phthalate	ND	9.4	1.00	
Di-n-Octyl Phthalate	ND	9.4	1.00	
Dibenz (a,h) Anthracene	ND	9.4	1.00	
Dibenzofuran	ND	9.4	1.00	
1,2-Dichlorobenzene	ND	9.4	1.00	
1,3-Dichlorobenzene	ND	9.4	1.00	
1,4-Dichlorobenzene	ND	9.4	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.4	1.00	
Dimethyl Phthalate	ND	9.4	1.00	
2,4-Dimethylphenol	ND	9.4	1.00	
4,6-Dinitro-2-Methylphenol	ND	47	1.00	
2,4-Dinitrophenol	ND	47	1.00	
2,4-Dinitrotoluene	ND	9.4	1.00	
2,6-Dinitrotoluene	ND	9.4	1.00	
Fluoranthene	ND	9.4	1.00	
Fluorene	ND	9.4	1.00	
Hexachloro-1,3-Butadiene	ND	9.4	1.00	
Hexachlorobenzene	ND	9.4	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.4	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.4	1.00	
Isophorone	ND	9.4	1.00	
2-Methylnaphthalene	ND	9.4	1.00	
1-Methylnaphthalene	ND	9.4	1.00	
2-Methylphenol	ND	9.4	1.00	
3/4-Methylphenol	ND	9.4	1.00	
N-Nitroso-di-n-propylamine	ND	9.4	1.00	
N-Nitrosodimethylamine	ND	9.4	1.00	
N-Nitrosodiphenylamine	ND	9.4	1.00	
Naphthalene	ND	9.4	1.00	
4-Nitroaniline	ND	9.4	1.00	
3-Nitroaniline	ND	9.4	1.00	
2-Nitroaniline	ND	9.4	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.4	1.00	
2-Nitrophenol	ND	9.4	1.00	
Pentachlorophenol	ND	9.4	1.00	
Phenanthrene	ND	9.4	1.00	
Phenol	ND	9.4	1.00	
Pyrene	ND	9.4	1.00	
Pyridine	ND	9.4	1.00	
1,2,4-Trichlorobenzene	ND	9.4	1.00	
2,4,6-Trichlorophenol	ND	9.4	1.00	
2,4,5-Trichlorophenol	ND	9.4	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	63	50-110	
2-Fluorophenol	72	20-110	
Nitrobenzene-d5	67	40-110	
p-Terphenyl-d14	72	50-135	
Phenol-d6	69	10-115	
2,4,6-Tribromophenol	65	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-62**	**N/A**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 10:32**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 8 of 9

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	50-110	
2-Fluorophenol	84	20-110	
Nitrobenzene-d5	76	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	73	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-090116	**16-09-0112-1-A**	**09/01/16 09:29**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 19:29**	**160902L035**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-090116	**16-09-0112-2-A**	**09/01/16 09:29**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 22:11**	**160902L035**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-090116	**16-09-0112-3-A**	**09/01/16 11:11**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 22:43**	**160902L035**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2937**	**N/A**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 17:48**	**160902L035**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-01-090116	**16-09-0112-1**	**09/01/16 09:29**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	62.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	62.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	105	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	0.84	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.16	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	0.49	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.24	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	1.0	0.50	1.00		mg/L	N/A	09/12/16	Total Nitrogen by Calc

MW-02-090116	**16-09-0112-3**	**09/01/16 11:11**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	76.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	76.0	1.00	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	125	1.00	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	0.98	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	0.25	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	0.76	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C
Total Nitrogen	0.98	0.50	1.00		mg/L	N/A	09/12/16	Total Nitrogen by Calc

Method Blank						**N/A**		**Aqueous**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/02/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/03/16	09/03/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/02/16	09/02/16	SM 5540C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 300.0
Project: CG Roxane / SB0794		Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0110-1	**Sample**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 16:38**	**160902S01**
16-09-0110-1	**Matrix Spike**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 17:16**	**160902S01**
16-09-0110-1	**Matrix Spike Duplicate**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 17:35**	**160902S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	4.634	50.00	43.26	77	44.28	79	80-120	2	0-20	3
Sulfate	13.58	50.00	54.87	83	55.67	84	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 4500 P B/E
Project: CG Roxane / SB0794		Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-01-090116	**Sample**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPS1**
MW-01-090116	**Matrix Spike**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPS1**
MW-01-090116	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1590	0.4000	0.4910	83	0.4853	82	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 3 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-01-090116	**Sample**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4S1**
MW-01-090116	**Matrix Spike**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4S1**
MW-01-090116	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4864	1.220	1.502	83	1.485	82	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794		Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0110-2	**Sample**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3S**
16-09-0110-2	**Matrix Spike**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3S**
16-09-0110-2	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3S**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.4533	91	0.4519	90	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-02-090116	**Sample**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURS1**
MW-02-090116	**Matrix Spike**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURS1**
MW-02-090116	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9568	96	0.9365	94	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0040-7	**Sample**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:05**	**160907SA4**
16-09-0040-7	**Matrix Spike**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:02**	**160907SA4**
16-09-0040-7	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:03**	**160907SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	41.77	0.5000	42.02	4X	40.26	4X	80-120	4X	0-20	Q
Magnesium	12.12	0.5000	12.73	4X	12.25	4X	80-120	4X	0-20	Q
Sodium	66.32	5.000	71.65	4X	68.33	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0324-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:30**	**160907SA4**
16-09-0324-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:25**	**160907SA4**
16-09-0324-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:27**	**160907SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1044	104	0.1081	108	85-133	4	0-11	
Arsenic	0.001808	0.1000	0.09957	98	0.1026	101	73-127	3	0-11	
Barium	0.3280	0.1000	0.4126	85	0.4352	107	74-128	5	0-10	
Beryllium	ND	0.1000	0.08967	90	0.09387	94	56-122	5	0-11	
Cadmium	ND	0.1000	0.09514	95	0.09938	99	84-114	4	0-8	
Chromium	ND	0.1000	0.09666	97	0.1010	101	73-133	4	0-11	
Cobalt	ND	0.1000	0.08747	87	0.09174	92	79-121	5	0-10	
Copper	0.1914	0.1000	0.2678	76	0.2724	81	72-108	2	0-10	
Lead	0.001455	0.1000	0.1086	107	0.1131	112	79-121	4	0-10	
Molybdenum	0.003077	0.1000	0.1141	111	0.1178	115	83-137	3	0-10	
Nickel	0.006382	0.1000	0.09129	85	0.09450	88	68-122	3	0-10	
Selenium	ND	0.1000	0.09568	96	0.09916	99	59-125	4	0-12	
Silver	ND	0.05000	0.04476	90	0.05503	110	68-128	21	0-14	4
Thallium	ND	0.1000	0.1046	105	0.1084	108	73-121	4	0-11	
Vanadium	0.001499	0.1000	0.09563	94	0.09900	97	77-137	3	0-15	
Zinc	0.1771	0.1000	0.2490	72	0.2383	61	43-145	4	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 7470A Filt.
	Method:	EPA 7470A
Project: CG Roxane / SB0794		Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0181-6	**Sample**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:49**	**160907SA3**
16-09-0181-6	**Matrix Spike**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:36**	**160907SA3**
16-09-0181-6	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:47**	**160907SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009167	92	0.009390	94	55-133	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 9 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-01-090116	**Sample**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 19:29**	**160902S014**
MW-01-090116	**Matrix Spike**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 20:01**	**160902S014**
MW-01-090116	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 20:34**	**160902S014**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	34.68	69	34.21	68	22-178	1	0-26	
Benzene	ND	50.00	42.33	85	42.25	84	70-130	0	0-20	
Bromobenzene	ND	50.00	43.42	87	43.84	88	70-130	1	0-20	
Bromochloromethane	ND	50.00	44.51	89	44.38	89	70-132	0	0-20	
Bromodichloromethane	ND	50.00	46.46	93	45.97	92	69-135	1	0-20	
Bromoform	ND	50.00	47.80	96	47.40	95	70-133	1	0-20	
Bromomethane	ND	50.00	48.40	97	48.81	98	11-167	1	0-32	
2-Butanone	ND	50.00	37.51	75	38.83	78	39-159	3	0-21	
n-Butylbenzene	ND	50.00	42.86	86	43.38	87	62-152	1	0-28	
sec-Butylbenzene	ND	50.00	43.94	88	43.18	86	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	46.42	93	45.33	91	70-140	2	0-20	
Carbon Disulfide	ND	50.00	43.20	86	41.54	83	54-138	4	0-23	
Carbon Tetrachloride	ND	50.00	52.19	104	50.75	101	63-153	3	0-22	
Chlorobenzene	ND	50.00	42.78	86	43.15	86	70-130	1	0-20	
Chloroethane	ND	50.00	42.63	85	43.83	88	44-140	3	0-32	
Chloroform	ND	50.00	44.19	88	43.16	86	68-134	2	0-20	
Chloromethane	ND	50.00	46.85	94	47.43	95	20-158	1	0-40	
2-Chlorotoluene	ND	50.00	43.52	87	44.29	89	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	43.29	87	42.61	85	70-130	2	0-20	
Dibromochloromethane	ND	50.00	46.94	94	47.55	95	70-133	1	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	43.89	88	43.66	87	67-133	1	0-20	
1,2-Dibromoethane	ND	50.00	43.91	88	44.25	89	70-130	1	0-20	
Dibromomethane	ND	50.00	44.35	89	44.55	89	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	42.66	85	42.52	85	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	42.79	86	41.99	84	70-130	2	0-20	
1,4-Dichlorobenzene	ND	50.00	41.36	83	41.10	82	70-130	1	0-20	
Dichlorodifluoromethane	ND	50.00	49.40	99	45.59	91	10-190	8	0-40	
1,1-Dichloroethane	ND	50.00	44.48	89	44.38	89	64-130	0	0-20	
1,2-Dichloroethane	ND	50.00	43.86	88	43.03	86	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	40.07	80	33.59	67	51-153	18	0-21	
c-1,2-Dichloroethene	ND	50.00	44.47	89	43.78	88	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	44.58	89	43.51	87	68-134	2	0-20	
1,2-Dichloropropane	ND	50.00	44.01	88	43.74	87	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	43.10	86	43.54	87	70-130	1	0-20	
2,2-Dichloropropane	ND	50.00	50.43	101	47.92	96	37-169	5	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 10 of 10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	44.25	88	43.20	86	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	47.51	95	47.39	95	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	48.55	97	48.91	98	58-136	1	0-20	
Ethylbenzene	ND	50.00	44.18	88	43.94	88	70-134	1	0-24	
2-Hexanone	ND	50.00	39.11	78	42.09	84	59-149	7	0-20	
Isopropylbenzene	ND	50.00	44.93	90	45.44	91	70-141	1	0-27	
p-Isopropyltoluene	ND	50.00	43.62	87	42.73	85	65-143	2	0-39	
Methylene Chloride	ND	50.00	43.69	87	42.56	85	69-130	3	0-21	
4-Methyl-2-Pentanone	ND	50.00	41.39	83	42.40	85	67-139	2	0-20	
Naphthalene	ND	50.00	42.58	85	43.83	88	61-139	3	0-20	
n-Propylbenzene	ND	50.00	44.20	88	45.01	90	70-140	2	0-24	
Styrene	ND	50.00	45.24	90	44.41	89	18-174	2	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	47.65	95	48.28	97	70-135	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	43.78	88	43.48	87	70-137	1	0-20	
Tetrachloroethene	ND	50.00	31.61	63	31.71	63	33-147	0	0-30	
Toluene	ND	50.00	43.75	87	43.73	87	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	41.59	83	41.76	84	64-142	0	0-22	
1,2,4-Trichlorobenzene	ND	50.00	41.88	84	41.96	84	60-144	0	0-24	
1,1,1-Trichloroethane	ND	50.00	44.00	88	42.97	86	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	44.82	90	35.38	71	21-190	24	0-40	
1,1,2-Trichloroethane	ND	50.00	42.70	85	43.68	87	70-130	2	0-20	
Trichloroethene	ND	50.00	43.21	86	42.98	86	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	48.13	96	45.38	91	54-162	6	0-30	
1,2,3-Trichloropropane	ND	50.00	41.52	83	45.13	90	67-130	8	0-20	
1,2,4-Trimethylbenzene	ND	50.00	43.09	86	41.79	84	70-133	3	0-20	
1,3,5-Trimethylbenzene	ND	50.00	43.55	87	43.44	87	70-139	0	0-20	
Vinyl Acetate	ND	50.00	13.68	27	12.95	26	10-190	5	0-40	
Vinyl Chloride	ND	50.00	53.71	107	52.43	105	59-137	2	0-20	
p/m-Xylene	ND	100.0	87.00	87	86.80	87	67-145	0	0-28	
o-Xylene	ND	50.00	44.11	88	44.31	89	70-142	0	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.17	86	42.46	85	69-130	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-09-0324-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/08/16 20:30**	**160907SA4**
16-09-0324-1	**PDS**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/12/16 17:39**	**160907SA4**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1009	101	75-125	
Arsenic	0.001808	0.1000	0.09358	92	75-125	
Barium	0.3280	0.1000	0.4118	84	75-125	
Beryllium	ND	0.1000	0.09672	97	75-125	
Cadmium	ND	0.1000	0.09175	92	75-125	
Chromium	ND	0.1000	0.08458	85	75-125	
Cobalt	ND	0.1000	0.08526	85	75-125	
Copper	0.1914	0.1000	0.2549	63	75-125	5
Lead	0.001455	0.1000	0.1080	107	75-125	
Molybdenum	0.003077	0.1000	0.1144	111	75-125	
Nickel	0.006382	0.1000	0.08935	83	75-125	
Selenium	ND	0.1000	0.09117	91	75-125	
Silver	ND	0.05000	0.04668	93	75-125	
Thallium	ND	0.1000	0.1030	103	75-125	
Vanadium	0.001499	0.1000	0.09431	93	75-125	
Zinc	0.1771	0.1000	0.2517	75	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	**Sample**	**Aqueous**	**BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKD1**
16-09-0082-4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	465.0	461.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0082-4	**Sample**	**Aqueous**	**BUR03**	**N/A**	**09/02/16 21:40**	**G0902HCOD1**
16-09-0082-4	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	465.0	461.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0109-3	**Sample**	**Aqueous**	**N/A**	**09/07/16 00:00**	**09/07/16 19:00**	**G0907TDSD1**
16-09-0109-3	**Sample Duplicate**	**Aqueous**	**N/A**	**09/07/16 00:00**	**09/07/16 19:00**	**G0907TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1670	1685	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane / SB0794			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0086-3	**Sample**	**Aqueous**	**BUR05**	**09/09/16 00:00**	**09/09/16 16:34**	**G0909TKND1**
16-09-0086-3	**Sample Duplicate**	**Aqueous**	**BUR05**	**09/09/16 00:00**	**09/09/16 16:34**	**G0909TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	74.90	73.92	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-6917	**LCS**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 11:32**	**160902L01**
099-12-906-6917	**LCSD**	**Aqueous**	**IC 9**	**N/A**	**09/02/16 11:51**	**160902L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	48.05	96	48.20	96	90-110	0	0-15	
Sulfate	50.00	50.12	100	50.23	100	90-110	0	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-1055	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKB1**
099-15-859-1055	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/02/16 21:40**	**G0902ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	101.0	101	99.00	99	80-120	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 3 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5233	**LCS**	**Aqueous**	**N/A**	**09/07/16**	**09/07/16 19:00**	**G0907TDSL1**
099-12-180-5233	**LCSD**	**Aqueous**	**N/A**	**09/07/16**	**09/07/16 19:00**	**G0907TDSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	90.00	90	95.00	95	80-120	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 4 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2787	**LCS**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPL1**
099-05-098-2787	**LCSD**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4244	106	0.4256	106	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 5 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-202	**LCS**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4L1**
099-14-276-202	**LCSD**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 11:15**	**G0903PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.299	106	1.302	107	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NH3 B/C
Project: CG Roxane / SB0794			Page 6 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2429	**LCS**	**Aqueous**	**BUR05**	**09/07/16**	**09/07/16 18:00**	**G0907NH3L1**
099-12-814-2429	**LCSD**	**Aqueous**	**BUR05**	**09/07/16**	**09/07/16 18:00**	**G0907NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.284	86	4.368	87	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 7 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-439	**LCS**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3L**
099-14-282-439	**LCSD**	**Aqueous**	**UV 8**	**09/02/16**	**09/02/16 17:09**	**FG0902NO3L**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5203	104	0.5218	104	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 8 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3131	**LCS**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURL1**
099-05-093-3131	**LCSD**	**Aqueous**	**UV 9**	**09/02/16**	**09/02/16 17:10**	**G0902SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9632	96	0.9546	95	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 9 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6678	**LCS**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 13:59**	**160907LA4A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.4804	96	85-115	
Magnesium	0.5000	0.5046	101	85-115	
Sodium	5.000	5.686	114	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 10 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5315	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:22**	**160907LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1019	102	80-120	73-127	
Arsenic	0.1000	0.1017	102	80-120	73-127	
Barium	0.1000	0.09975	100	80-120	73-127	
Beryllium	0.1000	0.1048	105	80-120	73-127	
Cadmium	0.1000	0.1008	101	80-120	73-127	
Chromium	0.1000	0.1061	106	80-120	73-127	
Cobalt	0.1000	0.1008	101	80-120	73-127	
Copper	0.1000	0.1050	105	80-120	73-127	
Lead	0.1000	0.09917	99	80-120	73-127	
Molybdenum	0.1000	0.09932	99	80-120	73-127	
Nickel	0.1000	0.1030	103	80-120	73-127	
Selenium	0.1000	0.1010	101	80-120	73-127	
Silver	0.05000	0.05105	102	80-120	73-127	
Thallium	0.1000	0.09542	95	80-120	73-127	
Vanadium	0.1000	0.1030	103	80-120	73-127	
Zinc	0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 11 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1206	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:22**	**160907LA4F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1019	102	80-120	73-127	
Arsenic	0.1000	0.1017	102	80-120	73-127	
Barium	0.1000	0.09975	100	80-120	73-127	
Beryllium	0.1000	0.1048	105	80-120	73-127	
Cadmium	0.1000	0.1008	101	80-120	73-127	
Chromium	0.1000	0.1061	106	80-120	73-127	
Cobalt	0.1000	0.1008	101	80-120	73-127	
Copper	0.1000	0.1050	105	80-120	73-127	
Lead	0.1000	0.09917	99	80-120	73-127	
Molybdenum	0.1000	0.09932	99	80-120	73-127	
Nickel	0.1000	0.1030	103	80-120	73-127	
Selenium	0.1000	0.1010	101	80-120	73-127	
Silver	0.05000	0.05105	102	80-120	73-127	
Thallium	0.1000	0.09542	95	80-120	73-127	
Vanadium	0.1000	0.1030	103	80-120	73-127	
Zinc	0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 12 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7967	**LCS**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:32**	**160907LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 13 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-818	**LCS**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:32**	**160907LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/02/16
Work Order: 16-09-0112
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-62	**LCS**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 10:51**	**160903L05**
099-02-008-62	**LCSD**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 11:13**	**160903L05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	80.36	80	82.26	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	79.89	80	81.23	81	50-105	41-114	2	0-20	
Aniline	100.0	80.76	81	83.65	84	50-130	37-143	4	0-20	
Anthracene	100.0	80.00	80	81.07	81	55-110	46-119	1	0-20	
Azobenzene	100.0	81.13	81	83.15	83	50-130	37-143	2	0-20	
Benzidine	100.0	54.22	54	52.46	52	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	77.93	78	79.71	80	55-110	46-119	2	0-20	
Benzo (a) Pyrene	100.0	80.56	81	81.17	81	55-110	46-119	1	0-20	
Benzo (b) Fluoranthene	100.0	80.77	81	79.23	79	45-120	32-132	2	0-20	
Benzo (g,h,i) Perylene	100.0	91.10	91	93.80	94	40-125	26-139	3	0-20	
Benzo (k) Fluoranthene	100.0	77.57	78	81.87	82	45-125	32-138	5	0-20	
Benzoic Acid	100.0	56.28	56	56.92	57	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	76.93	77	77.22	77	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.74	80	82.26	82	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.66	78	81.21	81	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	78.87	79	81.58	82	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.91	85	87.67	88	40-125	26-139	3	0-20	
4-Bromophenyl-Phenyl Ether	100.0	80.70	81	82.29	82	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	84.53	85	87.79	88	45-115	33-127	4	0-20	
4-Chloro-3-Methylphenol	100.0	77.76	78	79.71	80	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	87.81	88	88.92	89	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	78.53	79	81.67	82	50-105	41-114	4	0-20	
2-Chlorophenol	100.0	82.87	83	84.80	85	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	77.23	77	78.45	78	50-110	40-120	2	0-20	
Chrysene	100.0	79.07	79	81.05	81	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	83.67	84	83.84	84	42-120	29-133	0	0-21	
Di-n-Butyl Phthalate	100.0	79.28	79	81.32	81	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	83.92	84	85.56	86	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	82.25	82	85.05	85	40-125	26-139	3	0-20	
Dibenzofuran	100.0	81.50	81	82.22	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	78.53	79	80.28	80	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	79.70	80	81.27	81	30-100	18-112	2	0-20	
1,4-Dichlorobenzene	100.0	78.88	79	80.07	80	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	92.71	93	92.52	93	20-110	5-125	0	0-20	
2,4-Dichlorophenol	100.0	82.54	83	84.39	84	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	76.76	77	77.88	78	40-120	27-133	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 15 of 18

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	77.57	78	79.03	79	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	85.54	86	86.63	87	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	74.99	75	77.37	77	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	71.33	71	74.71	75	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	78.12	78	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	79.38	79	81.89	82	50-115	39-126	3	0-20	
Fluoranthene	100.0	77.85	78	77.62	78	55-115	45-125	0	0-20	
Fluorene	100.0	79.31	79	80.21	80	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	80.08	80	81.20	81	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	78.62	79	80.77	81	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	74.87	75	80.02	80	50-130	37-143	7	0-20	
Hexachloroethane	100.0	80.87	81	81.82	82	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.82	84	87.11	87	45-125	32-138	4	0-20	
Isophorone	100.0	76.58	77	78.78	79	50-110	40-120	3	0-20	
2-Methylnaphthalene	100.0	84.80	85	86.08	86	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	74.31	74	75.83	76	45-105	35-115	2	0-20	
2-Methylphenol	100.0	80.95	81	84.29	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	166.2	83	169.1	85	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	74.82	75	76.66	77	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	74.91	75	78.23	78	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	91.22	91	95.08	95	50-110	40-120	4	0-20	
Naphthalene	100.0	79.47	79	81.21	81	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	71.65	72	72.63	73	35-120	21-134	1	0-20	
3-Nitroaniline	100.0	63.93	64	64.31	64	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	79.91	80	82.30	82	50-115	39-126	3	0-20	
Nitrobenzene	100.0	81.04	81	83.76	84	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	83.97	84	83.44	83	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	77.04	77	79.47	79	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	66.08	66	67.50	68	40-115	28-128	2	0-40	
Phenanthrene	100.0	82.10	82	83.87	84	50-115	39-126	2	0-20	
Phenol	100.0	83.37	83	85.09	85	10-115	0-132	2	0-23	
Pyrene	100.0	82.91	83	85.15	85	50-130	37-143	3	0-20	
Pyridine	100.0	74.55	75	76.21	76	52-115	42-126	2	0-20	
1,2,4-Trichlorobenzene	100.0	80.11	80	81.45	81	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	77.66	78	80.65	81	50-115	39-126	4	0-20	
2,4,5-Trichlorophenol	100.0	77.96	78	81.60	82	50-110	40-120	5	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 18

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/02/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0112
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 17 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2937	**LCS**	**Aqueous**	**GC/MS RR**	**09/02/16**	**09/02/16 15:39**	**160902L035**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	38.31	77	12-150	0-173	
Benzene	50.00	48.26	97	80-120	73-127	
Bromobenzene	50.00	50.04	100	80-120	73-127	
Bromochloromethane	50.00	51.18	102	80-122	73-129	
Bromodichloromethane	50.00	51.84	104	80-123	73-130	
Bromoform	50.00	54.38	109	74-134	64-144	
Bromomethane	50.00	49.52	99	22-160	0-183	
2-Butanone	50.00	46.24	92	44-164	24-184	
n-Butylbenzene	50.00	49.98	100	80-132	71-141	
sec-Butylbenzene	50.00	50.96	102	80-129	72-137	
tert-Butylbenzene	50.00	53.63	107	80-130	72-138	
Carbon Disulfide	50.00	48.35	97	60-126	49-137	
Carbon Tetrachloride	50.00	59.19	118	64-148	50-162	
Chlorobenzene	50.00	49.20	98	80-120	73-127	
Chloroethane	50.00	47.13	94	63-123	53-133	
Chloroform	50.00	50.20	100	79-121	72-128	
Chloromethane	50.00	50.27	101	43-133	28-148	
2-Chlorotoluene	50.00	50.02	100	80-130	72-138	
4-Chlorotoluene	50.00	50.32	101	80-121	73-128	
Dibromochloromethane	50.00	54.26	109	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	50.10	100	68-128	58-138	
1,2-Dibromoethane	50.00	50.39	101	80-120	73-127	
Dibromomethane	50.00	49.45	99	80-121	73-128	
1,2-Dichlorobenzene	50.00	49.79	100	80-120	73-127	
1,3-Dichlorobenzene	50.00	49.27	99	80-121	73-128	
1,4-Dichlorobenzene	50.00	47.70	95	80-120	73-127	
Dichlorodifluoromethane	50.00	47.38	95	25-187	0-214	
1,1-Dichloroethane	50.00	49.55	99	75-120	68-128	
1,2-Dichloroethane	50.00	48.80	98	80-123	73-130	
1,1-Dichloroethene	50.00	41.96	84	74-122	66-130	
c-1,2-Dichloroethene	50.00	50.11	100	75-123	67-131	
t-1,2-Dichloroethene	50.00	49.79	100	70-124	61-133	
1,2-Dichloropropane	50.00	50.21	100	80-120	73-127	
1,3-Dichloropropane	50.00	49.80	100	80-120	73-127	
2,2-Dichloropropane	50.00	60.72	121	49-151	32-168	
1,1-Dichloropropene	50.00	50.60	101	76-120	69-127	
c-1,3-Dichloropropene	50.00	54.97	110	80-124	73-131	
t-1,3-Dichloropropene	50.00	57.79	116	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	09/02/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0112
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 18 of 18

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.36	101	80-120	73-127	
2-Hexanone	50.00	46.63	93	57-147	42-162	
Isopropylbenzene	50.00	52.18	104	80-127	72-135	
p-Isopropyltoluene	50.00	50.68	101	80-125	72-132	
Methylene Chloride	50.00	47.68	95	74-122	66-130	
4-Methyl-2-Pentanone	50.00	48.48	97	71-125	62-134	
Naphthalene	50.00	48.52	97	54-144	39-159	
n-Propylbenzene	50.00	51.74	103	80-127	72-135	
Styrene	50.00	52.30	105	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	54.79	110	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.52	99	78-126	70-134	
Tetrachloroethene	50.00	35.98	72	57-141	43-155	
Toluene	50.00	50.10	100	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	47.70	95	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	48.42	97	57-153	41-169	
1,1,1-Trichloroethane	50.00	50.59	101	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.10	94	58-148	43-163	
1,1,2-Trichloroethane	50.00	49.06	98	80-120	73-127	
Trichloroethene	50.00	48.83	98	80-120	73-127	
Trichlorofluoromethane	50.00	53.39	107	64-136	52-148	
1,2,3-Trichloropropane	50.00	50.74	101	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	49.75	99	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.79	104	80-126	72-134	
Vinyl Acetate	50.00	17.80	36	34-172	11-195	
Vinyl Chloride	50.00	53.76	108	67-127	57-137	
p/m-Xylene	100.0	100.3	100	80-127	72-135	
o-Xylene	50.00	50.97	102	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	50.43	101	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-09-0112 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	771	ICP 7300	1
EPA 300.0	N/A	1065	IC 9	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 05	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1023	GC/MS RR	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	1068	BUR03	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 8	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 8	1
SM 5540C	N/A	1067	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0112 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY
16-09-0112

DATE: 09/01/2016
PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**
ADDRESS: 924 Anacapa St. Suite 4A
CITY: Santa Barbara STATE: CA ZIP: 93101
TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane
P.O. NO.: SB0794
PROJECT CONTACT: Kevin Coffman
SAMPLER(S): (PRINT) M. Cronin, Kenjo Agustsson

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:
1 Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (lab filtered)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	MW-01-090116	09-01-16	0929	W	17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	QCTB-090116	09-01-16	0929	W	2		X				X										
3	MW-02-090116	09-01-16	1111	W	17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature) Michael Cronin	Received by: (Signature/Affiliation) Given to FedEx	Date: 09-01-16	Time: 1200
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 9/2/16	Time: 1010
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

0112

ORIGIN ID:IYKA (000) 000-0000
MICHAEL CRONIN
GEOSYNTEC CONSULTANTS
924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101
UNITED STATES US

SHIP DATE: 01SEP16
ACTWGT: 61.40 LB
CAD: 006994322/SSFE1704
DIMS: 26x14x14 IN

BILL THIRD PARTY

Part # 158297-435 RIT2 EXP 04/17

TO **RECEIVING**
CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(714) 895-5494 REF:
INV:
PO: DEPT:

FedEx Express

2 of 2
MPS# 0263 7839 8447 8700
Mstr# 7839 8447 8696

0201

92 APVA

FRI - 02 SEP 10:30A
PRIORITY OVERNIGHT
AHS
92841
CA-US SNA

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Return to Contents

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WORK ORDER NUMBER: 16-09- 0112

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosynthec

DATE: 09/02/2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 5.8 °C (w/ CF): 5.8 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: IS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: IS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container (Trip Blank)	☐	☑	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: 1608088)

Aqueous: ☐ VOA ☑ VOAh (5) ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☑ 250CGBs (3) ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☑ 500PB ☑ 1AGB ☐ 1AGBna_2 ☑ 1AGBs (2) ☑ 1PB ☐ 1PBna ☑ 250PB ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1017

Reviewed by: SM

Return to Contents

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WORK ORDER NUMBER: 16-09- 0112

SAMPLE ANOMALY REPORT

DATE: 09 / 02 / 2016

SAMPLES, CONTAINERS, AND LABELS:

	Comments
☐ Sample(s) NOT RECEIVED but listed on COC	
☐ Sample(s) received but NOT LISTED on COC	
☐ Holding time expired (list client or ECI sample ID and analysis)	
☐ Insufficient sample amount for requested analysis (list analysis)	
☐ Improper container(s) used (list analysis)	
☑ Improper preservative used (list analysis)	
☐ No preservative noted on COC or label (list analysis and notify lab)	(-1) (-3) Received lab filter preserved
☐ Sample container(s) not labeled	
☐ Client sample label(s) illegible (list container type and analysis)	
☐ Client sample label(s) do not match COC (comment)	
☐ Project information	
☐ Client sample ID	
☐ Sampling date and/or time	
☐ Number of container(s)	
☐ Requested analysis	
☐ Sample container(s) compromised (comment)	
☐ Broken	
☐ Water present in sample container	
☐ Air sample container(s) compromised (comment)	
☐ Flat	
☐ Very low in volume	
☐ Leaking (not transferred; duplicate bag submitted)	
☐ Leaking (transferred into ECI Tedlar™ bags*)	
☐ Leaking (transferred into client's Tedlar™ bags*)	

* Transferred at client's request.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments:

Reported by: 1017

Reviewed by: BR

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0112**

DATE: 09/01/2016

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) M. Cronin, Kenjo Agustsson

REQUESTED ANALYSES

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:

1 Cooler(s) with this COC shipped via FedEx

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (Lab filtered)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	MW-01-090116	09-01-16	0929	W	17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	QCTB-090116	09-01-16	0929	W	2		X				X										
3	MW-02-090116	09-01-16	1111	W	17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

KC 9-6-16

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
	Given to FedEx	09-01-16	1200
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
		9/2/16	1010
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

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WORK ORDER NUMBER: 16-09-0242

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/14/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0242

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Work Order Narrative

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/03/16. They were assigned to Work Order 16-09-0242.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0242
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/03/16 11:40
		Number of Containers:	17
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCEB-01-090116	16-09-0242-1	09/01/16 15:40	17	Aqueous

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-Q**	**09/01/16 15:40**	**Aqueous**	**IC 9**	**N/A**	**09/03/16 13:25**	**160903L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Method Blank	099-12-906-6916	N/A	Aqueous	IC 9	N/A	09/03/16 12:29	160903L01

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-G**	**09/01/16 15:40**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:09**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6678**	**N/A**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/08/16 15:57**	**160907LA4A**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-H**	**09/01/16 15:40**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:35**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5315**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:20**	**160907LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-G**	**09/01/16 15:40**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:33**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1206**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:20**	**160907LA4F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-H**	**09/01/16 15:40**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 13:11**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7967**	**N/A**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:27**	**160907LA3**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-G**	**09/01/16 15:40**	**Aqueous**	**Mercury 04**	**09/07/16**	**09/08/16 13:13**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-818**	**N/A**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:27**	**160907LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-M**	**09/01/16 15:40**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/08/16 16:00**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	50-110	
2-Fluorophenol	81	20-110	
Nitrobenzene-d5	75	40-110	
p-Terphenyl-d14	76	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	71	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-62**	**N/A**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 10:32**	**160903L05**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	50-110	
2-Fluorophenol	84	20-110	
Nitrobenzene-d5	76	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	78	10-115	
2,4,6-Tribromophenol	73	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-01-090116	**16-09-0242-1-A**	**09/01/16 15:40**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/08/16 02:39**	**160907L042**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	80-120	
Dibromofluoromethane	108	78-126	
1,2-Dichloroethane-d4	109	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0794			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2944**	**N/A**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/08/16 02:11**	**160907L042**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	87	80-120	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	110	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
QCEB-01-090116	**16-09-0242-1**	**09/01/16 15:40**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/12/16	Total Nitrogen by Calc

Method Blank						**N/A**		**Aqueous**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/07/16	09/07/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/09/16	09/09/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/07/16	09/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/03/16	09/03/16	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0241-2	**Sample**	**Aqueous**	**IC 9**	**N/A**	**09/03/16 14:03**	**160903S01**
16-09-0241-2	**Matrix Spike**	**Aqueous**	**IC 9**	**N/A**	**09/03/16 15:18**	**160903S01**
16-09-0241-2	**Matrix Spike Duplicate**	**Aqueous**	**IC 9**	**N/A**	**09/03/16 15:37**	**160903S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	57.43	50.00	99.58	84	99.28	84	80-120	0	0-20	
Sulfate	174.0	50.00	221.0	94	220.4	93	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0478-3	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**
16-09-0478-3	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**
16-09-0478-3	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1378	0.4000	0.5032	91	0.5015	91	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 3 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0478-3	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**
16-09-0478-3	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**
16-09-0478-3	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4216	1.220	1.540	92	1.535	91	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794		Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0363-1	**Sample**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3S4**
16-09-0363-1	**Matrix Spike**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3S4**
16-09-0363-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3S4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5462	109	0.5529	111	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
QCEB-01-090116	**Sample**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 14:54**	**G0903SURS1**
QCEB-01-090116	**Matrix Spike**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 14:54**	**G0903SURS1**
QCEB-01-090116	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 14:54**	**G0903SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9447	94	0.9211	92	70-130	3	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0040-7	**Sample**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:05**	**160907SA4**
16-09-0040-7	**Matrix Spike**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:02**	**160907SA4**
16-09-0040-7	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 11:03**	**160907SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	41.77	0.5000	42.02	4X	40.26	4X	80-120	4X	0-20	Q
Magnesium	12.12	0.5000	12.73	4X	12.25	4X	80-120	4X	0-20	Q
Sodium	66.32	5.000	71.65	4X	68.33	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0324-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:30**	**160907SA4**
16-09-0324-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:25**	**160907SA4**
16-09-0324-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:27**	**160907SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1044	104	0.1081	108	85-133	4	0-11	
Arsenic	0.001808	0.1000	0.09957	98	0.1026	101	73-127	3	0-11	
Barium	0.3280	0.1000	0.4126	85	0.4352	107	74-128	5	0-10	
Beryllium	ND	0.1000	0.08967	90	0.09387	94	56-122	5	0-11	
Cadmium	ND	0.1000	0.09514	95	0.09938	99	84-114	4	0-8	
Chromium	ND	0.1000	0.09666	97	0.1010	101	73-133	4	0-11	
Cobalt	ND	0.1000	0.08747	87	0.09174	92	79-121	5	0-10	
Copper	0.1914	0.1000	0.2678	76	0.2724	81	72-108	2	0-10	
Lead	0.001455	0.1000	0.1086	107	0.1131	112	79-121	4	0-10	
Molybdenum	0.003077	0.1000	0.1141	111	0.1178	115	83-137	3	0-10	
Nickel	0.006382	0.1000	0.09129	85	0.09450	88	68-122	3	0-10	
Selenium	ND	0.1000	0.09568	96	0.09916	99	59-125	4	0-12	
Silver	ND	0.05000	0.04476	90	0.05503	110	68-128	21	0-14	4
Thallium	ND	0.1000	0.1046	105	0.1084	108	73-121	4	0-11	
Vanadium	0.001499	0.1000	0.09563	94	0.09900	97	77-137	3	0-15	
Zinc	0.1771	0.1000	0.2490	72	0.2383	61	43-145	4	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0181-6	**Sample**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:49**	**160907SA3**
16-09-0181-6	**Matrix Spike**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:36**	**160907SA3**
16-09-0181-6	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:47**	**160907SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009167	92	0.009390	94	55-133	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 9 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0113-15	**Sample**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/08/16 03:07**	**160907S032**
16-09-0113-15	**Matrix Spike**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/08/16 07:44**	**160907S032**
16-09-0113-15	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/08/16 08:12**	**160907S032**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	75.61	151	76.60	153	22-178	1	0-26	
Benzene	ND	50.00	48.67	97	49.05	98	70-130	1	0-20	
Bromobenzene	ND	50.00	55.36	111	54.55	109	70-130	1	0-20	
Bromochloromethane	ND	50.00	49.06	98	48.98	98	70-132	0	0-20	
Bromodichloromethane	ND	50.00	51.62	103	52.34	105	69-135	1	0-20	
Bromoform	ND	50.00	48.64	97	50.30	101	70-133	3	0-20	
Bromomethane	ND	50.00	43.91	88	46.73	93	11-167	6	0-32	
2-Butanone	ND	50.00	45.29	91	46.14	92	39-159	2	0-21	
n-Butylbenzene	ND	50.00	55.56	111	56.11	112	62-152	1	0-28	
sec-Butylbenzene	ND	50.00	57.27	115	58.20	116	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	58.89	118	58.25	116	70-140	1	0-20	
Carbon Disulfide	ND	50.00	69.44	139	67.93	136	54-138	2	0-23	3
Carbon Tetrachloride	ND	50.00	58.16	116	58.11	116	63-153	0	0-22	
Chlorobenzene	ND	50.00	53.14	106	52.89	106	70-130	0	0-20	
Chloroethane	ND	50.00	47.90	96	46.97	94	44-140	2	0-32	
Chloroform	ND	50.00	50.08	100	50.29	101	68-134	0	0-20	
Chloromethane	ND	50.00	41.92	84	43.33	87	20-158	3	0-40	
2-Chlorotoluene	ND	50.00	56.50	113	55.99	112	70-137	1	0-20	
4-Chlorotoluene	ND	50.00	55.37	111	54.71	109	70-130	1	0-20	
Dibromochloromethane	ND	50.00	54.82	110	53.94	108	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	47.83	96	50.99	102	67-133	6	0-20	
1,2-Dibromoethane	ND	50.00	51.63	103	52.13	104	70-130	1	0-20	
Dibromomethane	ND	50.00	47.92	96	48.69	97	70-130	2	0-20	
1,2-Dichlorobenzene	ND	50.00	53.58	107	54.40	109	70-130	2	0-20	
1,3-Dichlorobenzene	ND	50.00	53.45	107	53.55	107	70-130	0	0-20	
1,4-Dichlorobenzene	ND	50.00	51.64	103	51.63	103	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	37.06	74	35.48	71	10-190	4	0-40	
1,1-Dichloroethane	ND	50.00	54.00	108	54.26	109	64-130	0	0-20	
1,2-Dichloroethane	ND	50.00	46.85	94	47.91	96	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	60.20	120	58.86	118	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	52.23	104	52.90	106	56-146	1	0-20	
t-1,2-Dichloroethene	ND	50.00	52.36	105	53.49	107	68-134	2	0-20	
1,2-Dichloropropane	ND	50.00	52.57	105	53.00	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	52.02	104	51.28	103	70-130	1	0-20	
2,2-Dichloropropane	ND	50.00	29.28	59	28.70	57	37-169	2	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 10 of 10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	52.29	105	53.14	106	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	46.18	92	46.91	94	67-139	2	0-20	
t-1,3-Dichloropropene	ND	50.00	48.54	97	48.58	97	58-136	0	0-20	
Ethylbenzene	ND	50.00	55.50	111	54.80	110	70-134	1	0-24	
2-Hexanone	ND	50.00	48.22	96	49.50	99	59-149	3	0-20	
Isopropylbenzene	ND	50.00	59.11	118	58.47	117	70-141	1	0-27	
p-Isopropyltoluene	ND	50.00	58.02	116	57.68	115	65-143	1	0-39	
Methylene Chloride	ND	50.00	50.91	102	51.03	102	69-130	0	0-21	
4-Methyl-2-Pentanone	ND	50.00	47.66	95	50.28	101	67-139	5	0-20	
Naphthalene	ND	50.00	55.33	111	54.39	109	61-139	2	0-20	
n-Propylbenzene	ND	50.00	55.40	111	55.31	111	70-140	0	0-24	
Styrene	ND	50.00	56.32	113	56.06	112	18-174	0	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	55.97	112	54.40	109	70-135	3	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	49.64	99	49.67	99	70-137	0	0-20	
Tetrachloroethene	ND	50.00	49.30	99	49.09	98	33-147	0	0-30	
Toluene	ND	50.00	52.34	105	52.45	105	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	52.95	106	54.13	108	64-142	2	0-22	
1,2,4-Trichlorobenzene	ND	50.00	53.78	108	55.05	110	60-144	2	0-24	
1,1,1-Trichloroethane	ND	50.00	51.01	102	51.28	103	68-140	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	55.66	111	54.21	108	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	51.57	103	50.45	101	70-130	2	0-20	
Trichloroethene	ND	50.00	48.98	98	49.76	100	42-156	2	0-20	
Trichlorofluoromethane	ND	50.00	49.00	98	47.53	95	54-162	3	0-30	
1,2,3-Trichloropropane	ND	50.00	50.48	101	50.60	101	67-130	0	0-20	
1,2,4-Trimethylbenzene	ND	50.00	56.37	113	55.70	111	70-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	57.83	116	57.60	115	70-139	0	0-20	
Vinyl Acetate	ND	50.00	32.75	66	33.26	67	10-190	2	0-40	
Vinyl Chloride	ND	50.00	51.12	102	50.26	101	59-137	2	0-20	
p/m-Xylene	ND	100.0	116.8	117	116.3	116	67-145	0	0-28	
o-Xylene	ND	50.00	60.07	120	59.45	119	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	51.41	103	51.28	103	69-130	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-09-0324-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/08/16 20:30**	**160907SA4**
16-09-0324-1	**PDS**	**Aqueous**	**ICP/MS 03**	**09/07/16 00:00**	**09/12/16 17:39**	**160907SA4**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1009	101	75-125	
Arsenic	0.001808	0.1000	0.09358	92	75-125	
Barium	0.3280	0.1000	0.4118	84	75-125	
Beryllium	ND	0.1000	0.09672	97	75-125	
Cadmium	ND	0.1000	0.09175	92	75-125	
Chromium	ND	0.1000	0.08458	85	75-125	
Cobalt	ND	0.1000	0.08526	85	75-125	
Copper	0.1914	0.1000	0.2549	63	75-125	5
Lead	0.001455	0.1000	0.1080	107	75-125	
Molybdenum	0.003077	0.1000	0.1144	111	75-125	
Nickel	0.006382	0.1000	0.08935	83	75-125	
Selenium	ND	0.1000	0.09117	91	75-125	
Silver	ND	0.05000	0.04668	93	75-125	
Thallium	ND	0.1000	0.1030	103	75-125	
Vanadium	0.001499	0.1000	0.09431	93	75-125	
Zinc	0.1771	0.1000	0.2517	75	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
QCEB-01-090116	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**
QCEB-01-090116	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
QCEB-01-090116	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**
QCEB-01-090116	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0109-3	**Sample**	**Aqueous**	**N/A**	**09/07/16 00:00**	**09/07/16 19:00**	**G0907TDSD1**
16-09-0109-3	**Sample Duplicate**	**Aqueous**	**N/A**	**09/07/16 00:00**	**09/07/16 19:00**	**G0907TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1670	1685	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane / SB0794			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0086-3	**Sample**	**Aqueous**	**BUR05**	**09/09/16 00:00**	**09/09/16 16:34**	**G0909TKND1**
16-09-0086-3	**Sample Duplicate**	**Aqueous**	**BUR05**	**09/09/16 00:00**	**09/09/16 16:34**	**G0909TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	74.90	73.92	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6916	**LCS**	**Aqueous**	**IC 9**	**N/A**	**09/03/16 12:48**	**160903L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	47.63	95	90-110	
Sulfate	50.00	50.05	100	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-981-182	**LCS**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**
099-15-981-182	**LCSD**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5233	**LCS**	**Aqueous**	**N/A**	**09/07/16**	**09/07/16 19:00**	**G0907TDSL1**
099-12-180-5233	**LCSD**	**Aqueous**	**N/A**	**09/07/16**	**09/07/16 19:00**	**G0907TDSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	90.00	90	95.00	95	80-120	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 4 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2789	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPL1**
099-05-098-2789	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4186	105	0.3950	99	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 5 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-203	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4L1**
099-14-276-203	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.281	105	1.209	99	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NH3 B/C
Project: CG Roxane / SB0794			Page 6 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2429	**LCS**	**Aqueous**	**BUR05**	**09/07/16**	**09/07/16 18:00**	**G0907NH3L1**
099-12-814-2429	**LCSD**	**Aqueous**	**BUR05**	**09/07/16**	**09/07/16 18:00**	**G0907NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.284	86	4.368	87	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 7 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-440	**LCS**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3L4**
099-14-282-440	**LCSD**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3L4**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5135	103	0.5167	103	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 8 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3136	**LCS**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 14:54**	**G0903SURL1**
099-05-093-3136	**LCSD**	**Aqueous**	**UV 8**	**09/03/16**	**09/03/16 14:54**	**G0903SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9425	94	0.9633	96	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 9 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6678	**LCS**	**Aqueous**	**ICP 7300**	**09/07/16**	**09/09/16 13:59**	**160907LA4A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.4804	96	85-115	
Magnesium	0.5000	0.5046	101	85-115	
Sodium	5.000	5.686	114	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 10 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5315	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:22**	**160907LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1019	102	80-120	73-127	
Arsenic	0.1000	0.1017	102	80-120	73-127	
Barium	0.1000	0.09975	100	80-120	73-127	
Beryllium	0.1000	0.1048	105	80-120	73-127	
Cadmium	0.1000	0.1008	101	80-120	73-127	
Chromium	0.1000	0.1061	106	80-120	73-127	
Cobalt	0.1000	0.1008	101	80-120	73-127	
Copper	0.1000	0.1050	105	80-120	73-127	
Lead	0.1000	0.09917	99	80-120	73-127	
Molybdenum	0.1000	0.09932	99	80-120	73-127	
Nickel	0.1000	0.1030	103	80-120	73-127	
Selenium	0.1000	0.1010	101	80-120	73-127	
Silver	0.05000	0.05105	102	80-120	73-127	
Thallium	0.1000	0.09542	95	80-120	73-127	
Vanadium	0.1000	0.1030	103	80-120	73-127	
Zinc	0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 11 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1206	**LCS**	**Aqueous**	**ICP/MS 03**	**09/07/16**	**09/08/16 20:22**	**160907LA4F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1019	102	80-120	73-127	
Arsenic	0.1000	0.1017	102	80-120	73-127	
Barium	0.1000	0.09975	100	80-120	73-127	
Beryllium	0.1000	0.1048	105	80-120	73-127	
Cadmium	0.1000	0.1008	101	80-120	73-127	
Chromium	0.1000	0.1061	106	80-120	73-127	
Cobalt	0.1000	0.1008	101	80-120	73-127	
Copper	0.1000	0.1050	105	80-120	73-127	
Lead	0.1000	0.09917	99	80-120	73-127	
Molybdenum	0.1000	0.09932	99	80-120	73-127	
Nickel	0.1000	0.1030	103	80-120	73-127	
Selenium	0.1000	0.1010	101	80-120	73-127	
Silver	0.05000	0.05105	102	80-120	73-127	
Thallium	0.1000	0.09542	95	80-120	73-127	
Vanadium	0.1000	0.1030	103	80-120	73-127	
Zinc	0.1000	0.1033	103	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 12 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7967	**LCS**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:32**	**160907LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 13 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-818	**LCS**	**Aqueous**	**Mercury 05**	**09/07/16**	**09/07/16 17:32**	**160907LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/03/16
Work Order: 16-09-0242
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-62	**LCS**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 10:51**	**160903L05**
099-02-008-62	**LCSD**	**Aqueous**	**GC/MS SS**	**09/03/16**	**09/06/16 11:13**	**160903L05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	80.36	80	82.26	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	79.89	80	81.23	81	50-105	41-114	2	0-20	
Aniline	100.0	80.76	81	83.65	84	50-130	37-143	4	0-20	
Anthracene	100.0	80.00	80	81.07	81	55-110	46-119	1	0-20	
Azobenzene	100.0	81.13	81	83.15	83	50-130	37-143	2	0-20	
Benzidine	100.0	54.22	54	52.46	52	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	77.93	78	79.71	80	55-110	46-119	2	0-20	
Benzo (a) Pyrene	100.0	80.56	81	81.17	81	55-110	46-119	1	0-20	
Benzo (b) Fluoranthene	100.0	80.77	81	79.23	79	45-120	32-132	2	0-20	
Benzo (g,h,i) Perylene	100.0	91.10	91	93.80	94	40-125	26-139	3	0-20	
Benzo (k) Fluoranthene	100.0	77.57	78	81.87	82	45-125	32-138	5	0-20	
Benzoic Acid	100.0	56.28	56	56.92	57	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	76.93	77	77.22	77	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.74	80	82.26	82	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.66	78	81.21	81	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	78.87	79	81.58	82	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.91	85	87.67	88	40-125	26-139	3	0-20	
4-Bromophenyl-Phenyl Ether	100.0	80.70	81	82.29	82	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	84.53	85	87.79	88	45-115	33-127	4	0-20	
4-Chloro-3-Methylphenol	100.0	77.76	78	79.71	80	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	87.81	88	88.92	89	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	78.53	79	81.67	82	50-105	41-114	4	0-20	
2-Chlorophenol	100.0	82.87	83	84.80	85	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	77.23	77	78.45	78	50-110	40-120	2	0-20	
Chrysene	100.0	79.07	79	81.05	81	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	83.67	84	83.84	84	42-120	29-133	0	0-21	
Di-n-Butyl Phthalate	100.0	79.28	79	81.32	81	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	83.92	84	85.56	86	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	82.25	82	85.05	85	40-125	26-139	3	0-20	
Dibenzofuran	100.0	81.50	81	82.22	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	78.53	79	80.28	80	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	79.70	80	81.27	81	30-100	18-112	2	0-20	
1,4-Dichlorobenzene	100.0	78.88	79	80.07	80	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	92.71	93	92.52	93	20-110	5-125	0	0-20	
2,4-Dichlorophenol	100.0	82.54	83	84.39	84	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	76.76	77	77.88	78	40-120	27-133	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 15 of 18

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	77.57	78	79.03	79	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	85.54	86	86.63	87	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	74.99	75	77.37	77	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	71.33	71	74.71	75	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	78.12	78	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	79.38	79	81.89	82	50-115	39-126	3	0-20	
Fluoranthene	100.0	77.85	78	77.62	78	55-115	45-125	0	0-20	
Fluorene	100.0	79.31	79	80.21	80	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	80.08	80	81.20	81	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	78.62	79	80.77	81	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	74.87	75	80.02	80	50-130	37-143	7	0-20	
Hexachloroethane	100.0	80.87	81	81.82	82	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.82	84	87.11	87	45-125	32-138	4	0-20	
Isophorone	100.0	76.58	77	78.78	79	50-110	40-120	3	0-20	
2-Methylnaphthalene	100.0	84.80	85	86.08	86	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	74.31	74	75.83	76	45-105	35-115	2	0-20	
2-Methylphenol	100.0	80.95	81	84.29	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	166.2	83	169.1	85	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	74.82	75	76.66	77	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	74.91	75	78.23	78	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	91.22	91	95.08	95	50-110	40-120	4	0-20	
Naphthalene	100.0	79.47	79	81.21	81	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	71.65	72	72.63	73	35-120	21-134	1	0-20	
3-Nitroaniline	100.0	63.93	64	64.31	64	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	79.91	80	82.30	82	50-115	39-126	3	0-20	
Nitrobenzene	100.0	81.04	81	83.76	84	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	83.97	84	83.44	83	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	77.04	77	79.47	79	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	66.08	66	67.50	68	40-115	28-128	2	0-40	
Phenanthrene	100.0	82.10	82	83.87	84	50-115	39-126	2	0-20	
Phenol	100.0	83.37	83	85.09	85	10-115	0-132	2	0-23	
Pyrene	100.0	82.91	83	85.15	85	50-130	37-143	3	0-20	
Pyridine	100.0	74.55	75	76.21	76	52-115	42-126	2	0-20	
1,2,4-Trichlorobenzene	100.0	80.11	80	81.45	81	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	77.66	78	80.65	81	50-115	39-126	4	0-20	
2,4,5-Trichlorophenol	100.0	77.96	78	81.60	82	50-110	40-120	5	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 18

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/03/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0242
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 17 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2944	**LCS**	**Aqueous**	**GC/MS V V**	**09/07/16**	**09/08/16 01:15**	**160907L042**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	48.26	97	12-150	0-173	
Benzene	50.00	44.87	90	80-120	73-127	
Bromobenzene	50.00	50.14	100	80-120	73-127	
Bromochloromethane	50.00	43.48	87	80-122	73-129	
Bromodichloromethane	50.00	49.10	98	80-123	73-130	
Bromoform	50.00	45.62	91	74-134	64-144	
Bromomethane	50.00	44.70	89	22-160	0-183	
2-Butanone	50.00	45.01	90	44-164	24-184	
n-Butylbenzene	50.00	50.22	100	80-132	71-141	
sec-Butylbenzene	50.00	51.46	103	80-129	72-137	
tert-Butylbenzene	50.00	51.47	103	80-130	72-138	
Carbon Disulfide	50.00	45.37	91	60-126	49-137	
Carbon Tetrachloride	50.00	49.00	98	64-148	50-162	
Chlorobenzene	50.00	48.20	96	80-120	73-127	
Chloroethane	50.00	46.51	93	63-123	53-133	
Chloroform	50.00	45.06	90	79-121	72-128	
Chloromethane	50.00	43.37	87	43-133	28-148	
2-Chlorotoluene	50.00	50.30	101	80-130	72-138	
4-Chlorotoluene	50.00	50.37	101	80-121	73-128	
Dibromochloromethane	50.00	49.04	98	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	48.53	97	68-128	58-138	
1,2-Dibromoethane	50.00	48.64	97	80-120	73-127	
Dibromomethane	50.00	46.13	92	80-121	73-128	
1,2-Dichlorobenzene	50.00	49.60	99	80-120	73-127	
1,3-Dichlorobenzene	50.00	49.23	98	80-121	73-128	
1,4-Dichlorobenzene	50.00	47.19	94	80-120	73-127	
Dichlorodifluoromethane	50.00	36.13	72	25-187	0-214	
1,1-Dichloroethane	50.00	46.33	93	75-120	68-128	
1,2-Dichloroethane	50.00	45.26	91	80-123	73-130	
1,1-Dichloroethene	50.00	42.13	84	74-122	66-130	
c-1,2-Dichloroethene	50.00	46.58	93	75-123	67-131	
t-1,2-Dichloroethene	50.00	46.81	94	70-124	61-133	
1,2-Dichloropropane	50.00	48.19	96	80-120	73-127	
1,3-Dichloropropane	50.00	48.11	96	80-120	73-127	
2,2-Dichloropropane	50.00	32.85	66	49-151	32-168	
1,1-Dichloropropene	50.00	45.30	91	76-120	69-127	
c-1,3-Dichloropropene	50.00	47.17	94	80-124	73-131	
t-1,3-Dichloropropene	50.00	47.85	96	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	09/03/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0242
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 18 of 18

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	49.40	99	80-120	73-127	
2-Hexanone	50.00	45.46	91	57-147	42-162	
Isopropylbenzene	50.00	52.29	105	80-127	72-135	
p-Isopropyltoluene	50.00	52.56	105	80-125	72-132	
Methylene Chloride	50.00	46.78	94	74-122	66-130	
4-Methyl-2-Pentanone	50.00	47.23	94	71-125	62-134	
Naphthalene	50.00	50.54	101	54-144	39-159	
n-Propylbenzene	50.00	50.05	100	80-127	72-135	
Styrene	50.00	51.89	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	49.93	100	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	46.17	92	78-126	70-134	
Tetrachloroethene	50.00	50.82	102	57-141	43-155	
Toluene	50.00	47.62	95	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.08	100	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	50.46	101	57-153	41-169	
1,1,1-Trichloroethane	50.00	45.05	90	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	42.08	84	58-148	43-163	
1,1,2-Trichloroethane	50.00	47.05	94	80-120	73-127	
Trichloroethene	50.00	45.36	91	80-120	73-127	
Trichlorofluoromethane	50.00	46.17	92	64-136	52-148	
1,2,3-Trichloropropane	50.00	48.56	97	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	51.21	102	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	52.46	105	80-126	72-134	
Vinyl Acetate	50.00	33.71	67	34-172	11-195	
Vinyl Chloride	50.00	47.58	95	67-127	57-137	
p/m-Xylene	100.0	104.5	104	80-127	72-135	
o-Xylene	50.00	53.26	107	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	47.96	96	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-09-0242 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	771	ICP 7300	1
EPA 300.0	N/A	1065	IC 9	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1073	GC/MS V V	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 8	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0242 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0242**

DATE: 9/1/16

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:
1 Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (~~lab filtered~~) 9/2/16	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	QCEB-090116	9-1-16	1540	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature) — geosyntec
Received by: (Signature/Affiliation) Shipped via Fedex
Date: 9-2-16 Time: 1600

Relinquished by: (Signature)
Received by: (Signature/Affiliation)
Date: 9/3/16 Time: 1140

Relinquished by: (Signature)
Received by: (Signature/Affiliation)
Date: Time:

06/02/14 Revision

Return to Contents

0242

ORIGIN ID:IYKA (805) 897-3800
KENJO AGUSTSSON
GEOSYNTEC CONSULTANTS
924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101
UNITED STATES US

SHIP DATE: 02SEP16
ACTWGT: 42.00 LB
CAD: 006994322/SSFE1704
DIMS: 25x15x14 IN

BILL THIRD PARTY

Part # 156297-435 RIT2 EXP 04/17

TO STEPHEN NOWAK
EUROFINS CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA

(714) 895-5494
INV:
PO:

RT 138 ST 32

5 12:00 B 7966 09.03

FedEx Express

1 of 2

TRK# 0201 7839 9422 7966

MASTER

SATURDAY 12:00P
PRIORITY OVERNIGHT

92841

ORIGIN ID:IYKA (805) 897-3800
KENJO AGUSTSSON
GEOSYNTEC CONSULTANTS
924 ANACAPA ST STE 4A

SANTA BARBARA, CA 93101
UNITED STATES US

SHIP DATE: 02SEP16
ACTWGT: 57.00 LB
CAD: 006994322/SSFE1704
DIMS: 19x15x12 IN

BILL THIRD PARTY

Part # 156297-435 RIT2 EXP 04/17

TO STEPHEN NOWAK
EUROFINS CALSCIENCE
7440 LINCOLN WAY

GARDEN GROVE CA 92841

(714) 895-5494
INV:
PO: REF: DEPT:

RT 138 ST 32

5 12:00 B 7977 09.03

2 of 2

MPS# 0263 7839 9422 7977

Mstr# 7839 9422 7966

0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

90 APVA

92841
CA-US SNA

Return to Contents

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WORK ORDER NUMBER: 16-09- 0242

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Geosyntec

DATE: 09 / 03 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.6 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 802

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 802

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 778

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ VOAh (5) ☐ VOAna$_2$ ☐ 100PJ ☐ 100PJna$_2$ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☑ 250CGBs (3) ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☑ 500PB ☑ 1AGB ☐ 1AGBna$_2$ ☑ 1AGBs (2) ☐ 1PB ☐ 1PBna ☑ 250PBnf ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 776

Reviewed by: 8m

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0242

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: GeoSyntec

DATE: 09 / 03 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.3 °C (w/ CF): 3.3 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 802

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 802

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 770

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☑ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☑ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 770

Reviewed by: [signature]

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09-0478

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/16/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0478

eurofins | Calscience

Work Order Narrative

Work Order: 16-09-0478 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/08/16. They were assigned to Work Order 16-09-0478.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0478
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/08/16 10:30
		Number of Containers:	104
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCTB-02-090616	16-09-0478-1	09/06/16 00:00	2	Aqueous
OW-8US-090616	16-09-0478-2	09/06/16 14:30	17	Aqueous
OW-8US-090616-DUP	16-09-0478-3	09/06/16 14:30	17	Aqueous
MW-12-090616	16-09-0478-4	09/06/16 16:50	17	Aqueous
MW-07-090716	16-09-0478-5	09/07/16 08:32	17	Aqueous
MW-06-090716	16-09-0478-6	09/07/16 11:02	17	Aqueous
QCEB-02-090616	16-09-0478-7	09/06/16 18:00	17	Aqueous

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0478
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/08/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OW-8US-090616 (16-09-0478-2)						
Calcium	12.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.37		0.100	mg/L	EPA 200.7	N/A
Sodium	18.0		0.500	mg/L	EPA 200.7	N/A
Chloride	3.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	7.3		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00573		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00209		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00212		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00565		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00212		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00204		0.00100	mg/L	EPA 6020	EPA 3020A Total
Selenium	0.00132		0.00100	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	82.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	82.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	110		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	2.4		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.14		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.42		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	1.3		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	2.4		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0478
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/08/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OW-8US-090616-DUP (16-09-0478-3)						
Calcium	12.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.34		0.100	mg/L	EPA 200.7	N/A
Sodium	17.6		0.500	mg/L	EPA 200.7	N/A
Chloride	3.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	7.0		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00588		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00198		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00212		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Selenium	0.00132		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00587		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00212		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00191		0.00100	mg/L	EPA 6020	EPA 3020A Total
Selenium	0.00116		0.00100	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	69.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	69.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	105		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	1.7		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.14		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.42		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	1.3		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.7		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0478
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/08/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-12-090616 (16-09-0478-4)						
Calcium	2.71		0.100	mg/L	EPA 200.7	N/A
Magnesium	3.06		0.100	mg/L	EPA 200.7	N/A
Sodium	379		0.500	mg/L	EPA 200.7	N/A
Chloride	91		1.0	mg/L	EPA 300.0	N/A
Sulfate	45		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00156		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0956		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00199		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0206		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00237		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00310		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0104		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00144		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0837		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00322		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00209		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0182		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00258		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00385		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0284		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	678		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	590		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1060		10.0	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	1.0		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.68		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	2.1		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.31		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.0		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0478
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/08/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-07-090716 (16-09-0478-5)						
Calcium	22.6		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.85		0.100	mg/L	EPA 200.7	N/A
Sodium	86.8		0.500	mg/L	EPA 200.7	N/A
Chloride	56		1.0	mg/L	EPA 300.0	N/A
Sulfate	60		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00143		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0170		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00507		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00177		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0168		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00190		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0101		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00176		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0169		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0329		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00214		0.00100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	0.00114		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00521		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00125		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0157		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00327		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00465		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0225		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	148		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	148		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	320		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.63		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.42		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.3		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.14		0.10	mg/L	SM 4500-NH3 B/C	N/A
MBAS	0.38		0.10	mg/L	SM 5540C	N/A
Total Nitrogen	0.63		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0478
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/08/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-06-090716 (16-09-0478-6)						
Calcium	16.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.86		0.100	mg/L	EPA 200.7	N/A
Sodium	272		0.500	mg/L	EPA 200.7	N/A
Chloride	330		5.0	mg/L	EPA 300.0	N/A
Sulfate	37		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0186		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00269		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00977		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00330		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0179		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00312		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00914		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00330		0.00100	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	178		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	138		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	755		1.00	mg/L	SM 2540 C	N/A
Phosphorus, Total	0.36		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.1		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
QCEB-02-090616 (16-09-0478-7)						
Sodium	0.882		0.500	mg/L	EPA 200.7	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-Q**	**09/06/16 14:30**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 12:19**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	3.7	1.0	1.00	
Sulfate	7.3	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-Q**	**09/06/16 14:30**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 12:37**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	3.7	1.0	1.00	
Sulfate	7.0	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-Q**	**09/06/16 16:50**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 15:17**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	91	1.0	1.00	
Sulfate	45	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-Q**	**09/07/16 08:32**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 15:35**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	56	1.0	1.00	
Sulfate	60	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-Q**	**09/07/16 11:02**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 15:54**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	37	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-Q**	**09/07/16 11:02**	**Aqueous**	**IC 15**	**N/A**	**09/09/16 00:18**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	330	5.0	5.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-O**	**09/06/16 18:00**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 01:06**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6924**	**N/A**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 11:24**	**160908L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6933**	**N/A**	**Aqueous**	**IC 10**	**N/A**	**09/09/16 21:34**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-G**	**09/06/16 14:30**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 11:44**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	12.1	0.100	1.00	
Magnesium	2.37	0.100	1.00	
Sodium	18.0	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-G**	**09/06/16 14:30**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 11:45**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	12.1	0.100	1.00	
Magnesium	2.34	0.100	1.00	
Sodium	17.6	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-G**	**09/06/16 16:50**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 11:46**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	2.71	0.100	1.00	
Magnesium	3.06	0.100	1.00	
Sodium	379	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-G**	**09/07/16 08:32**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 11:47**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	22.6	0.100	1.00	
Magnesium	2.85	0.100	1.00	
Sodium	86.8	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-G**	**09/07/16 11:02**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 11:48**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	16.1	0.100	1.00	
Magnesium	1.86	0.100	1.00	
Sodium	272	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-H**	**09/06/16 18:00**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 11:50**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	0.882	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6681**	**N/A**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 10:31**	**160909LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 1 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-G**	**09/06/16 14:30**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/15/16 12:25**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00565	0.00100	1.00	
Barium	0.00212	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00204	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	0.00132	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-G**	**09/06/16 14:30**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/15/16 12:27**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00587	0.00100	1.00	
Barium	0.00212	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00191	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	0.00116	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-G**	**09/06/16 16:50**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 13:24**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00144	0.00100	1.00	
Arsenic	0.0837	0.00100	1.00	
Barium	0.00322	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00209	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0182	0.00100	1.00	
Nickel	0.00258	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00385	0.00100	1.00	
Zinc	0.0284	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-G**	**09/07/16 08:32**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 13:27**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00176	0.00100	1.00	
Arsenic	0.0169	0.00100	1.00	
Barium	0.0329	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00214	0.00100	1.00	
Cobalt	0.00114	0.00100	1.00	
Copper	0.00521	0.00100	1.00	
Lead	0.00125	0.00100	1.00	
Molybdenum	0.0157	0.00100	1.00	
Nickel	0.00327	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00465	0.00100	1.00	
Zinc	0.0225	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 5 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-G**	**09/07/16 11:02**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/15/16 12:30**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0179	0.00100	1.00	
Barium	0.00312	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00914	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00330	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-G**	**09/06/16 18:00**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/14/16 13:54**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5317**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 12:17**	**160909LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-H**	**09/06/16 14:30**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/15/16 12:17**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00573	0.00100	1.00	
Barium	0.00209	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00212	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-H**	**09/06/16 14:30**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/15/16 12:20**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00588	0.00100	1.00	
Barium	0.00198	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00212	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	0.00132	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 3 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-H**	**09/06/16 16:50**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 13:42**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00156	0.00100	1.00	
Arsenic	0.0956	0.00100	1.00	
Barium	0.00199	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0206	0.00100	1.00	
Nickel	0.00237	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00310	0.00100	1.00	
Zinc	0.0104	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-H**	**09/07/16 08:32**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 13:45**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00143	0.00100	1.00	
Arsenic	0.0170	0.00100	1.00	
Barium	0.00507	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00177	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0168	0.00100	1.00	
Nickel	0.00190	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0101	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-H**	**09/07/16 11:02**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/15/16 12:22**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0186	0.00100	1.00	
Barium	0.00269	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00977	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00330	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-H**	**09/06/16 18:00**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/14/16 13:57**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1208**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 12:17**	**160909LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-G**	**09/06/16 14:30**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:18**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-G**	**09/06/16 14:30**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:24**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-G**	**09/06/16 16:50**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:27**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-G**	**09/07/16 08:32**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:29**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-G**	**09/07/16 11:02**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:31**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-H**	**09/06/16 18:00**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:33**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.00250	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7972**	**N/A**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 18:58**	**160912LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-H**	**09/06/16 14:30**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:36**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.00250	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-H**	**09/06/16 14:30**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:38**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.00250	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-H**	**09/06/16 16:50**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:40**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.00250	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-H**	**09/07/16 08:32**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/13/16 13:51**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-H**	**09/07/16 11:02**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:45**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-G**	**09/06/16 18:00**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:51**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-822**	**N/A**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 18:58**	**160912LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-N**	**09/06/16 14:30**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 13:51**	**160909L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	82	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	91	40-110	
p-Terphenyl-d14	96	50-135	
Phenol-d6	36	10-115	
2,4,6-Tribromophenol	82	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-N**	**09/06/16 14:30**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 14:10**	**160909L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	81	50-110	
2-Fluorophenol	63	20-110	
Nitrobenzene-d5	92	40-110	
p-Terphenyl-d14	96	50-135	
Phenol-d6	37	10-115	
2,4,6-Tribromophenol	86	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-N**	**09/06/16 16:50**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 14:30**	**160909L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	95	50-135	
Phenol-d6	34	10-115	
2,4,6-Tribromophenol	84	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-N**	**09/07/16 08:32**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 14:49**	**160909L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.7	1.00	
Acenaphthylene	ND	9.7	1.00	
Aniline	ND	9.7	1.00	
Anthracene	ND	9.7	1.00	
Azobenzene	ND	9.7	1.00	
Benzidine	ND	49	1.00	
Benzo (a) Anthracene	ND	9.7	1.00	
Benzo (a) Pyrene	ND	9.7	1.00	
Benzo (b) Fluoranthene	ND	9.7	1.00	
Benzo (g,h,i) Perylene	ND	9.7	1.00	
Benzo (k) Fluoranthene	ND	9.7	1.00	
Benzoic Acid	ND	49	1.00	
Benzyl Alcohol	ND	9.7	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.7	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.7	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.7	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.7	1.00	
Butyl Benzyl Phthalate	ND	9.7	1.00	
4-Chloro-3-Methylphenol	ND	9.7	1.00	
4-Chloroaniline	ND	9.7	1.00	
2-Chloronaphthalene	ND	9.7	1.00	
2-Chlorophenol	ND	9.7	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.7	1.00	
Chrysene	ND	9.7	1.00	
2,6-Dichlorophenol	ND	9.7	1.00	
Di-n-Butyl Phthalate	ND	9.7	1.00	
Di-n-Octyl Phthalate	ND	9.7	1.00	
Dibenz (a,h) Anthracene	ND	9.7	1.00	
Dibenzofuran	ND	9.7	1.00	
1,2-Dichlorobenzene	ND	9.7	1.00	
1,3-Dichlorobenzene	ND	9.7	1.00	
1,4-Dichlorobenzene	ND	9.7	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.7	1.00	
Dimethyl Phthalate	ND	9.7	1.00	
2,4-Dimethylphenol	ND	9.7	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.7	1.00	
2,6-Dinitrotoluene	ND	9.7	1.00	
Fluoranthene	ND	9.7	1.00	
Fluorene	ND	9.7	1.00	
Hexachloro-1,3-Butadiene	ND	9.7	1.00	
Hexachlorobenzene	ND	9.7	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.7	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.7	1.00	
Isophorone	ND	9.7	1.00	
2-Methylnaphthalene	ND	9.7	1.00	
1-Methylnaphthalene	ND	9.7	1.00	
2-Methylphenol	ND	9.7	1.00	
3/4-Methylphenol	ND	9.7	1.00	
N-Nitroso-di-n-propylamine	ND	9.7	1.00	
N-Nitrosodimethylamine	ND	9.7	1.00	
N-Nitrosodiphenylamine	ND	9.7	1.00	
Naphthalene	ND	9.7	1.00	
4-Nitroaniline	ND	9.7	1.00	
3-Nitroaniline	ND	9.7	1.00	
2-Nitroaniline	ND	9.7	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.7	1.00	
2-Nitrophenol	ND	9.7	1.00	
Pentachlorophenol	ND	9.7	1.00	
Phenanthrene	ND	9.7	1.00	
Phenol	ND	9.7	1.00	
Pyrene	ND	9.7	1.00	
Pyridine	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	9.7	1.00	
2,4,6-Trichlorophenol	ND	9.7	1.00	
2,4,5-Trichlorophenol	ND	9.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 12 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	91	40-110	
p-Terphenyl-d14	97	50-135	
Phenol-d6	38	10-115	
2,4,6-Tribromophenol	92	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-N**	**09/07/16 11:02**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 15:09**	**160909L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.7	1.00	
Acenaphthylene	ND	9.7	1.00	
Aniline	ND	9.7	1.00	
Anthracene	ND	9.7	1.00	
Azobenzene	ND	9.7	1.00	
Benzidine	ND	49	1.00	
Benzo (a) Anthracene	ND	9.7	1.00	
Benzo (a) Pyrene	ND	9.7	1.00	
Benzo (b) Fluoranthene	ND	9.7	1.00	
Benzo (g,h,i) Perylene	ND	9.7	1.00	
Benzo (k) Fluoranthene	ND	9.7	1.00	
Benzoic Acid	ND	49	1.00	
Benzyl Alcohol	ND	9.7	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.7	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.7	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.7	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.7	1.00	
Butyl Benzyl Phthalate	ND	9.7	1.00	
4-Chloro-3-Methylphenol	ND	9.7	1.00	
4-Chloroaniline	ND	9.7	1.00	
2-Chloronaphthalene	ND	9.7	1.00	
2-Chlorophenol	ND	9.7	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.7	1.00	
Chrysene	ND	9.7	1.00	
2,6-Dichlorophenol	ND	9.7	1.00	
Di-n-Butyl Phthalate	ND	9.7	1.00	
Di-n-Octyl Phthalate	ND	9.7	1.00	
Dibenz (a,h) Anthracene	ND	9.7	1.00	
Dibenzofuran	ND	9.7	1.00	
1,2-Dichlorobenzene	ND	9.7	1.00	
1,3-Dichlorobenzene	ND	9.7	1.00	
1,4-Dichlorobenzene	ND	9.7	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.7	1.00	
Dimethyl Phthalate	ND	9.7	1.00	
2,4-Dimethylphenol	ND	9.7	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.7	1.00	
2,6-Dinitrotoluene	ND	9.7	1.00	
Fluoranthene	ND	9.7	1.00	
Fluorene	ND	9.7	1.00	
Hexachloro-1,3-Butadiene	ND	9.7	1.00	
Hexachlorobenzene	ND	9.7	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.7	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.7	1.00	
Isophorone	ND	9.7	1.00	
2-Methylnaphthalene	ND	9.7	1.00	
1-Methylnaphthalene	ND	9.7	1.00	
2-Methylphenol	ND	9.7	1.00	
3/4-Methylphenol	ND	9.7	1.00	
N-Nitroso-di-n-propylamine	ND	9.7	1.00	
N-Nitrosodimethylamine	ND	9.7	1.00	
N-Nitrosodiphenylamine	ND	9.7	1.00	
Naphthalene	ND	9.7	1.00	
4-Nitroaniline	ND	9.7	1.00	
3-Nitroaniline	ND	9.7	1.00	
2-Nitroaniline	ND	9.7	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.7	1.00	
2-Nitrophenol	ND	9.7	1.00	
Pentachlorophenol	ND	9.7	1.00	
Phenanthrene	ND	9.7	1.00	
Phenol	ND	9.7	1.00	
Pyrene	ND	9.7	1.00	
Pyridine	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	9.7	1.00	
2,4,6-Trichlorophenol	ND	9.7	1.00	
2,4,5-Trichlorophenol	ND	9.7	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 15 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	50-110	
2-Fluorophenol	65	20-110	
Nitrobenzene-d5	96	40-110	
p-Terphenyl-d14	96	50-135	
Phenol-d6	39	10-115	
2,4,6-Tribromophenol	90	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-N**	**09/06/16 18:00**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 13:02**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 18 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	84	40-110	
p-Terphenyl-d14	87	50-135	
Phenol-d6	36	10-115	
2,4,6-Tribromophenol	98	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-64**	**N/A**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 13:31**	**160909L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 20 of 24

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 21 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	96	20-110	
Nitrobenzene-d5	88	40-110	
p-Terphenyl-d14	89	50-135	
Phenol-d6	90	10-115	
2,4,6-Tribromophenol	79	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-63**	**N/A**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 12:40**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 23 of 24

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 24 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	98	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	91	10-115	
2,4,6-Tribromophenol	93	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-02-090616	**16-09-0478-1-B**	**09/06/16 00:00**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 22:03**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	103	75-135	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616	**16-09-0478-2-B**	**09/06/16 14:30**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 19:41**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane / SB0794		Page 4 of 18

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OW-8US-090616-DUP	**16-09-0478-3-B**	**09/06/16 14:30**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 22:32**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	99	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12-090616	**16-09-0478-4-B**	**09/06/16 16:50**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 23:00**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	99	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-090716	**16-09-0478-5-D**	**09/07/16 08:32**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 23:29**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-090716	**16-09-0478-6-B**	**09/07/16 11:02**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 23:57**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-02-090616	**16-09-0478-7-A**	**09/06/16 18:00**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 18:24**	**160909L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	94	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2956**	**N/A**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 17:00**	**160909L031**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	96	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2957**	**N/A**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 16:50**	**160909L040**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	111	78-126	
1,2-Dichloroethane-d4	102	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
OW-8US-090616	**16-09-0478-2**	**09/06/16 14:30**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	82.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	82.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	110	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	2.4	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.14	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	0.42	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	1.3	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	2.4	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
OW-8US-090616-DUP	**16-09-0478-3**	**09/06/16 14:30**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	69.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	69.0	1.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	105	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	1.7	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.14	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	0.42	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	1.3	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	1.7	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-12-090616	**16-09-0478-4**	**09/06/16 16:50**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	678	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	590	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	1060	10.0	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	1.0	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.68	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	2.1	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.31	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	1.0	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-07-090716	**16-09-0478-5**	**09/07/16 08:32**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	148	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	148	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	320	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	0.63	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.42	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.3	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.14	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	0.38	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	0.63	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

MW-06-090716	**16-09-0478-6**	**09/07/16 11:02**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	178	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	138	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	755	1.00	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	0.36	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.1	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

QCEB-02-090616	**16-09-0478-7**	**09/06/16 18:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/15/16	Total Nitrogen by Calc

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
Method Blank		**N/A**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/13/16	09/13/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/12/16	09/12/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/08/16	09/08/16	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 300.0
Project: CG Roxane / SB0794		Page 1 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0590-3	**Sample**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 02:03**	**160909S02**
16-09-0590-3	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 05:16**	**160909S02**
16-09-0590-3	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 05:35**	**160909S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	6.381	50.00	56.08	99	55.94	99	80-120	0	0-20	
Sulfate	424.2	50.00	491.0	134	492.6	137	80-120	0	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 2 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0433-10	**Sample**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 22:46**	**160908S01**
16-09-0433-10	**Matrix Spike**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 14:27**	**160908S01**
16-09-0433-10	**Matrix Spike Duplicate**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 14:45**	**160908S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	358.5	50.00	513.3	309	512.9	309	80-120	0	0-20	3
Sulfate	437.8	50.00	653.3	431	652.6	430	80-120	0	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 3 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
OW-8US-090616-DUP	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**
OW-8US-090616-DUP	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**
OW-8US-090616-DUP	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1378	0.4000	0.5032	91	0.5015	91	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
OW-8US-090616-DUP	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**
OW-8US-090616-DUP	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**
OW-8US-090616-DUP	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4216	1.220	1.540	92	1.535	91	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0363-1	**Sample**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3S4**
16-09-0363-1	**Matrix Spike**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3S4**
16-09-0363-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3S4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5462	109	0.5529	111	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 5540C
Project: CG Roxane / SB0794		Page 6 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0498-1	**Sample**	**Aqueous**	**UV 7**	**09/08/16**	**09/08/16 14:07**	**G0908SURS1**
16-09-0498-1	**Matrix Spike**	**Aqueous**	**UV 7**	**09/08/16**	**09/08/16 14:07**	**G0908SURS1**
16-09-0498-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/08/16**	**09/08/16 14:07**	**G0908SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	1.029	103	1.089	109	70-130	6	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0534-1	**Sample**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 12:07**	**160909SA6**
16-09-0534-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 12:11**	**160909SA6**
16-09-0534-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 12:12**	**160909SA6**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	44.91	0.5000	45.07	4X	47.23	4X	80-120	4X	0-20	Q
Magnesium	22.17	0.5000	22.16	4X	23.58	4X	80-120	4X	0-20	Q
Sodium	383.0	5.000	386.8	4X	408.4	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 8 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0546-4	**Sample**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 13:06**	**160909SA2**
16-09-0546-4	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 12:22**	**160909SA2**
16-09-0546-4	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 12:24**	**160909SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1019	102	0.1002	100	85-133	2	0-11	
Arsenic	ND	0.1000	0.09418	94	0.09342	93	73-127	1	0-11	
Barium	0.04646	0.1000	0.1571	111	0.1542	108	74-128	2	0-10	
Beryllium	ND	0.1000	0.09278	93	0.09226	92	56-122	1	0-11	
Cadmium	ND	0.1000	0.09443	94	0.09404	94	84-114	0	0-8	
Chromium	0.001408	0.1000	0.09831	97	0.09611	95	73-133	2	0-11	
Cobalt	ND	0.1000	0.1023	102	0.1005	101	79-121	2	0-10	
Copper	0.003523	0.1000	0.09547	92	0.09365	90	72-108	2	0-10	
Lead	ND	0.1000	0.1165	117	0.1156	116	79-121	1	0-10	
Molybdenum	ND	0.1000	0.1263	126	0.1239	124	83-137	2	0-10	
Nickel	0.003425	0.1000	0.1018	98	0.09978	96	68-122	2	0-10	
Selenium	ND	0.1000	0.07109	71	0.06420	64	59-125	10	0-12	
Silver	ND	0.05000	0.04740	95	0.04579	92	68-128	3	0-14	
Thallium	ND	0.1000	0.1117	112	0.1116	112	73-121	0	0-11	
Vanadium	ND	0.1000	0.1106	111	0.1084	108	77-137	2	0-15	
Zinc	0.01348	0.1000	0.08604	73	0.09470	81	43-145	10	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 9 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0546-3	**Sample**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:09**	**160912SA1**
16-09-0546-3	**Matrix Spike**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:05**	**160912SA1**
16-09-0546-3	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:07**	**160912SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.008350	83	0.009228	92	55-133	10	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 10 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
OW-8US-090616	**Sample**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 19:41**	**160909S014**
OW-8US-090616	**Matrix Spike**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 20:09**	**160909S014**
OW-8US-090616	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 20:38**	**160909S014**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	42.90	86	43.91	88	22-178	2	0-26	
Benzene	ND	50.00	48.26	97	48.05	96	70-130	0	0-20	
Bromobenzene	ND	50.00	53.61	107	51.98	104	70-130	3	0-20	
Bromochloromethane	ND	50.00	50.16	100	50.80	102	70-132	1	0-20	
Bromodichloromethane	ND	50.00	53.82	108	52.82	106	69-135	2	0-20	
Bromoform	ND	50.00	47.08	94	47.19	94	70-133	0	0-20	
Bromomethane	ND	50.00	54.80	110	60.59	121	11-167	10	0-32	
2-Butanone	ND	50.00	43.98	88	44.77	90	39-159	2	0-21	
n-Butylbenzene	ND	50.00	55.81	112	55.77	112	62-152	0	0-28	
sec-Butylbenzene	ND	50.00	54.22	108	54.65	109	70-143	1	0-24	
tert-Butylbenzene	ND	50.00	51.95	104	53.17	106	70-140	2	0-20	
Carbon Disulfide	ND	50.00	41.12	82	42.09	84	54-138	2	0-23	
Carbon Tetrachloride	ND	50.00	53.99	108	53.63	107	63-153	1	0-22	
Chlorobenzene	ND	50.00	50.28	101	49.43	99	70-130	2	0-20	
Chloroethane	ND	50.00	58.40	117	60.36	121	44-140	3	0-32	
Chloroform	ND	50.00	50.26	101	49.67	99	68-134	1	0-20	
Chloromethane	ND	50.00	43.65	87	47.25	95	20-158	8	0-40	
2-Chlorotoluene	ND	50.00	54.32	109	52.72	105	70-137	3	0-20	
4-Chlorotoluene	ND	50.00	51.57	103	51.64	103	70-130	0	0-20	
Dibromochloromethane	ND	50.00	52.53	105	50.93	102	70-133	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	49.40	99	48.88	98	67-133	1	0-20	
1,2-Dibromoethane	ND	50.00	49.65	99	48.93	98	70-130	1	0-20	
Dibromomethane	ND	50.00	51.18	102	51.22	102	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.87	104	51.71	103	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	51.78	104	51.81	104	70-130	0	0-20	
1,4-Dichlorobenzene	ND	50.00	51.00	102	50.92	102	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	39.75	80	41.25	83	10-190	4	0-40	
1,1-Dichloroethane	ND	50.00	49.26	99	49.60	99	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	51.99	104	51.32	103	69-135	1	0-20	
1,1-Dichloroethene	ND	50.00	45.81	92	46.69	93	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	47.44	95	47.78	96	56-146	1	0-20	
t-1,2-Dichloroethene	ND	50.00	47.34	95	48.55	97	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	50.98	102	51.50	103	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	47.98	96	47.09	94	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	54.52	109	52.88	106	37-169	3	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 11 of 12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	48.88	98	48.58	97	66-132	1	0-20	
c-1,3-Dichloropropene	ND	50.00	51.54	103	51.62	103	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	52.02	104	51.06	102	58-136	2	0-20	
Ethylbenzene	ND	50.00	51.26	103	50.50	101	70-134	1	0-24	
2-Hexanone	ND	50.00	46.89	94	46.43	93	59-149	1	0-20	
Isopropylbenzene	ND	50.00	55.27	111	53.71	107	70-141	3	0-27	
p-Isopropyltoluene	ND	50.00	53.64	107	53.75	108	65-143	0	0-39	
Methylene Chloride	ND	50.00	46.62	93	46.90	94	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	49.64	99	48.53	97	67-139	2	0-20	
Naphthalene	ND	50.00	49.55	99	50.99	102	61-139	3	0-20	
n-Propylbenzene	ND	50.00	55.59	111	54.14	108	70-140	3	0-24	
Styrene	ND	50.00	52.84	106	51.51	103	18-174	3	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	52.60	105	51.49	103	70-135	2	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	48.26	97	47.74	95	70-137	1	0-20	
Tetrachloroethene	ND	50.00	49.28	99	49.03	98	33-147	1	0-30	
Toluene	ND	50.00	51.27	103	51.31	103	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	53.35	107	54.38	109	64-142	2	0-22	
1,2,4-Trichlorobenzene	ND	50.00	54.62	109	55.14	110	60-144	1	0-24	
1,1,1-Trichloroethane	ND	50.00	51.25	103	50.18	100	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	39.66	79	42.97	86	21-190	8	0-40	
1,1,2-Trichloroethane	ND	50.00	49.51	99	48.73	97	70-130	2	0-20	
Trichloroethene	ND	50.00	51.65	103	50.73	101	42-156	2	0-20	
Trichlorofluoromethane	ND	50.00	55.11	110	54.44	109	54-162	1	0-30	
1,2,3-Trichloropropane	ND	50.00	47.60	95	45.10	90	67-130	5	0-20	
1,2,4-Trimethylbenzene	ND	50.00	52.94	106	52.71	105	70-133	0	0-20	
1,3,5-Trimethylbenzene	ND	50.00	55.71	111	54.13	108	70-139	3	0-20	
Vinyl Acetate	ND	50.00	18.29	37	18.81	38	10-190	3	0-40	
Vinyl Chloride	ND	50.00	52.40	105	58.17	116	59-137	10	0-20	
p/m-Xylene	ND	100.0	105.8	106	103.5	104	67-145	2	0-28	
o-Xylene	ND	50.00	55.35	111	54.01	108	70-142	2	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	48.68	97	49.16	98	69-130	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 12 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0559-4	**Sample**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 18:52**	**160909S016**
16-09-0559-4	**Matrix Spike**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 19:20**	**160909S016**
16-09-0559-4	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 19:48**	**160909S016**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	8.615	50.00	60.08	103	60.89	105	78-120	1	0-20	
Carbon Tetrachloride	ND	50.00	50.91	102	51.08	102	67-139	0	0-20	
Chlorobenzene	ND	50.00	52.99	106	52.49	105	80-120	1	0-20	
1,2-Dibromoethane	ND	50.00	52.49	105	52.60	105	80-123	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.28	103	52.18	104	76-120	2	0-20	
1,2-Dichloroethane	ND	50.00	46.85	94	47.51	95	76-130	1	0-20	
1,1-Dichloroethene	ND	50.00	51.37	103	51.88	104	70-130	1	0-27	
Ethylbenzene	3.224	50.00	57.10	108	56.57	107	73-127	1	0-20	
Toluene	3.712	50.00	56.69	106	56.81	106	72-126	0	0-20	
Trichloroethene	ND	50.00	49.80	100	50.70	101	74-122	2	0-20	
Vinyl Chloride	ND	50.00	47.64	95	48.09	96	65-131	1	0-24	
p/m-Xylene	9.658	100.0	113.8	104	112.1	102	70-130	2	0-30	
o-Xylene	2.848	50.00	55.08	104	53.77	102	70-130	2	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	50.11	100	51.00	102	69-123	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-09-0546-4	**Sample**	**Aqueous**	**ICP/MS 03**	**09/09/16 00:00**	**09/12/16 13:06**	**160909SA2**
16-09-0546-4	**PDS**	**Aqueous**	**ICP/MS 03**	**09/09/16 00:00**	**09/12/16 12:27**	**160909SA2**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.09614	96	75-125	
Arsenic	ND	0.1000	0.08743	87	75-125	
Barium	0.04646	0.1000	0.1449	98	75-125	
Beryllium	ND	0.1000	0.08674	87	75-125	
Cadmium	ND	0.1000	0.08868	89	75-125	
Chromium	0.001408	0.1000	0.09085	89	75-125	
Cobalt	ND	0.1000	0.09262	93	75-125	
Copper	0.003523	0.1000	0.08836	85	75-125	
Lead	ND	0.1000	0.1093	109	75-125	
Molybdenum	ND	0.1000	0.1154	115	75-125	
Nickel	0.003425	0.1000	0.09224	89	75-125	
Selenium	ND	0.1000	0.09165	92	75-125	
Silver	ND	0.05000	0.04411	88	75-125	
Thallium	ND	0.1000	0.1051	105	75-125	
Vanadium	ND	0.1000	0.1001	100	75-125	
Zinc	0.01348	0.1000	0.08862	75	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OW-8US-090616	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKD2**
OW-8US-090616	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	82.00	74.00	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OW-8US-090616	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910HCOD2**
OW-8US-090616	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910HCOD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	82.00	74.00	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**
16-09-0242-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**
16-09-0242-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0490-1	**Sample**	**Aqueous**	**N/A**	**09/13/16 00:00**	**09/13/16 17:00**	**G0913TDSD1**
16-09-0490-1	**Sample Duplicate**	**Aqueous**	**N/A**	**09/13/16 00:00**	**09/13/16 17:00**	**G0913TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	3725	3670	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane / SB0794			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0241-2	**Sample**	**Aqueous**	**BUR05**	**09/12/16 00:00**	**09/12/16 12:17**	**G0912TKND1**
16-09-0241-2	**Sample Duplicate**	**Aqueous**	**BUR05**	**09/12/16 00:00**	**09/12/16 12:17**	**G0912TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	1.750	1.610	8	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6933	**LCS**	**Aqueous**	**IC 10**	**N/A**	**09/09/16 21:53**	**160909L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.96	100	90-110	
Sulfate	50.00	50.82	102	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 2 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6924	**LCS**	**Aqueous**	**IC 15**	**N/A**	**09/08/16 11:46**	**160908L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	51.84	104	90-110	
Sulfate	50.00	51.87	104	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 3 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-1057	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKB2**
099-15-859-1057	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKB2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	99.00	99	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 4 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-981-182	**LCS**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**
099-15-981-182	**LCSD**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5240	**LCS**	**Aqueous**	**N/A**	**09/13/16**	**09/13/16 17:00**	**G0913TDSL1**
099-12-180-5240	**LCSD**	**Aqueous**	**N/A**	**09/13/16**	**09/13/16 17:00**	**G0913TDSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	85.00	85	80.00	80	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 6 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2789	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPL1**
099-05-098-2789	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4186	105	0.3950	99	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 7 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-203	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4L1**
099-14-276-203	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.281	105	1.209	99	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: SM 4500-NH3 B/C
Page 8 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2431	**LCS**	**Aqueous**	**BUR05**	**09/13/16**	**09/13/16 17:35**	**G0913NH3L1**
099-12-814-2431	**LCSD**	**Aqueous**	**BUR05**	**09/13/16**	**09/13/16 17:35**	**G0913NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.536	91	4.564	91	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 9 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-440	**LCS**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3L4**
099-14-282-440	**LCSD**	**Aqueous**	**UV 8**	**09/08/16**	**09/08/16 19:50**	**G0908NO3L4**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5135	103	0.5167	103	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: N/A
Method: SM 5540C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3138	**LCS**	**Aqueous**	**UV 7**	**09/08/16**	**09/08/16 14:07**	**G0908SURL1**
099-05-093-3138	**LCSD**	**Aqueous**	**UV 7**	**09/08/16**	**09/08/16 14:07**	**G0908SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	1.029	103	0.9810	98	80-120	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 11 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6681	**LCS**	**Aqueous**	**ICP 7300**	**09/09/16**	**09/12/16 10:32**	**160909LA6**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.4518	90	85-115	
Magnesium	0.5000	0.5121	102	85-115	
Sodium	5.000	4.982	100	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 12 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5317	**LCS**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 12:19**	**160909LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.09873	99	80-120	73-127	
Arsenic	0.1000	0.09678	97	80-120	73-127	
Barium	0.1000	0.09796	98	80-120	73-127	
Beryllium	0.1000	0.09962	100	80-120	73-127	
Cadmium	0.1000	0.09863	99	80-120	73-127	
Chromium	0.1000	0.1033	103	80-120	73-127	
Cobalt	0.1000	0.09722	97	80-120	73-127	
Copper	0.1000	0.09667	97	80-120	73-127	
Lead	0.1000	0.1013	101	80-120	73-127	
Molybdenum	0.1000	0.1049	105	80-120	73-127	
Nickel	0.1000	0.09931	99	80-120	73-127	
Selenium	0.1000	0.09989	100	80-120	73-127	
Silver	0.05000	0.04978	100	80-120	73-127	
Thallium	0.1000	0.09711	97	80-120	73-127	
Vanadium	0.1000	0.09904	99	80-120	73-127	
Zinc	0.1000	0.09950	99	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 13 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1208	**LCS**	**Aqueous**	**ICP/MS 03**	**09/09/16**	**09/12/16 12:19**	**160909LA2F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.09873	99	80-120	73-127	
Arsenic	0.1000	0.09678	97	80-120	73-127	
Barium	0.1000	0.09796	98	80-120	73-127	
Beryllium	0.1000	0.09962	100	80-120	73-127	
Cadmium	0.1000	0.09863	99	80-120	73-127	
Chromium	0.1000	0.1033	103	80-120	73-127	
Cobalt	0.1000	0.09722	97	80-120	73-127	
Copper	0.1000	0.09667	97	80-120	73-127	
Lead	0.1000	0.1013	101	80-120	73-127	
Molybdenum	0.1000	0.1049	105	80-120	73-127	
Nickel	0.1000	0.09931	99	80-120	73-127	
Selenium	0.1000	0.09989	100	80-120	73-127	
Silver	0.05000	0.04978	100	80-120	73-127	
Thallium	0.1000	0.09711	97	80-120	73-127	
Vanadium	0.1000	0.09904	99	80-120	73-127	
Zinc	0.1000	0.09950	99	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 14 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7972	**LCS**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:00**	**160912LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01015	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 15 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-822	**LCS**	**Aqueous**	**Mercury 04**	**09/12/16**	**09/12/16 19:00**	**160912LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01015	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-64	**LCS**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 15:29**	**160909L01**
099-02-008-64	**LCSD**	**Aqueous**	**GC/MS SS**	**09/09/16**	**09/12/16 16:01**	**160909L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	83.06	83	84.29	84	45-110	34-121	1	0-11	
Acenaphthylene	100.0	80.90	81	83.10	83	50-105	41-114	3	0-20	
Aniline	100.0	97.74	98	106.4	106	50-130	37-143	8	0-20	
Anthracene	100.0	84.21	84	85.09	85	55-110	46-119	1	0-20	
Azobenzene	100.0	85.04	85	87.03	87	50-130	37-143	2	0-20	
Benzidine	100.0	57.48	57	62.64	63	50-130	37-143	9	0-20	
Benzo (a) Anthracene	100.0	83.20	83	83.85	84	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	87.31	87	88.67	89	55-110	46-119	2	0-20	
Benzo (b) Fluoranthene	100.0	86.10	86	86.76	87	45-120	32-132	1	0-20	
Benzo (g,h,i) Perylene	100.0	99.77	100	102.0	102	40-125	26-139	2	0-20	
Benzo (k) Fluoranthene	100.0	86.03	86	87.29	87	45-125	32-138	1	0-20	
Benzoic Acid	100.0	55.01	55	61.22	61	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	67.95	68	71.38	71	30-110	17-123	5	0-20	
Bis(2-Chloroethoxy) Methane	100.0	78.79	79	79.89	80	45-105	35-115	1	0-20	
Bis(2-Chloroethyl) Ether	100.0	77.37	77	80.39	80	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	76.81	77	79.32	79	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	87.39	87	85.97	86	40-125	26-139	2	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.30	83	84.42	84	50-115	39-126	1	0-20	
Butyl Benzyl Phthalate	100.0	88.79	89	88.09	88	45-115	33-127	1	0-20	
4-Chloro-3-Methylphenol	100.0	77.55	78	79.33	79	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	99.85	100	108.3	108	15-110	0-126	8	0-20	
2-Chloronaphthalene	100.0	80.62	81	81.65	82	50-105	41-114	1	0-20	
2-Chlorophenol	100.0	80.97	81	82.43	82	35-105	23-117	2	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	78.27	78	78.18	78	50-110	40-120	0	0-20	
Chrysene	100.0	83.66	84	84.69	85	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	80.07	80	81.30	81	42-120	29-133	2	0-21	
Di-n-Butyl Phthalate	100.0	82.83	83	82.98	83	55-115	45-125	0	0-20	
Di-n-Octyl Phthalate	100.0	87.47	87	87.97	88	35-135	18-152	1	0-20	
Dibenz (a,h) Anthracene	100.0	90.30	90	91.17	91	40-125	26-139	1	0-20	
Dibenzofuran	100.0	83.85	84	83.79	84	55-105	47-113	0	0-20	
1,2-Dichlorobenzene	100.0	77.01	77	78.43	78	35-100	24-111	2	0-20	
1,3-Dichlorobenzene	100.0	77.01	77	79.87	80	30-100	18-112	4	0-20	
1,4-Dichlorobenzene	100.0	76.80	77	79.15	79	30-100	18-112	3	0-26	
3,3'-Dichlorobenzidine	100.0	128.9	129	135.4	135	20-110	5-125	5	0-20	X
2,4-Dichlorophenol	100.0	79.64	80	81.63	82	50-105	41-114	2	0-20	
Diethyl Phthalate	100.0	78.29	78	78.01	78	40-120	27-133	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 17 of 25

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	78.70	79	80.40	80	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	82.22	82	83.64	84	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	73.84	74	73.47	73	40-130	25-145	0	0-20	
2,4-Dinitrophenol	100.0	57.20	57	56.72	57	15-140	0-161	1	0-20	
2,4-Dinitrotoluene	100.0	81.01	81	79.53	80	50-120	38-132	2	0-36	
2,6-Dinitrotoluene	100.0	81.59	82	82.16	82	50-115	39-126	1	0-20	
Fluoranthene	100.0	82.36	82	83.21	83	55-115	45-125	1	0-20	
Fluorene	100.0	80.87	81	80.49	80	50-110	40-120	0	0-20	
Hexachloro-1,3-Butadiene	100.0	78.52	79	79.52	80	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	82.33	82	83.96	84	50-110	40-120	2	0-20	
Hexachlorocyclopentadiene	100.0	62.84	63	64.23	64	50-130	37-143	2	0-20	
Hexachloroethane	100.0	77.49	77	80.62	81	30-95	19-106	4	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	92.83	93	94.07	94	45-125	32-138	1	0-20	
Isophorone	100.0	76.78	77	78.64	79	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	83.94	84	83.93	84	45-105	35-115	0	0-20	
1-Methylnaphthalene	100.0	73.88	74	73.69	74	45-105	35-115	0	0-20	
2-Methylphenol	100.0	83.61	84	85.89	86	40-110	28-122	3	0-20	
3/4-Methylphenol	200.0	157.9	79	160.2	80	30-110	17-123	1	0-20	
N-Nitroso-di-n-propylamine	100.0	72.51	73	73.80	74	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	76.98	77	79.98	80	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	98.16	98	99.54	100	50-110	40-120	1	0-20	
Naphthalene	100.0	78.58	79	79.68	80	40-100	30-110	1	0-20	
4-Nitroaniline	100.0	77.50	77	77.65	78	35-120	21-134	0	0-20	
3-Nitroaniline	100.0	72.07	72	76.17	76	20-125	2-142	6	0-20	
2-Nitroaniline	100.0	85.24	85	86.73	87	50-115	39-126	2	0-20	
Nitrobenzene	100.0	81.02	81	83.48	83	45-110	34-121	3	0-20	
4-Nitrophenol	100.0	43.65	44	44.21	44	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	79.14	79	80.38	80	40-115	28-128	2	0-20	
Pentachlorophenol	100.0	42.56	43	41.95	42	40-115	28-128	1	0-40	
Phenanthrene	100.0	86.46	86	87.95	88	50-115	39-126	2	0-20	
Phenol	100.0	79.39	79	82.05	82	10-115	0-132	3	0-23	
Pyrene	100.0	87.05	87	86.74	87	50-130	37-143	0	0-20	
Pyridine	100.0	70.18	70	75.87	76	52-115	42-126	8	0-20	
1,2,4-Trichlorobenzene	100.0	78.38	78	81.18	81	35-105	23-117	4	0-21	
2,4,6-Trichlorophenol	100.0	76.18	76	77.69	78	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	79.82	80	80.50	81	50-110	40-120	1	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 18 of 25

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-63	**LCS**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 12:59**	**160912L01**
099-02-008-63	**LCSD**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 13:18**	**160912L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	84.41	84	82.44	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	82.01	82	80.05	80	50-105	41-114	2	0-20	
Aniline	100.0	88.81	89	100.5	100	50-130	37-143	12	0-20	
Anthracene	100.0	87.34	87	84.60	85	55-110	46-119	3	0-20	
Azobenzene	100.0	81.26	81	78.46	78	50-130	37-143	4	0-20	
Benzidine	100.0	67.45	67	74.18	74	50-130	37-143	10	0-20	
Benzo (a) Anthracene	100.0	87.49	87	87.05	87	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	99.88	100	99.54	100	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	101.0	101	97.13	97	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	94.09	94	93.91	94	40-125	26-139	0	0-20	
Benzo (k) Fluoranthene	100.0	91.72	92	93.45	93	45-125	32-138	2	0-20	
Benzoic Acid	100.0	61.78	62	68.95	69	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	80.78	81	76.44	76	30-110	17-123	6	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.31	79	76.82	77	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	80.14	80	77.08	77	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	75.95	76	72.26	72	25-130	8-148	5	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.57	85	83.67	84	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.99	84	81.65	82	50-115	39-126	3	0-20	
Butyl Benzyl Phthalate	100.0	81.52	82	79.72	80	45-115	33-127	2	0-20	
4-Chloro-3-Methylphenol	100.0	85.67	86	83.76	84	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	91.48	91	107.3	107	15-110	0-126	16	0-20	
2-Chloronaphthalene	100.0	81.63	82	79.77	80	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	87.74	88	84.47	84	35-105	23-117	4	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	84.53	85	83.38	83	50-110	40-120	1	0-20	
Chrysene	100.0	86.60	87	85.70	86	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	88.16	88	85.49	85	42-120	29-133	3	0-21	
Di-n-Butyl Phthalate	100.0	85.06	85	82.95	83	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	91.76	92	89.82	90	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	89.61	90	88.84	89	40-125	26-139	1	0-20	
Dibenzofuran	100.0	85.71	86	82.98	83	55-105	47-113	3	0-20	
1,2-Dichlorobenzene	100.0	80.01	80	78.00	78	35-100	24-111	3	0-20	
1,3-Dichlorobenzene	100.0	81.17	81	76.94	77	30-100	18-112	5	0-20	
1,4-Dichlorobenzene	100.0	80.56	81	76.91	77	30-100	18-112	5	0-26	
3,3'-Dichlorobenzidine	100.0	102.2	102	124.9	125	20-110	5-125	20	0-20	ME
2,4-Dichlorophenol	100.0	87.85	88	85.35	85	50-105	41-114	3	0-20	
Diethyl Phthalate	100.0	81.95	82	80.70	81	40-120	27-133	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 20 of 25

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.24	84	82.58	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	87.56	88	85.75	86	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	83.65	84	87.56	88	40-130	25-145	5	0-20	
2,4-Dinitrophenol	100.0	73.92	74	79.86	80	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	90.98	91	90.68	91	50-120	38-132	0	0-36	
2,6-Dinitrotoluene	100.0	88.60	89	88.13	88	50-115	39-126	1	0-20	
Fluoranthene	100.0	89.53	90	87.04	87	55-115	45-125	3	0-20	
Fluorene	100.0	84.02	84	82.69	83	50-110	40-120	2	0-20	
Hexachloro-1,3-Butadiene	100.0	82.49	82	79.15	79	25-105	12-118	4	0-20	
Hexachlorobenzene	100.0	82.54	83	78.84	79	50-110	40-120	5	0-20	
Hexachlorocyclopentadiene	100.0	94.62	95	92.45	92	50-130	37-143	2	0-20	
Hexachloroethane	100.0	83.10	83	77.13	77	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.03	89	88.78	89	45-125	32-138	0	0-20	
Isophorone	100.0	77.59	78	75.82	76	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	85.51	86	83.80	84	45-105	35-115	2	0-20	
1-Methylnaphthalene	100.0	76.36	76	73.77	74	45-105	35-115	3	0-20	
2-Methylphenol	100.0	87.74	88	83.90	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	175.9	88	169.6	85	30-110	17-123	4	0-20	
N-Nitroso-di-n-propylamine	100.0	77.20	77	74.16	74	35-130	19-146	4	0-13	
N-Nitrosodimethylamine	100.0	81.88	82	79.42	79	25-110	11-124	3	0-20	
N-Nitrosodiphenylamine	100.0	96.63	97	94.87	95	50-110	40-120	2	0-20	
Naphthalene	100.0	80.97	81	77.72	78	40-100	30-110	4	0-20	
4-Nitroaniline	100.0	85.13	85	86.87	87	35-120	21-134	2	0-20	
3-Nitroaniline	100.0	72.44	72	76.48	76	20-125	2-142	5	0-20	
2-Nitroaniline	100.0	89.94	90	87.90	88	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.58	85	81.56	82	45-110	34-121	4	0-20	
4-Nitrophenol	100.0	87.15	87	86.02	86	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	91.07	91	88.53	89	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	77.08	77	75.49	75	40-115	28-128	2	0-40	
Phenanthrene	100.0	88.41	88	85.98	86	50-115	39-126	3	0-20	
Phenol	100.0	89.43	89	85.84	86	10-115	0-132	4	0-23	
Pyrene	100.0	84.73	85	82.78	83	50-130	37-143	2	0-20	
Pyridine	100.0	76.05	76	72.82	73	52-115	42-126	4	0-20	
1,2,4-Trichlorobenzene	100.0	83.00	83	79.31	79	35-105	23-117	5	0-21	
2,4,6-Trichlorophenol	100.0	88.85	89	86.73	87	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	91.57	92	89.84	90	50-110	40-120	2	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 1

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0478
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 21 of 25

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 22 of 25

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-316-2957	**LCS**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 14:46**	**160909L040**
099-14-316-2957	**LCSD**	**Aqueous**	**GC/MS Z**	**09/09/16**	**09/09/16 15:14**	**160909L040**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	45.91	92	49.34	99	12-150	0-173	7	0-20	
Benzene	50.00	47.56	95	46.22	92	80-120	73-127	3	0-20	
Bromobenzene	50.00	50.85	102	48.83	98	80-120	73-127	4	0-20	
Bromochloromethane	50.00	47.86	96	48.28	97	80-122	73-129	1	0-20	
Bromodichloromethane	50.00	53.25	107	50.92	102	80-123	73-130	4	0-20	
Bromoform	50.00	50.80	102	51.14	102	74-134	64-144	1	0-20	
Bromomethane	50.00	49.43	99	54.34	109	22-160	0-183	9	0-20	
2-Butanone	50.00	45.25	90	45.99	92	44-164	24-184	2	0-20	
n-Butylbenzene	50.00	54.00	108	52.08	104	80-132	71-141	4	0-20	
sec-Butylbenzene	50.00	52.30	105	51.52	103	80-129	72-137	2	0-20	
tert-Butylbenzene	50.00	51.13	102	50.46	101	80-130	72-138	1	0-20	
Carbon Disulfide	50.00	41.23	82	40.71	81	60-126	49-137	1	0-20	
Carbon Tetrachloride	50.00	50.55	101	49.03	98	64-148	50-162	3	0-20	
Chlorobenzene	50.00	48.18	96	46.60	93	80-120	73-127	3	0-20	
Chloroethane	50.00	50.57	101	49.37	99	63-123	53-133	2	0-20	
Chloroform	50.00	47.77	96	46.82	94	79-121	72-128	2	0-20	
Chloromethane	50.00	43.15	86	41.24	82	43-133	28-148	5	0-20	
2-Chlorotoluene	50.00	49.61	99	47.75	96	80-130	72-138	4	0-20	
4-Chlorotoluene	50.00	50.74	101	49.67	99	80-121	73-128	2	0-20	
Dibromochloromethane	50.00	51.99	104	50.10	100	80-125	72-132	4	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.82	104	52.24	104	68-128	58-138	1	0-20	
1,2-Dibromoethane	50.00	48.54	97	47.29	95	80-120	73-127	3	0-20	
Dibromomethane	50.00	49.94	100	49.17	98	80-121	73-128	2	0-20	
1,2-Dichlorobenzene	50.00	51.58	103	50.44	101	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	50.50	101	50.66	101	80-121	73-128	0	0-20	
1,4-Dichlorobenzene	50.00	49.88	100	48.22	96	80-120	73-127	3	0-20	
Dichlorodifluoromethane	50.00	37.54	75	34.78	70	25-187	0-214	8	0-20	
1,1-Dichloroethane	50.00	47.87	96	47.21	94	75-120	68-128	1	0-20	
1,2-Dichloroethane	50.00	50.92	102	49.22	98	80-123	73-130	3	0-20	
1,1-Dichloroethene	50.00	49.94	100	45.58	91	74-122	66-130	9	0-20	
c-1,2-Dichloroethene	50.00	46.72	93	45.81	92	75-123	67-131	2	0-20	
t-1,2-Dichloroethene	50.00	46.55	93	46.66	93	70-124	61-133	0	0-20	
1,2-Dichloropropane	50.00	51.38	103	49.77	100	80-120	73-127	3	0-20	
1,3-Dichloropropane	50.00	47.54	95	46.28	93	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	54.25	108	51.57	103	49-151	32-168	5	0-20	
1,1-Dichloropropene	50.00	47.30	95	46.47	93	76-120	69-127	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 23 of 25

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	51.79	104	50.30	101	80-124	73-131	3	0-20	
t-1,3-Dichloropropene	50.00	51.73	103	50.91	102	68-128	58-138	2	0-20	
Ethylbenzene	50.00	49.10	98	47.22	94	80-120	73-127	4	0-20	
2-Hexanone	50.00	46.91	94	49.77	100	57-147	42-162	6	0-20	
Isopropylbenzene	50.00	51.00	102	48.98	98	80-127	72-135	4	0-20	
p-Isopropyltoluene	50.00	50.90	102	50.09	100	80-125	72-132	2	0-20	
Methylene Chloride	50.00	45.70	91	45.56	91	74-122	66-130	0	0-20	
4-Methyl-2-Pentanone	50.00	50.41	101	51.93	104	71-125	62-134	3	0-20	
Naphthalene	50.00	51.56	103	52.46	105	54-144	39-159	2	0-20	
n-Propylbenzene	50.00	50.30	101	48.01	96	80-127	72-135	5	0-20	
Styrene	50.00	49.87	100	47.98	96	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.83	102	48.92	98	80-125	72-132	4	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.36	97	49.97	100	78-126	70-134	3	0-20	
Tetrachloroethene	50.00	51.10	102	47.89	96	57-141	43-155	6	0-20	
Toluene	50.00	49.68	99	47.87	96	80-120	73-127	4	0-20	
1,2,3-Trichlorobenzene	50.00	53.33	107	53.80	108	58-154	42-170	1	0-20	
1,2,4-Trichlorobenzene	50.00	55.27	111	55.73	111	57-153	41-169	1	0-20	
1,1,1-Trichloroethane	50.00	48.76	98	47.11	94	76-124	68-132	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.47	93	41.85	84	58-148	43-163	10	0-20	
1,1,2-Trichloroethane	50.00	49.12	98	47.81	96	80-120	73-127	3	0-20	
Trichloroethene	50.00	51.38	103	48.41	97	80-120	73-127	6	0-20	
Trichlorofluoromethane	50.00	48.73	97	46.00	92	64-136	52-148	6	0-20	
1,2,3-Trichloropropane	50.00	49.32	99	48.89	98	74-122	66-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	50.99	102	50.37	101	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	49.81	100	47.70	95	80-126	72-134	4	0-20	
Vinyl Acetate	50.00	17.85	36	18.73	37	34-172	11-195	5	0-20	
Vinyl Chloride	50.00	51.46	103	48.93	98	67-127	57-137	5	0-20	
p/m-Xylene	100.0	98.62	99	94.50	95	80-127	72-135	4	0-20	
o-Xylene	50.00	52.02	104	49.59	99	80-127	72-135	5	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	49.99	100	51.02	102	71-120	63-128	2	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/08/16
Work Order: 16-09-0478
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-316-2956	**LCS**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 15:08**	**160909L031**
099-14-316-2956	**LCSD**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 15:36**	**160909L031**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	58.97	118	56.62	113	12-150	0-173	4	0-20	
Benzene	50.00	47.77	96	48.93	98	80-120	73-127	2	0-20	
Bromobenzene	50.00	51.05	102	52.03	104	80-120	73-127	2	0-20	
Bromochloromethane	50.00	51.04	102	51.73	103	80-122	73-129	1	0-20	
Bromodichloromethane	50.00	48.95	98	50.12	100	80-123	73-130	2	0-20	
Bromoform	50.00	50.65	101	49.50	99	74-134	64-144	2	0-20	
Bromomethane	50.00	45.80	92	47.27	95	22-160	0-183	3	0-20	
2-Butanone	50.00	51.69	103	50.50	101	44-164	24-184	2	0-20	
n-Butylbenzene	50.00	49.73	99	52.62	105	80-132	71-141	6	0-20	
sec-Butylbenzene	50.00	48.73	97	51.20	102	80-129	72-137	5	0-20	
tert-Butylbenzene	50.00	48.96	98	49.88	100	80-130	72-138	2	0-20	
Carbon Disulfide	50.00	49.06	98	50.08	100	60-126	49-137	2	0-20	
Carbon Tetrachloride	50.00	46.57	93	49.20	98	64-148	50-162	5	0-20	
Chlorobenzene	50.00	49.03	98	50.41	101	80-120	73-127	3	0-20	
Chloroethane	50.00	43.37	87	45.26	91	63-123	53-133	4	0-20	
Chloroform	50.00	47.52	95	48.81	98	79-121	72-128	3	0-20	
Chloromethane	50.00	42.04	84	44.43	89	43-133	28-148	6	0-20	
2-Chlorotoluene	50.00	48.28	97	49.94	100	80-130	72-138	3	0-20	
4-Chlorotoluene	50.00	47.30	95	48.79	98	80-121	73-128	3	0-20	
Dibromochloromethane	50.00	50.81	102	51.08	102	80-125	72-132	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	57.05	114	53.57	107	68-128	58-138	6	0-20	
1,2-Dibromoethane	50.00	52.47	105	52.68	105	80-120	73-127	0	0-20	
Dibromomethane	50.00	49.56	99	49.36	99	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	50.00	49.92	100	50.77	102	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	49.22	98	50.44	101	80-121	73-128	2	0-20	
1,4-Dichlorobenzene	50.00	48.89	98	49.89	100	80-120	73-127	2	0-20	
Dichlorodifluoromethane	50.00	34.59	69	40.12	80	25-187	0-214	15	0-20	
1,1-Dichloroethane	50.00	46.62	93	47.91	96	75-120	68-128	3	0-20	
1,2-Dichloroethane	50.00	47.88	96	46.87	94	80-123	73-130	2	0-20	
1,1-Dichloroethene	50.00	48.14	96	49.46	99	74-122	66-130	3	0-20	
c-1,2-Dichloroethene	50.00	48.79	98	49.29	99	75-123	67-131	1	0-20	
t-1,2-Dichloroethene	50.00	45.13	90	48.51	97	70-124	61-133	7	0-20	
1,2-Dichloropropane	50.00	49.42	99	50.89	102	80-120	73-127	3	0-20	
1,3-Dichloropropane	50.00	51.14	102	51.68	103	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	39.08	78	44.37	89	49-151	32-168	13	0-20	
1,1-Dichloropropene	50.00	48.53	97	50.43	101	76-120	69-127	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0478
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 25 of 25

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	47.19	94	49.14	98	80-124	73-131	4	0-20	
t-1,3-Dichloropropene	50.00	50.26	101	51.48	103	68-128	58-138	2	0-20	
Ethylbenzene	50.00	48.50	97	50.62	101	80-120	73-127	4	0-20	
2-Hexanone	50.00	55.12	110	54.60	109	57-147	42-162	1	0-20	
Isopropylbenzene	50.00	48.72	97	50.93	102	80-127	72-135	4	0-20	
p-Isopropyltoluene	50.00	49.45	99	52.01	104	80-125	72-132	5	0-20	
Methylene Chloride	50.00	48.39	97	50.24	100	74-122	66-130	4	0-20	
4-Methyl-2-Pentanone	50.00	55.15	110	53.49	107	71-125	62-134	3	0-20	
Naphthalene	50.00	60.26	121	58.69	117	54-144	39-159	3	0-20	
n-Propylbenzene	50.00	43.90	88	45.41	91	80-127	72-135	3	0-20	
Styrene	50.00	50.41	101	52.06	104	80-120	73-127	3	0-20	
1,1,1,2-Tetrachloroethane	50.00	51.29	103	52.65	105	80-125	72-132	3	0-20	
1,1,2,2-Tetrachloroethane	50.00	54.61	109	53.25	106	78-126	70-134	3	0-20	
Tetrachloroethene	50.00	50.14	100	55.52	111	57-141	43-155	10	0-20	
Toluene	50.00	48.80	98	50.14	100	80-120	73-127	3	0-20	
1,2,3-Trichlorobenzene	50.00	55.50	111	55.89	112	58-154	42-170	1	0-20	
1,2,4-Trichlorobenzene	50.00	54.88	110	56.49	113	57-153	41-169	3	0-20	
1,1,1-Trichloroethane	50.00	46.41	93	49.06	98	76-124	68-132	6	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.19	94	52.07	104	58-148	43-163	10	0-20	
1,1,2-Trichloroethane	50.00	50.62	101	51.08	102	80-120	73-127	1	0-20	
Trichloroethene	50.00	47.97	96	49.15	98	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	44.41	89	49.11	98	64-136	52-148	10	0-20	
1,2,3-Trichloropropane	50.00	52.88	106	52.37	105	74-122	66-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	48.45	97	50.21	100	80-120	73-127	4	0-20	
1,3,5-Trimethylbenzene	50.00	48.48	97	50.81	102	80-126	72-134	5	0-20	
Vinyl Acetate	50.00	19.18	38	18.19	36	34-172	11-195	5	0-20	
Vinyl Chloride	50.00	42.02	84	45.04	90	67-127	57-137	7	0-20	
p/m-Xylene	100.0	93.34	93	96.76	97	80-127	72-135	4	0-20	
o-Xylene	50.00	47.35	95	49.29	99	80-127	72-135	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	47.86	96	50.95	102	71-120	63-128	6	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-09-0478 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 300.0	N/A	1083	IC 15	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	986	GC/MS Z	2
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
EPA 8270C	EPA 3510C	923	GC/MS CCC	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1009	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 8	1
SM 5540C	N/A	990	UV 7	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

Work Order: 16-09-0478 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0478**

DATE: 9-6-16 & 9-7-16

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:
3 Cooler(s) with this COC shipped via FedEx
Analyze sets w/short hold times immediately!

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (~~lab filtered~~ 9-7-16)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)	
1	QCTB-02-090616	9-6-16	—	W	2		X				X											
2	OW8US-090616		1430	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	
3	OW-8US-090616-Dup		1430	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	
4	MW-12-090616		1650	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	
(9/7/16)	~~MW-07-090616~~	~~9-7-16~~	~~0832~~	~~W~~	~~17~~	~~5~~	~~12~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	X 9/7/16
5	MW-07-090716	9-7-16	0832	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	
6	MW-06-090716	9-7-16	1102	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	

Relinquished by: (Signature) Geosyntec	Received by: (Signature/Affiliation) Shipped via FedEx	Date: 9-7-16	Time: 12:00
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 9/8/16	Time: 1030
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

FedEx Express Package US Airbill

FedEx Tracking Number 8088 6106 7235

Form ID No. 0200

Recipient's Copy

Date 9/7/16

Sender's Name Kenjo Agustsson Phone 805 897-3800

Company Geosyntec Consultants

Address 924 Anacapa St. Ste 4A

Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

Your Internal Billing Reference SB0794/02/***/2410

4 Express Package Service * To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other Cooler

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

- [ ] Saturday Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

Signature options:

- [x] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. [ ] Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. [ ]

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages: 1 Total Weight: ____ lbs. Credit Card Auth.: ____

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

Rev. Date 3/15 • Part #167002 • ©2012–2015 FedEx • PRINTED IN U.S.A. SRF

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Eurofins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841-1427

- [ ] Hold Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.
- [ ] Hold Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8088 6106 7235

fedex.com 1.800.GoFedEx 1.800.463.3339

Return to Contents

FedEx Express Package US Airbill

FedEx Tracking Number 8088 6106 7246

Date 9-7-16

Sender's Name Kenjo Agustsson Phone 805 897-380

Company Geosyntec Consultants

Address 924 Anacapa St. Ste 4A

Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

Your Internal Billing Reference SB0794/02/***/2410

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Eurofins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841-1427

- [ ] Hold Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.
- [ ] Hold Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8088 6106 7246

fedex.com 1.800.GoFedEx 1.800.463.3339

FedEx Express Package US Airbill

FedEx Tracking Number 8088 6106

1 From

Date 9/7/16

Sender's Name Kenjo Agustsson Phone 805

Company Geosyntec Consultants

Address 924 Anacapa St. Ste 4A

City Santa Barbara State CA ZIP 93

2 Your Internal Billing Reference SB0794/02/***/24

3 To

Recipient's Name Stephen Nowak Phone 714 8

Company Eurofins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 9284

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0478

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 3

CLIENT: Geosyntec

DATE: 09 / 08 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: LS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☑ DCP 8/5/16	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals	☑	☐	☐
Container(s) for certain analysis free of headspace			
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: 160808B)

Aqueous: ☐ VOA (5) ☑ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGBs (3) ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☑ 500PB ☑ 1AGB ☐ 1AGBna_2 (2) ☑ 1AGBs ☑ 1PB ☐ 1PBna ☑ 250PBnu ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: SR/1053

Reviewed by: JB/SR

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0479

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 3

CLIENT: Geosyntec

DATE: 09 / 08 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: LS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number:** _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGB**s** ☑ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☑ 1AGB**s** ☑ 1PB ☐ 1PB**na** ☑ 250PB$_{Na}$ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: SR

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09-0478

SAMPLE RECEIPT CHECKLIST

COOLER 3 OF 3

CLIENT: Geosyntec

DATE: 09/08/2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.1 °C (w/ CF): 2.1 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: LS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1053

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna_2 ☐ 100PJ ☐ 100PJna_2 ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☑ 250CGBs ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☑ 500PB ☑ 1AGB ☐ 1AGBna_2 ☑ 1AGBs ☑ 1PB ☐ 1PBna ☑ 250PBnn ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na_2** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: SR

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0478

SAMPLE ANOMALY REPORT

DATE: 09 / 08 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☑ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(-7) Received 17 Containers
Labeled as @CEB-02-090616
9/6/16 @ 1800
see container type.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 1053

Reviewed by: _____

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

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140 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
or courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

DATE: 9-6-16 & 9-7-16

PAGE: 1 OF 1

LABORATORY CLIENT:
Geosyntec Consultants

ADDRESS:
924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S) (PRINT): Kenjo Agustsson

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:
3 Cooler(s) with this COC shipped via FedEx
Analyze Set 3 w/short hold times immediately!

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (no filtered)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)				
	QCTB-02-090616	9-6-16	—	W	2		X				X														
	OW8US-090616		1430	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X				
	OW-805-090616-Dup		1430	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X				
	MW-12-090616		1650	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X				
	~~MW-07-090616~~	~~9-7-16~~	~~0832~~	~~W~~	~~17~~	~~5~~	~~12~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	9-7-16				
	MW-07-090716	9-7-16	0832	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X				
	MW-06-090716	9-7-16	1102	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X				
	QCEB-02-090616	9-6-16	1800	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X				

Relinquished by: (Signature) Geosyntec

Relinquished by: (Signature)

Received by: (Signature/Affiliation) Shipped via FedEx Date: 9-7-16 Time: 12:00

Received by: (Signature/Affiliation) Date: Time:

Received by: (Signature/Affiliation) Date: Time:

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09-0590

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/20/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0590

eurofins | Calscience

Work Order Narrative

Work Order: 16-09-0590 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/09/16. They were assigned to Work Order 16-09-0590.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/09/16 10:20
		Number of Containers:	138
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-13-090716	16-09-0590-1	09/07/16 12:31	17	Aqueous
QCTB-03-090716	16-09-0590-2	09/07/16 00:00	2	Aqueous
MW-09-090716	16-09-0590-3	09/07/16 13:50	17	Aqueous
MW-08-090716	16-09-0590-4	09/07/16 14:58	17	Aqueous
QCEB-03-090716	16-09-0590-5	09/07/16 16:00	17	Aqueous
MW-11-090816	16-09-0590-6	09/08/16 08:27	17	Aqueous
MW-05-090816	16-09-0590-7	09/08/16 09:45	17	Aqueous
MW-04-090816	16-09-0590-8	09/08/16 10:55	17	Aqueous
MW-04-090816-DUP	16-09-0590-9	09/08/16 10:55	17	Aqueous

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-13-090716 (16-09-0590-1)						
Calcium	36.9		0.100	mg/L	EPA 200.7	N/A
Magnesium	3.67		0.100	mg/L	EPA 200.7	N/A
Sodium	135		0.500	mg/L	EPA 200.7	N/A
Chloride	170		2.0	mg/L	EPA 300.0	N/A
Sulfate	42		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.00876		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00332		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0111		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00125		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00659		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00642		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00827		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00351		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0106		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00121		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00576		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0118		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	129		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	105		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	475		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.56		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.50		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.5		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.56		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-09-090716 (16-09-0590-3)						
Calcium	119		0.100	mg/L	EPA 200.7	N/A
Magnesium	5.84		0.100	mg/L	EPA 200.7	N/A
Sodium	81.2		0.500	mg/L	EPA 200.7	N/A
Chloride	6.4		1.0	mg/L	EPA 300.0	N/A
Sulfate	350		5.0	mg/L	EPA 300.0	N/A
Antimony	0.00199		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0545		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0438		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00422		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0864		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00253		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00521		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00662		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00202		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0582		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0470		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00459		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0864		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00300		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00572		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00829		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	154		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	154		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	665		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.56		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.37		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.1		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.33		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.85		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-08-090716 (16-09-0590-4)						
Calcium	21.5		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.59		0.100	mg/L	EPA 200.7	N/A
Sodium	30.2		0.500	mg/L	EPA 200.7	N/A
Chloride	4.1		1.0	mg/L	EPA 300.0	N/A
Sulfate	5.2		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0113		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0291		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00684		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0107		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0316		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00769		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00737		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	112		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	112		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	175		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.56		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.19		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.60		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.45		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.56		0.50	mg/L	Total Nitrogen by Calc	N/A
QCEB-03-090716 (16-09-0590-5)						
Calcium	2.35		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.224		0.100	mg/L	EPA 200.7	N/A

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-11-090816 (16-09-0590-6)						
Calcium	66.9		0.100	mg/L	EPA 200.7	N/A
Magnesium	5.89		0.100	mg/L	EPA 200.7	N/A
Sodium	328		0.500	mg/L	EPA 200.7	N/A
Chloride	19		1.0	mg/L	EPA 300.0	N/A
Sulfate	390		5.0	mg/L	EPA 300.0	N/A
Arsenic	0.0560		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0148		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00286		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.0620		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00240		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00261		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00546		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0584		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0179		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00143		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00641		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00112		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0628		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00292		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00511		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0277		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	414		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	414		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1100		10.0	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.98		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.30		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.93		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.22		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.98		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-05-090816 (16-09-0590-7)						
Calcium	19.0		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.47		0.100	mg/L	EPA 200.7	N/A
Sodium	258		0.500	mg/L	EPA 200.7	N/A
Chloride	10		1.0	mg/L	EPA 300.0	N/A
Sulfate	300		5.0	mg/L	EPA 300.0	N/A
Antimony	0.00334		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.191		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00513		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00499		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.124		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00129		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0680		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00334		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.181		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00661		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00107		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00643		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.121		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00152		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0640		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0194		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	266		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	260		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	780		1.00	mg/L	SM 2540 C	N/A
Phosphorus, Total	0.50		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.5		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
Nitrate-Nitrite (as N)	0.14		0.10	mg/L	SM 4500-NO3 E	N/A

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-090816 (16-09-0590-8)						
Calcium	1.93		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.353		0.100	mg/L	EPA 200.7	N/A
Sodium	379		0.500	mg/L	EPA 200.7	N/A
Chloride	6.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	380		10	mg/L	EPA 300.0	N/A
Antimony	0.00297		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.134		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00335		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00504		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.143		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00120		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0296		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00826		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00279		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.125		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00808		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00137		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00601		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00168		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.136		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00136		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0302		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0320		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	337		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	189		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	975		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.91		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.53		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.6		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.43		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.91		0.50	mg/L	Total Nitrogen by Calc	N/A

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0590
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	Received:	09/09/16
Attn:	Kevin Coffman		Page 7 of 7

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-090816-DUP (16-09-0590-9)						
Calcium	1.97		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.370		0.100	mg/L	EPA 200.7	N/A
Sodium	383		0.500	mg/L	EPA 200.7	N/A
Chloride	6.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	400		10	mg/L	EPA 300.0	N/A
Antimony	0.00302		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.134		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00325		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00477		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.147		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00111		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.0305		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00295		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.127		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00863		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00144		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00605		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00170		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.142		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00148		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.0307		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0284		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	327		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	195		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1050		10.0	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.84		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.53		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.6		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.38		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.84		0.50	mg/L	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-Q**	**09/07/16 12:31**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 01:44**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Sulfate	42	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-Q**	**09/07/16 12:31**	**Aqueous**	**IC 10**	**N/A**	**09/12/16 11:58**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	170	2.0	2.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-Q**	**09/07/16 13:50**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 02:03**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	6.4	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-Q**	**09/07/16 13:50**	**Aqueous**	**IC 10**	**N/A**	**09/12/16 12:17**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	350	5.0	5.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-Q**	**09/07/16 14:58**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 02:22**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	4.1	1.0	1.00	
Sulfate	5.2	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-Q**	**09/07/16 16:00**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 02:41**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-Q**	**09/08/16 08:27**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 03:00**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	19	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-Q**	**09/08/16 08:27**	**Aqueous**	**IC 10**	**N/A**	**09/12/16 12:36**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	390	5.0	5.00	

MW-05-090816	16-09-0590-7-Q	09/08/16 09:45	Aqueous	IC 10	N/A	09/10/16 03:18	160909L02

Parameter	Result	RL	DF	Qualifiers
Chloride	10	1.0	1.00	

MW-05-090816	16-09-0590-7-Q	09/08/16 09:45	Aqueous	IC 10	N/A	09/12/16 12:55	160912L01

Parameter	Result	RL	DF	Qualifiers
Sulfate	300	5.0	5.00	

MW-04-090816	16-09-0590-8-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/10/16 03:37	160909L02

Parameter	Result	RL	DF	Qualifiers
Chloride	6.9	1.0	1.00	

MW-04-090816	16-09-0590-8-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/12/16 13:14	160912L01

Parameter	Result	RL	DF	Qualifiers
Sulfate	380	10	10.0	

MW-04-090816-DUP	16-09-0590-9-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/10/16 03:56	160909L02

Parameter	Result	RL	DF	Qualifiers
Chloride	6.9	1.0	1.00	

MW-04-090816-DUP	16-09-0590-9-Q	09/08/16 10:55	Aqueous	IC 10	N/A	09/12/16 13:33	160912L01

Parameter	Result	RL	DF	Qualifiers
Sulfate	400	10	10.0	

Method Blank	099-12-906-6933	N/A	Aqueous	IC 10	N/A	09/09/16 21:34	160909L02

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
		Units:	mg/L
Project: CG Roxane / SB0794			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6932**	**N/A**	**Aqueous**	**IC 10**	**N/A**	**09/12/16 10:49**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-N**	**09/07/16 12:31**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 12:51**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	36.9	0.100	1.00	
Magnesium	3.67	0.100	1.00	
Sodium	135	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-N**	**09/07/16 13:50**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 12:53**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	119	0.100	1.00	
Magnesium	5.84	0.100	1.00	
Sodium	81.2	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-N**	**09/07/16 14:58**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 12:54**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	21.5	0.100	1.00	
Magnesium	1.59	0.100	1.00	
Sodium	30.2	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-N**	**09/07/16 16:00**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 12:55**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	2.35	0.100	1.00	
Magnesium	0.224	0.100	1.00	
Sodium	ND	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-N**	**09/08/16 08:27**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 12:59**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	66.9	0.100	1.00	
Magnesium	5.89	0.100	1.00	
Sodium	328	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-N**	**09/08/16 09:45**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 13:00**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	19.0	0.100	1.00	
Magnesium	1.47	0.100	1.00	
Sodium	258	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-N**	**09/08/16 10:55**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 13:02**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	1.93	0.100	1.00	
Magnesium	0.353	0.100	1.00	
Sodium	379	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-N**	**09/08/16 10:55**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 13:03**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	1.97	0.100	1.00	
Magnesium	0.370	0.100	1.00	
Sodium	383	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6682**	**N/A**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 16:39**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-N**	**09/07/16 12:31**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:15**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00827	0.00100	1.00	
Barium	0.00351	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0106	0.00100	1.00	
Nickel	0.00121	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00576	0.00100	1.00	
Zinc	0.0118	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 2 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-N**	**09/07/16 13:50**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:17**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00202	0.00100	1.00	
Arsenic	0.0582	0.00100	1.00	
Barium	0.0470	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00459	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0864	0.00100	1.00	
Nickel	0.00300	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00572	0.00100	1.00	
Zinc	0.00829	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 3 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-N**	**09/07/16 14:58**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:20**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0107	0.00100	1.00	
Barium	0.0316	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00769	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.00737	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-N**	**09/07/16 16:00**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:51**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-N**	**09/08/16 08:27**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:53**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0584	0.00100	1.00	
Barium	0.0179	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00143	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00641	0.00100	1.00	
Lead	0.00112	0.00100	1.00	
Molybdenum	0.0628	0.00100	1.00	
Nickel	0.00292	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00511	0.00100	1.00	
Zinc	0.0277	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 6 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-N**	**09/08/16 09:45**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:56**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00334	0.00100	1.00	
Arsenic	0.181	0.00100	1.00	
Barium	0.00661	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00107	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00643	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.121	0.00100	1.00	
Nickel	0.00152	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0640	0.00100	1.00	
Zinc	0.0194	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 7 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-N**	**09/08/16 10:55**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:59**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00279	0.00100	1.00	
Arsenic	0.125	0.00100	1.00	
Barium	0.00808	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00137	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00601	0.00100	1.00	
Lead	0.00168	0.00100	1.00	
Molybdenum	0.136	0.00100	1.00	
Nickel	0.00136	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0302	0.00100	1.00	
Zinc	0.0320	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 8 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-N**	**09/08/16 10:55**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 21:01**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00295	0.00100	1.00	
Arsenic	0.127	0.00100	1.00	
Barium	0.00863	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00144	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00605	0.00100	1.00	
Lead	0.00170	0.00100	1.00	
Molybdenum	0.142	0.00100	1.00	
Nickel	0.00148	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0307	0.00100	1.00	
Zinc	0.0284	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5318**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:34**	**160914LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-O**	**09/07/16 12:31**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:49**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.00876	0.00100	1.00	
Barium	0.00332	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0111	0.00100	1.00	
Nickel	0.00125	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00659	0.00100	1.00	
Zinc	0.00642	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-O**	**09/07/16 13:50**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:57**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00199	0.00100	1.00	
Arsenic	0.0545	0.00100	1.00	
Barium	0.0438	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00422	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0864	0.00100	1.00	
Nickel	0.00253	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00521	0.00100	1.00	
Zinc	0.00662	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-O**	**09/07/16 14:58**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 13:18**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0113	0.00100	1.00	
Barium	0.0291	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00684	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-O**	**09/07/16 16:00**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:02**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-O**	**09/08/16 08:27**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:05**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0560	0.00100	1.00	
Barium	0.0148	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00286	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0620	0.00100	1.00	
Nickel	0.00240	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00261	0.00100	1.00	
Zinc	0.00546	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-O**	**09/08/16 09:45**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:07**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00334	0.00100	1.00	
Arsenic	0.191	0.00100	1.00	
Barium	0.00513	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00499	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.124	0.00100	1.00	
Nickel	0.00129	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0680	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-O**	**09/08/16 10:55**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:10**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00297	0.00100	1.00	
Arsenic	0.134	0.00100	1.00	
Barium	0.00335	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00504	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.143	0.00100	1.00	
Nickel	0.00120	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0296	0.00100	1.00	
Zinc	0.00826	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-O**	**09/08/16 10:55**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 20:12**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00302	0.00100	1.00	
Arsenic	0.134	0.00100	1.00	
Barium	0.00325	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00477	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.147	0.00100	1.00	
Nickel	0.00111	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.0305	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1209**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:34**	**160914LA1F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-N**	**09/07/16 12:31**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:28**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-N**	**09/07/16 13:50**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:05**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-N**	**09/07/16 14:58**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:08**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-N**	**09/07/16 16:00**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:10**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-N**	**09/08/16 08:27**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:20**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-N**	**09/08/16 09:45**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:22**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-N**	**09/08/16 10:55**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:24**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-N**	**09/08/16 10:55**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:26**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7973**	**N/A**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:28**	**160914LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-O**	**09/07/16 12:31**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:03**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-O**	**09/07/16 13:50**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:39**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-O**	**09/07/16 14:58**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:33**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-O**	**09/07/16 16:00**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:42**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-O**	**09/08/16 08:27**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:44**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-O**	**09/08/16 09:45**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:46**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-O**	**09/08/16 10:55**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:48**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-O**	**09/08/16 10:55**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 20:01**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
		Units:	mg/L
Project: CG Roxane / SB0794			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-823**	**N/A**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:28**	**160914LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-K**	**09/07/16 12:31**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 13:20**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	69	20-110	
Nitrobenzene-d5	87	40-110	
p-Terphenyl-d14	89	50-135	
Phenol-d6	41	10-115	
2,4,6-Tribromophenol	99	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-K**	**09/07/16 13:50**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 13:38**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.8	1.00	
Acenaphthylene	ND	9.8	1.00	
Aniline	ND	9.8	1.00	
Anthracene	ND	9.8	1.00	
Azobenzene	ND	9.8	1.00	
Benzidine	ND	49	1.00	
Benzo (a) Anthracene	ND	9.8	1.00	
Benzo (a) Pyrene	ND	9.8	1.00	
Benzo (b) Fluoranthene	ND	9.8	1.00	
Benzo (g,h,i) Perylene	ND	9.8	1.00	
Benzo (k) Fluoranthene	ND	9.8	1.00	
Benzoic Acid	ND	49	1.00	
Benzyl Alcohol	ND	9.8	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.8	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.8	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.8	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.8	1.00	
Butyl Benzyl Phthalate	ND	9.8	1.00	
4-Chloro-3-Methylphenol	ND	9.8	1.00	
4-Chloroaniline	ND	9.8	1.00	
2-Chloronaphthalene	ND	9.8	1.00	
2-Chlorophenol	ND	9.8	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.8	1.00	
Chrysene	ND	9.8	1.00	
2,6-Dichlorophenol	ND	9.8	1.00	
Di-n-Butyl Phthalate	ND	9.8	1.00	
Di-n-Octyl Phthalate	ND	9.8	1.00	
Dibenz (a,h) Anthracene	ND	9.8	1.00	
Dibenzofuran	ND	9.8	1.00	
1,2-Dichlorobenzene	ND	9.8	1.00	
1,3-Dichlorobenzene	ND	9.8	1.00	
1,4-Dichlorobenzene	ND	9.8	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	9.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.8	1.00	
Dimethyl Phthalate	ND	9.8	1.00	
2,4-Dimethylphenol	ND	9.8	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.8	1.00	
2,6-Dinitrotoluene	ND	9.8	1.00	
Fluoranthene	ND	9.8	1.00	
Fluorene	ND	9.8	1.00	
Hexachloro-1,3-Butadiene	ND	9.8	1.00	
Hexachlorobenzene	ND	9.8	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	9.8	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.8	1.00	
Isophorone	ND	9.8	1.00	
2-Methylnaphthalene	ND	9.8	1.00	
1-Methylnaphthalene	ND	9.8	1.00	
2-Methylphenol	ND	9.8	1.00	
3/4-Methylphenol	ND	9.8	1.00	
N-Nitroso-di-n-propylamine	ND	9.8	1.00	
N-Nitrosodimethylamine	ND	9.8	1.00	
N-Nitrosodiphenylamine	ND	9.8	1.00	
Naphthalene	ND	9.8	1.00	
4-Nitroaniline	ND	9.8	1.00	
3-Nitroaniline	ND	9.8	1.00	
2-Nitroaniline	ND	9.8	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	9.8	1.00	
2-Nitrophenol	ND	9.8	1.00	
Pentachlorophenol	ND	9.8	1.00	
Phenanthrene	ND	9.8	1.00	
Phenol	ND	9.8	1.00	
Pyrene	ND	9.8	1.00	
Pyridine	ND	9.8	1.00	
1,2,4-Trichlorobenzene	ND	9.8	1.00	
2,4,6-Trichlorophenol	ND	9.8	1.00	
2,4,5-Trichlorophenol	ND	9.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	54	50-110	
2-Fluorophenol	52	20-110	
Nitrobenzene-d5	69	40-110	
p-Terphenyl-d14	71	50-135	
Phenol-d6	31	10-115	
2,4,6-Tribromophenol	79	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-K**	**09/07/16 14:58**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 13:57**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	62	50-110	
2-Fluorophenol	64	20-110	
Nitrobenzene-d5	85	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	38	10-115	
2,4,6-Tribromophenol	100	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-K**	**09/07/16 16:00**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 14:15**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 11 of 27

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 12 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	50-110	
2-Fluorophenol	64	20-110	
Nitrobenzene-d5	88	40-110	
p-Terphenyl-d14	90	50-135	
Phenol-d6	39	10-115	
2,4,6-Tribromophenol	100	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-K**	**09/08/16 08:27**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 14:33**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 15 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	62	50-110	
2-Fluorophenol	54	20-110	
Nitrobenzene-d5	80	40-110	
p-Terphenyl-d14	79	50-135	
Phenol-d6	32	10-115	
2,4,6-Tribromophenol	90	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-K**	**09/08/16 09:45**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 14:51**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 18 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	65	50-110	
2-Fluorophenol	61	20-110	
Nitrobenzene-d5	86	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	98	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-K**	**09/08/16 10:55**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 15:10**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 21 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	69	50-110	
2-Fluorophenol	63	20-110	
Nitrobenzene-d5	91	40-110	
p-Terphenyl-d14	95	50-135	
Phenol-d6	37	10-115	
2,4,6-Tribromophenol	100	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-K**	**09/08/16 10:55**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 15:28**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 24 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	64	50-110	
2-Fluorophenol	62	20-110	
Nitrobenzene-d5	92	40-110	
p-Terphenyl-d14	93	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	97	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-63**	**N/A**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 12:40**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 27 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	98	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	91	10-115	
2,4,6-Tribromophenol	93	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13-090716	**16-09-0590-1-A**	**09/07/16 12:31**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 21:14**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	92	78-126	
1,2-Dichloroethane-d4	102	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-03-090716	**16-09-0590-2-B**	**09/07/16 00:00**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 18:26**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	94	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-090716	**16-09-0590-3-A**	**09/07/16 13:50**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 22:10**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	104	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-090716	**16-09-0590-4-A**	**09/07/16 14:58**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 19:22**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-03-090716	**16-09-0590-5-A**	**09/07/16 16:00**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 18:54**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	96	78-126	
1,2-Dichloroethane-d4	104	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-11-090816	**16-09-0590-6-A**	**09/08/16 08:27**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 21:42**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	104	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-090816	**16-09-0590-7-A**	**09/08/16 09:45**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 19:50**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	102	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816	**16-09-0590-8-A**	**09/08/16 10:55**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 20:18**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	98	78-126	
1,2-Dichloroethane-d4	103	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-090816-DUP	**16-09-0590-9-A**	**09/08/16 10:55**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 20:46**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	104	75-135	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0794			Page 19 of 20

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2965**	**N/A**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 15:07**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	94	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-13-090716	**16-09-0590-1**	**09/07/16 12:31**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	129	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	105	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	475	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.50	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.5	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00	BU	mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.56	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-09-090716	**16-09-0590-3**	**09/07/16 13:50**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	154	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	154	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	665	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.37	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.1	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.33	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00	BU	mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.85	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-08-090716	**16-09-0590-4**	**09/07/16 14:58**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	112	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	112	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	175	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.19	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	0.60	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.45	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.56	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
QCEB-03-090716	**16-09-0590-5**	**09/07/16 16:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-11-090816	**16-09-0590-6**	**09/08/16 08:27**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	414	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	414	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	1100	10.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.98	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.30	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	0.93	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.22	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.98	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-05-090816	**16-09-0590-7**	**09/08/16 09:45**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	266	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	260	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	780	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.50	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.5	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.14	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0590

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-04-090816	**16-09-0590-8**	**09/08/16 10:55**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	337	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	189	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	975	1.00	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.91	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.53	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.6	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.43	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.91	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

MW-04-090816-DUP	**16-09-0590-9**	**09/08/16 10:55**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	327	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	195	5.00	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	1050	10.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	0.84	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	0.53	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	1.6	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.38	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	0.84	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

Method Blank		**N/A**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 300.0
Project: CG Roxane / SB0794		Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-09-090716	**Sample**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 02:03**	**160909S02**
MW-09-090716	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 05:16**	**160909S02**
MW-09-090716	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 05:35**	**160909S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	6.381	50.00	56.08	99	55.94	99	80-120	0	0-20	
Sulfate	424.2	50.00	491.0	134	492.6	137	80-120	0	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-08-090716	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909TPS2**
MW-08-090716	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909TPS2**
MW-08-090716	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909TPS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1948	0.4000	0.5761	95	0.5668	93	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 3 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-08-090716	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G090PO4S2**
MW-08-090716	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G090PO4S2**
MW-08-090716	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G090PO4S2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.5962	1.220	1.763	96	1.734	93	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-05-090816	**Sample**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3S1**
MW-05-090816	**Matrix Spike**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3S1**
MW-05-090816	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.1375	0.5000	0.6208	97	0.6133	95	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0591-3	**Sample**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURS1**
16-09-0591-3	**Matrix Spike**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURS1**
16-09-0591-3	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	1.073	107	1.035	103	70-130	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0748-1	**Sample**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/14/16 13:44**	**160913SA6A**
16-09-0748-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/14/16 13:46**	**160913SA6A**
16-09-0748-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/14/16 13:47**	**160913SA6A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	148.8	0.5000	140.6	4X	140.7	4X	80-120	4X	0-20	Q
Magnesium	63.82	0.5000	61.54	4X	63.33	4X	80-120	4X	0-20	Q
Sodium	855.3	5.000	828.5	4X	838.1	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-13-090716	**Sample**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:49**	**160914SA1**
MW-13-090716	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:39**	**160914SA1**
MW-13-090716	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:41**	**160914SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1016	102	0.1084	108	85-133	7	0-11	
Arsenic	0.008756	0.1000	0.1079	99	0.1159	107	73-127	7	0-11	
Barium	0.003325	0.1000	0.1045	101	0.1058	102	74-128	1	0-10	
Beryllium	ND	0.1000	0.09122	91	0.09983	100	56-122	9	0-11	
Cadmium	ND	0.1000	0.09508	95	0.1013	101	84-114	6	0-8	
Chromium	ND	0.1000	0.1042	104	0.1120	112	73-133	7	0-11	
Cobalt	ND	0.1000	0.09191	92	0.09795	98	79-121	6	0-10	
Copper	ND	0.1000	0.08870	89	0.09516	95	72-108	7	0-10	
Lead	ND	0.1000	0.1073	107	0.1148	115	79-121	7	0-10	
Molybdenum	0.01113	0.1000	0.1233	112	0.1323	121	83-137	7	0-10	
Nickel	0.001250	0.1000	0.09252	91	0.09948	98	68-122	7	0-10	
Selenium	ND	0.1000	0.09075	91	0.09704	97	59-125	7	0-12	
Silver	ND	0.05000	0.05097	102	0.05106	102	68-128	0	0-14	
Thallium	ND	0.1000	0.1019	102	0.1098	110	73-121	7	0-11	
Vanadium	0.006589	0.1000	0.1036	97	0.1117	105	77-137	8	0-15	
Zinc	0.006424	0.1000	0.09971	93	0.09875	92	43-145	1	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 7470A Filt.
	Method:	EPA 7470A
Project: CG Roxane / SB0794		Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-08-090716	**Sample**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:33**	**160914SA2**
MW-08-090716	**Matrix Spike**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:35**	**160914SA2**
MW-08-090716	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:37**	**160914SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01011	101	0.008803	88	55-133	14	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 9 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0657-2	**Sample**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 16:03**	**160910S013**
16-09-0657-2	**Matrix Spike**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 16:34**	**160910S013**
16-09-0657-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 17:02**	**160910S013**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	49.67	99	52.43	105	22-178	5	0-26	
Benzene	ND	50.00	52.36	105	52.75	105	70-130	1	0-20	
Bromobenzene	ND	50.00	54.41	109	54.24	108	70-130	0	0-20	
Bromochloromethane	ND	50.00	53.37	107	54.31	109	70-132	2	0-20	
Bromodichloromethane	ND	50.00	45.64	91	46.07	92	69-135	1	0-20	
Bromoform	ND	50.00	33.91	68	35.40	71	70-133	4	0-20	3
Bromomethane	ND	50.00	47.18	94	48.55	97	11-167	3	0-32	
2-Butanone	ND	50.00	50.06	100	50.83	102	39-159	2	0-21	
n-Butylbenzene	ND	50.00	54.87	110	54.80	110	62-152	0	0-28	
sec-Butylbenzene	ND	50.00	53.63	107	53.50	107	70-143	0	0-24	
tert-Butylbenzene	ND	50.00	54.17	108	54.96	110	70-140	1	0-20	
Carbon Disulfide	ND	50.00	43.98	88	45.97	92	54-138	4	0-23	
Carbon Tetrachloride	ND	50.00	46.99	94	46.51	93	63-153	1	0-22	
Chlorobenzene	ND	50.00	53.60	107	53.44	107	70-130	0	0-20	
Chloroethane	ND	50.00	46.39	93	49.36	99	44-140	6	0-32	
Chloroform	ND	50.00	50.85	102	51.31	103	68-134	1	0-20	
Chloromethane	ND	50.00	43.35	87	48.29	97	20-158	11	0-40	
2-Chlorotoluene	ND	50.00	53.73	107	52.87	106	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	49.84	100	50.59	101	70-130	1	0-20	
Dibromochloromethane	ND	50.00	42.68	85	43.71	87	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	39.80	80	42.12	84	67-133	6	0-20	
1,2-Dibromoethane	ND	50.00	52.02	104	51.40	103	70-130	1	0-20	
Dibromomethane	ND	50.00	49.35	99	49.45	99	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.60	103	51.76	104	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	51.34	103	51.98	104	70-130	1	0-20	
1,4-Dichlorobenzene	ND	50.00	51.34	103	51.56	103	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	44.07	88	45.05	90	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	50.96	102	51.35	103	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	46.53	93	46.63	93	69-135	0	0-20	
1,1-Dichloroethene	ND	50.00	50.51	101	50.77	102	51-153	1	0-21	
c-1,2-Dichloroethene	ND	50.00	51.80	104	52.59	105	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	49.09	98	50.79	102	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	53.47	107	52.78	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	53.29	107	53.54	107	70-130	0	0-20	
2,2-Dichloropropane	ND	50.00	48.14	96	47.52	95	37-169	1	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 10 of 10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	55.53	111	55.79	112	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	46.59	93	46.46	93	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	45.93	92	46.56	93	58-136	1	0-20	
Ethylbenzene	ND	50.00	53.80	108	53.79	108	70-134	0	0-24	
2-Hexanone	ND	50.00	50.73	101	53.67	107	59-149	6	0-20	
Isopropylbenzene	ND	50.00	55.27	111	54.33	109	70-141	2	0-27	
p-Isopropyltoluene	ND	50.00	54.20	108	54.25	108	65-143	0	0-39	
Methylene Chloride	ND	50.00	50.37	101	50.95	102	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	52.80	106	54.41	109	67-139	3	0-20	
Naphthalene	ND	50.00	49.60	99	54.23	108	61-139	9	0-20	
n-Propylbenzene	ND	50.00	48.86	98	48.07	96	70-140	2	0-24	
Styrene	ND	50.00	54.49	109	54.14	108	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.37	99	49.42	99	70-135	0	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.61	105	54.21	108	70-137	3	0-20	
Tetrachloroethene	ND	50.00	47.31	95	46.13	92	33-147	3	0-30	
Toluene	ND	50.00	53.48	107	53.42	107	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	51.48	103	52.85	106	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	53.64	107	54.26	109	60-144	1	0-24	
1,1,1-Trichloroethane	ND	50.00	49.08	98	48.94	98	68-140	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	59.64	119	58.17	116	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	51.78	104	52.58	105	70-130	2	0-20	
Trichloroethene	ND	50.00	50.47	101	50.12	100	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	53.85	108	54.33	109	54-162	1	0-30	
1,2,3-Trichloropropane	ND	50.00	50.43	101	50.10	100	67-130	1	0-20	
1,2,4-Trimethylbenzene	ND	50.00	51.38	103	51.83	104	70-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	55.16	110	54.04	108	70-139	2	0-20	
Vinyl Acetate	ND	50.00	20.41	41	20.38	41	10-190	0	0-40	
Vinyl Chloride	ND	50.00	45.92	92	48.64	97	59-137	6	0-20	
p/m-Xylene	ND	100.0	103.7	104	102.7	103	67-145	1	0-28	
o-Xylene	ND	50.00	51.97	104	51.61	103	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	46.03	92	47.70	95	69-130	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - PDS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
MW-13-090716	**Sample**	**Aqueous**	**ICP/MS 03**	**09/14/16 00:00**	**09/14/16 19:49**	**160914SA1**
MW-13-090716	**PDS**	**Aqueous**	**ICP/MS 03**	**09/14/16 00:00**	**09/14/16 19:44**	**160914SA1**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1019	102	75-125	
Arsenic	0.008756	0.1000	0.1061	97	75-125	
Barium	0.003325	0.1000	0.1032	100	75-125	
Beryllium	ND	0.1000	0.09381	94	75-125	
Cadmium	ND	0.1000	0.09354	94	75-125	
Chromium	ND	0.1000	0.1029	103	75-125	
Cobalt	ND	0.1000	0.09353	94	75-125	
Copper	ND	0.1000	0.09034	90	75-125	
Lead	ND	0.1000	0.1062	106	75-125	
Molybdenum	0.01113	0.1000	0.1236	112	75-125	
Nickel	0.001250	0.1000	0.09287	92	75-125	
Selenium	ND	0.1000	0.09036	90	75-125	
Silver	ND	0.05000	0.05048	101	75-125	
Thallium	ND	0.1000	0.09863	99	75-125	
Vanadium	0.006589	0.1000	0.1040	97	75-125	
Zinc	0.006424	0.1000	0.09516	89	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0478-2	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKD2**
16-09-0478-2	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	82.00	74.00	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0478-2	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910HCOD2**
16-09-0478-2	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910HCOD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	82.00	74.00	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**
16-09-0242-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**
16-09-0242-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0405-4	**Sample**	**Aqueous**	**N/A**	**09/14/16 00:00**	**09/14/16 18:00**	**G0914TDSD2**
16-09-0405-4	**Sample Duplicate**	**Aqueous**	**N/A**	**09/14/16 00:00**	**09/14/16 18:00**	**G0914TDSD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	21600	22300	3	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane / SB0794			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-1085-1	**Sample**	**Aqueous**	**BUR05**	**09/16/16 00:00**	**09/16/16 15:05**	**G0916TKND1**
16-09-1085-1	**Sample Duplicate**	**Aqueous**	**BUR05**	**09/16/16 00:00**	**09/16/16 15:05**	**G0916TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	1.470	1.680	13	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6933	**LCS**	**Aqueous**	**IC 10**	**N/A**	**09/09/16 21:53**	**160909L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.96	100	90-110	
Sulfate	50.00	50.82	102	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 2 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-906-6932	**LCS**	**Aqueous**	**IC 10**	**N/A**	**09/12/16 11:08**	**160912L01**
099-12-906-6932	**LCSD**	**Aqueous**	**IC 10**	**N/A**	**09/12/16 11:40**	**160912L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.00	49.58	99	49.71	99	90-110	0	0-15	
Sulfate	50.00	49.99	100	50.32	101	90-110	1	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 3 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-1057	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKB2**
099-15-859-1057	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**09/10/16 15:15**	**G0910ALKB2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	99.00	99	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 09/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-09-0590
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2320B
Project: CG Roxane / SB0794	Page 4 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-981-182	**LCS**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**
099-15-981-182	**LCSD**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 5 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5243	**LCS**	**Aqueous**	**N/A**	**09/14/16**	**09/14/16 18:00**	**G0914TDSB2**
099-12-180-5243	**LCSD**	**Aqueous**	**N/A**	**09/14/16**	**09/14/16 18:00**	**G0914TDSB2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	80.00	80	85.00	85	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 6 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2791	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909TPL2**
099-05-098-2791	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909TPL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.3949	99	0.4193	105	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 7 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-204	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909PO4L2**
099-14-276-204	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:13**	**G0909PO4L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.208	99	1.283	105	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NH3 B/C
Project: CG Roxane / SB0794			Page 8 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2433	**LCS**	**Aqueous**	**BUR05**	**09/16/16**	**09/16/16 15:46**	**G0916NH3L1**
099-12-814-2433	**LCSD**	**Aqueous**	**BUR05**	**09/16/16**	**09/16/16 15:46**	**G0916NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.368	87	4.452	89	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 9 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-441	**LCS**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3L1**
099-14-282-441	**LCSD**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5171	103	0.5244	105	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 10 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3142	**LCS**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURL1**
099-05-093-3142	**LCSD**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	1.050	105	1.013	101	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 11 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6682	**LCS**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 16:40**	**160913LA6**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5532	111	85-115	
Magnesium	0.5000	0.4828	97	85-115	
Sodium	5.000	4.823	96	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 12 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5318	**LCS**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:36**	**160914LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1022	102	80-120	73-127	
Arsenic	0.1000	0.1015	102	80-120	73-127	
Barium	0.1000	0.09821	98	80-120	73-127	
Beryllium	0.1000	0.1080	108	80-120	73-127	
Cadmium	0.1000	0.1001	100	80-120	73-127	
Chromium	0.1000	0.09956	100	80-120	73-127	
Cobalt	0.1000	0.1037	104	80-120	73-127	
Copper	0.1000	0.1029	103	80-120	73-127	
Lead	0.1000	0.1018	102	80-120	73-127	
Molybdenum	0.1000	0.1016	102	80-120	73-127	
Nickel	0.1000	0.1058	106	80-120	73-127	
Selenium	0.1000	0.1015	101	80-120	73-127	
Silver	0.05000	0.05217	104	80-120	73-127	
Thallium	0.1000	0.09850	99	80-120	73-127	
Vanadium	0.1000	0.1068	107	80-120	73-127	
Zinc	0.1000	0.1022	102	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 13 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1209	**LCS**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/14/16 19:36**	**160914LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1022	102	80-120	73-127	
Arsenic	0.1000	0.1015	102	80-120	73-127	
Barium	0.1000	0.09821	98	80-120	73-127	
Beryllium	0.1000	0.1080	108	80-120	73-127	
Cadmium	0.1000	0.1001	100	80-120	73-127	
Chromium	0.1000	0.09956	100	80-120	73-127	
Cobalt	0.1000	0.1037	104	80-120	73-127	
Copper	0.1000	0.1029	103	80-120	73-127	
Lead	0.1000	0.1018	102	80-120	73-127	
Molybdenum	0.1000	0.1016	102	80-120	73-127	
Nickel	0.1000	0.1058	106	80-120	73-127	
Selenium	0.1000	0.1015	101	80-120	73-127	
Silver	0.05000	0.05217	104	80-120	73-127	
Thallium	0.1000	0.09850	99	80-120	73-127	
Vanadium	0.1000	0.1068	107	80-120	73-127	
Zinc	0.1000	0.1022	102	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 14 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7973	**LCS**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:30**	**160914LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 15 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-823	**LCS**	**Aqueous**	**Mercury 05**	**09/14/16**	**09/14/16 19:30**	**160914LA2F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01011	101	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 16 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-63	**LCS**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 12:59**	**160912L01**
099-02-008-63	**LCSD**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 13:18**	**160912L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	84.41	84	82.44	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	82.01	82	80.05	80	50-105	41-114	2	0-20	
Aniline	100.0	88.81	89	100.5	100	50-130	37-143	12	0-20	
Anthracene	100.0	87.34	87	84.60	85	55-110	46-119	3	0-20	
Azobenzene	100.0	81.26	81	78.46	78	50-130	37-143	4	0-20	
Benzidine	100.0	67.45	67	74.18	74	50-130	37-143	10	0-20	
Benzo (a) Anthracene	100.0	87.49	87	87.05	87	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	99.88	100	99.54	100	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	101.0	101	97.13	97	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	94.09	94	93.91	94	40-125	26-139	0	0-20	
Benzo (k) Fluoranthene	100.0	91.72	92	93.45	93	45-125	32-138	2	0-20	
Benzoic Acid	100.0	61.78	62	68.95	69	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	80.78	81	76.44	76	30-110	17-123	6	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.31	79	76.82	77	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	80.14	80	77.08	77	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	75.95	76	72.26	72	25-130	8-148	5	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.57	85	83.67	84	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.99	84	81.65	82	50-115	39-126	3	0-20	
Butyl Benzyl Phthalate	100.0	81.52	82	79.72	80	45-115	33-127	2	0-20	
4-Chloro-3-Methylphenol	100.0	85.67	86	83.76	84	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	91.48	91	107.3	107	15-110	0-126	16	0-20	
2-Chloronaphthalene	100.0	81.63	82	79.77	80	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	87.74	88	84.47	84	35-105	23-117	4	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	84.53	85	83.38	83	50-110	40-120	1	0-20	
Chrysene	100.0	86.60	87	85.70	86	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	88.16	88	85.49	85	42-120	29-133	3	0-21	
Di-n-Butyl Phthalate	100.0	85.06	85	82.95	83	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	91.76	92	89.82	90	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	89.61	90	88.84	89	40-125	26-139	1	0-20	
Dibenzofuran	100.0	85.71	86	82.98	83	55-105	47-113	3	0-20	
1,2-Dichlorobenzene	100.0	80.01	80	78.00	78	35-100	24-111	3	0-20	
1,3-Dichlorobenzene	100.0	81.17	81	76.94	77	30-100	18-112	5	0-20	
1,4-Dichlorobenzene	100.0	80.56	81	76.91	77	30-100	18-112	5	0-26	
3,3'-Dichlorobenzidine	100.0	102.2	102	124.9	125	20-110	5-125	20	0-20	ME
2,4-Dichlorophenol	100.0	87.85	88	85.35	85	50-105	41-114	3	0-20	
Diethyl Phthalate	100.0	81.95	82	80.70	81	40-120	27-133	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 17 of 20

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.24	84	82.58	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	87.56	88	85.75	86	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	83.65	84	87.56	88	40-130	25-145	5	0-20	
2,4-Dinitrophenol	100.0	73.92	74	79.86	80	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	90.98	91	90.68	91	50-120	38-132	0	0-36	
2,6-Dinitrotoluene	100.0	88.60	89	88.13	88	50-115	39-126	1	0-20	
Fluoranthene	100.0	89.53	90	87.04	87	55-115	45-125	3	0-20	
Fluorene	100.0	84.02	84	82.69	83	50-110	40-120	2	0-20	
Hexachloro-1,3-Butadiene	100.0	82.49	82	79.15	79	25-105	12-118	4	0-20	
Hexachlorobenzene	100.0	82.54	83	78.84	79	50-110	40-120	5	0-20	
Hexachlorocyclopentadiene	100.0	94.62	95	92.45	92	50-130	37-143	2	0-20	
Hexachloroethane	100.0	83.10	83	77.13	77	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.03	89	88.78	89	45-125	32-138	0	0-20	
Isophorone	100.0	77.59	78	75.82	76	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	85.51	86	83.80	84	45-105	35-115	2	0-20	
1-Methylnaphthalene	100.0	76.36	76	73.77	74	45-105	35-115	3	0-20	
2-Methylphenol	100.0	87.74	88	83.90	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	175.9	88	169.6	85	30-110	17-123	4	0-20	
N-Nitroso-di-n-propylamine	100.0	77.20	77	74.16	74	35-130	19-146	4	0-13	
N-Nitrosodimethylamine	100.0	81.88	82	79.42	79	25-110	11-124	3	0-20	
N-Nitrosodiphenylamine	100.0	96.63	97	94.87	95	50-110	40-120	2	0-20	
Naphthalene	100.0	80.97	81	77.72	78	40-100	30-110	4	0-20	
4-Nitroaniline	100.0	85.13	85	86.87	87	35-120	21-134	2	0-20	
3-Nitroaniline	100.0	72.44	72	76.48	76	20-125	2-142	5	0-20	
2-Nitroaniline	100.0	89.94	90	87.90	88	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.58	85	81.56	82	45-110	34-121	4	0-20	
4-Nitrophenol	100.0	87.15	87	86.02	86	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	91.07	91	88.53	89	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	77.08	77	75.49	75	40-115	28-128	2	0-40	
Phenanthrene	100.0	88.41	88	85.98	86	50-115	39-126	3	0-20	
Phenol	100.0	89.43	89	85.84	86	10-115	0-132	4	0-23	
Pyrene	100.0	84.73	85	82.78	83	50-130	37-143	2	0-20	
Pyridine	100.0	76.05	76	72.82	73	52-115	42-126	4	0-20	
1,2,4-Trichlorobenzene	100.0	83.00	83	79.31	79	35-105	23-117	5	0-21	
2,4,6-Trichlorophenol	100.0	88.85	89	86.73	87	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	91.57	92	89.84	90	50-110	40-120	2	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 1

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 18 of 20

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0590
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 19 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2965	**LCS**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 13:42**	**160910L024**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	43.65	87	12-150	0-173	
Benzene	50.00	49.70	99	80-120	73-127	
Bromobenzene	50.00	52.04	104	80-120	73-127	
Bromochloromethane	50.00	51.88	104	80-122	73-129	
Bromodichloromethane	50.00	44.50	89	80-123	73-130	
Bromoform	50.00	35.21	70	74-134	64-144	ME
Bromomethane	50.00	44.53	89	22-160	0-183	
2-Butanone	50.00	46.84	94	44-164	24-184	
n-Butylbenzene	50.00	50.18	100	80-132	71-141	
sec-Butylbenzene	50.00	49.72	99	80-129	72-137	
tert-Butylbenzene	50.00	50.04	100	80-130	72-138	
Carbon Disulfide	50.00	42.78	86	60-126	49-137	
Carbon Tetrachloride	50.00	43.60	87	64-148	50-162	
Chlorobenzene	50.00	51.15	102	80-120	73-127	
Chloroethane	50.00	44.74	89	63-123	53-133	
Chloroform	50.00	48.36	97	79-121	72-128	
Chloromethane	50.00	42.71	85	43-133	28-148	
2-Chlorotoluene	50.00	49.83	100	80-130	72-138	
4-Chlorotoluene	50.00	47.56	95	80-121	73-128	
Dibromochloromethane	50.00	42.48	85	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	40.41	81	68-128	58-138	
1,2-Dibromoethane	50.00	50.88	102	80-120	73-127	
Dibromomethane	50.00	47.60	95	80-121	73-128	
1,2-Dichlorobenzene	50.00	49.18	98	80-120	73-127	
1,3-Dichlorobenzene	50.00	49.36	99	80-121	73-128	
1,4-Dichlorobenzene	50.00	49.05	98	80-120	73-127	
Dichlorodifluoromethane	50.00	35.94	72	25-187	0-214	
1,1-Dichloroethane	50.00	48.07	96	75-120	68-128	
1,2-Dichloroethane	50.00	46.48	93	80-123	73-130	
1,1-Dichloroethene	50.00	46.63	93	74-122	66-130	
c-1,2-Dichloroethene	50.00	49.75	100	75-123	67-131	
t-1,2-Dichloroethene	50.00	48.26	97	70-124	61-133	
1,2-Dichloropropane	50.00	50.96	102	80-120	73-127	
1,3-Dichloropropane	50.00	51.49	103	80-120	73-127	
2,2-Dichloropropane	50.00	42.35	85	49-151	32-168	
1,1-Dichloropropene	50.00	50.86	102	76-120	69-127	
c-1,3-Dichloropropene	50.00	45.33	91	80-124	73-131	
t-1,3-Dichloropropene	50.00	45.75	92	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0590
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 20 of 20

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.77	102	80-120	73-127	
2-Hexanone	50.00	48.67	97	57-147	42-162	
Isopropylbenzene	50.00	50.93	102	80-127	72-135	
p-Isopropyltoluene	50.00	50.59	101	80-125	72-132	
Methylene Chloride	50.00	48.28	97	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.92	100	71-125	62-134	
Naphthalene	50.00	50.68	101	54-144	39-159	
n-Propylbenzene	50.00	45.31	91	80-127	72-135	
Styrene	50.00	51.58	103	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	48.20	96	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.96	100	78-126	70-134	
Tetrachloroethene	50.00	52.04	104	57-141	43-155	
Toluene	50.00	50.57	101	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.82	102	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	51.70	103	57-153	41-169	
1,1,1-Trichloroethane	50.00	46.29	93	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.67	97	58-148	43-163	
1,1,2-Trichloroethane	50.00	50.12	100	80-120	73-127	
Trichloroethene	50.00	48.53	97	80-120	73-127	
Trichlorofluoromethane	50.00	46.32	93	64-136	52-148	
1,2,3-Trichloropropane	50.00	47.68	95	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	48.92	98	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	50.94	102	80-126	72-134	
Vinyl Acetate	50.00	16.94	34	34-172	11-195	
Vinyl Chloride	50.00	43.39	87	67-127	57-137	
p/m-Xylene	100.0	97.48	97	80-127	72-135	
o-Xylene	50.00	49.12	98	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.85	94	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-09-0590 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 05	1
EPA 7470A	EPA 7470A Total	868	Mercury 05	1
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS CCC	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 7	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0590 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0590**

DATE: 9-7-16 to 9-8-16

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:

4 Cooler(s) with this COC shipped via FedEx

Analyze sets w/ short hold times immediately!

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (~~Lab filtered~~)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	MW-13-090716	9-7-16	1231	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
2	QCTB-03-090716	9-7-16	—	W	2						X										
3	MW-09-090716	9-7-16	1350	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
4	MW-08-090716	9-7-16	1458	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
5	QCEB-03-090716	9-7-16	1600	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
6	MW-11-090816	9-8-16	0827	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
7	MW-05-090816	9-8-16	0945	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
8	MW-04-090816	9-8-16	1055	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X
9	MW-04-090816-DUP	9-8-16	1055	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature) Geosyntec	Received by: (Signature/Affiliation) Shipped Via FedEx	Date: 9-8-16	Time: 12:00
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 9/9/16	Time: 1020

06/02/14 Revision

Return to Contents

FedEx Express — Package US Airbill

FedEx Tracking Number 8088 6106 7224

Form ID No. 0200

0590

1 From

Date 9-8-16

Sender's Name Kenji Agustsson Phone 805 897-3800

Company Geosyntec Consultants

Address 924 Anacapa St. Ste 4A

Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

2 Your Internal Billing Reference SB0794/02/~~XXX~~/241C

3 To

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Eurofins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Hold Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.

Hold Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841-1427

8088 6106 7224

4 Express Package Service * To most locations.

Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [X] Other Cooler

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

- [ ] Saturday Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

Signature options:

- [X] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods? One box must be checked.

- [X] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

- [ ] Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. [ ]

- [X] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages ____ Total Weight ____ lbs. Credit Card Auth. ____

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

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FedEx TRK# 0200 8088 6106 7224

FRI - 09 SEP 10:30A
PRIORITY OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 5163113 08SEP16 IYKA 539C1/A053/37E4

FedEx TRK# 0200 8088 6106 7202

FRI - 09 SEP 10:30A
PRIORITY OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 5163113 08SEP16 IYKA 539C1/A053/37E4

FedEx TRK# 0200 8088 6106 7213

FRI - 09 SEP 10:30A
PRIORITY OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 5163113 08SEP16 IYKA 539C1/A053/37E4

FedEx TRK# 0200 8086 3188 4128

FRI - 09 SEP 10:30A
PRIORITY OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 5163113 08SEP16 IYKA 539C1/A053/37E4

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WORK ORDER NUMBER: 16-09-0590

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 4

CLIENT: Geosyntec

DATE: 09 / 09 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: LS

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: LS
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: LCJ

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑ dc 9/9/16	☑	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: 160808B)

Aqueous: ☐ VOA ☑ 5 VOAh ☐ VOA**na**$_2$ ☐ 100PJ ☐ 100PJ**na**$_2$ ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 3 250CGB**s** ☑ 250PB ☑ 250PB**np** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☑ 1AGB ☐ 1AGB**na**$_2$ ☑ 2 1AGB**s** ☑ 1PB ☐ 1PB**na** ☑ 250PBn ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na**$_2$ = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: SR 9/6/2016

Reviewed by: JH 9/6/16

Return to Contents

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WORK ORDER NUMBER: 16-09-0598

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 4

CLIENT: Geosyntec

DATE: 09 / 09 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 1.9 °C (w/ CF): 1.9 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: LS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LOL3

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ VOAh (5) ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGB**s** (3) ☑ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☑ 1AGB**s** (2) ☑ 1PB ☐ 1PB**na** ☑ 250PBn ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: LOL3

Reviewed by: LS

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0540

SAMPLE RECEIPT CHECKLIST

COOLER 3 OF 4

CLIENT: Geosyntec

DATE: 09 / 09 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.1 °C (w/ CF): 2.1 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: LS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1013

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☑ VOAh (5) ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGB**s** (3) ☐ 250PB ☑ 250PB**n** (4) ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☑ 1AGB**s** (2) ☑ 1PB ☐ 1PB**na** ☑ 250PBn ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1013

Reviewed by: LS

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0590

SAMPLE RECEIPT CHECKLIST

COOLER 4 OF 4

CLIENT: Geosyntec

DATE: 09 / 09 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: LS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: LO13

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: 5 **(Trip Blank Lot Number:** _____)

Aqueous: ☐ VOA ☑ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGB**s** ☑ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☑ 1AGB ☐ 1AGB**na$_2$** ☑ 1AGB**s** ☑ 1PB ☐ 1PB**na** ☑ 250PB**n** ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: LO13

Reviewed by: LS

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09-0578

SAMPLE ANOMALY REPORT

DATE: 09 / 09 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☑ Sample container(s) compromised (comment)
  - ☑ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(6) 1 of 5 vials received broken.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: 1013

Reviewed by: 659

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 16-09-0591

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0794

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/21/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane / SB0794
Work Order Number: 16-09-0591

eurofins | Calscience

Work Order Narrative

Work Order: 16-09-0591 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/09/16. They were assigned to Work Order 16-09-0591.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0591
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane / SB0794
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/09/16 10:20
		Number of Containers:	20
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
QCTB-04-090816	16-09-0591-1	09/08/16 00:00	2	Aqueous
MW-03-090816	16-09-0591-2	09/08/16 12:26	1	Aqueous
QCEB-04-090816	16-09-0591-3	09/08/16 13:00	17	Aqueous

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-Q**	**09/08/16 13:00**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 01:25**	**160909L02**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Method Blank	099-12-906-6933	N/A	Aqueous	IC 10	N/A	09/09/16 21:34	160909L02

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-N**	**09/08/16 13:00**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 12:50**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6682**	**N/A**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 16:39**	**160913LA6**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-N**	**09/08/16 13:00**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 11:58**	**160914LA8**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5319**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:18**	**160914LA8**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0794			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-O**	**09/08/16 13:00**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 11:56**	**160914LA8F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1210**	**N/A**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:18**	**160914LA8F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-N**	**09/08/16 13:00**	**Aqueous**	**Mercury 04**	**09/15/16**	**09/15/16 20:07**	**160915LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-7974**	**N/A**	**Aqueous**	**Mercury 04**	**09/15/16**	**09/15/16 19:34**	**160915LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-O**	**09/08/16 13:00**	**Aqueous**	**Mercury 04**	**09/15/16**	**09/15/16 20:14**	**160915LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-825**	**N/A**	**Aqueous**	**Mercury 04**	**09/15/16**	**09/15/16 19:34**	**160915LA2F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-090816	**16-09-0591-2-A**	**09/08/16 12:26**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 15:46**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.5	1.00	
Acenaphthylene	ND	9.5	1.00	
Aniline	ND	9.5	1.00	
Anthracene	ND	9.5	1.00	
Azobenzene	ND	9.5	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.5	1.00	
Benzo (a) Pyrene	ND	9.5	1.00	
Benzo (b) Fluoranthene	ND	9.5	1.00	
Benzo (g,h,i) Perylene	ND	9.5	1.00	
Benzo (k) Fluoranthene	ND	9.5	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.5	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.5	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.5	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.5	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.5	1.00	
Butyl Benzyl Phthalate	ND	9.5	1.00	
4-Chloro-3-Methylphenol	ND	9.5	1.00	
4-Chloroaniline	ND	9.5	1.00	
2-Chloronaphthalene	ND	9.5	1.00	
2-Chlorophenol	ND	9.5	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.5	1.00	
Chrysene	ND	9.5	1.00	
2,6-Dichlorophenol	ND	9.5	1.00	
Di-n-Butyl Phthalate	ND	9.5	1.00	
Di-n-Octyl Phthalate	ND	9.5	1.00	
Dibenz (a,h) Anthracene	ND	9.5	1.00	
Dibenzofuran	ND	9.5	1.00	
1,2-Dichlorobenzene	ND	9.5	1.00	
1,3-Dichlorobenzene	ND	9.5	1.00	
1,4-Dichlorobenzene	ND	9.5	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.5	1.00	
Dimethyl Phthalate	ND	9.5	1.00	
2,4-Dimethylphenol	ND	9.5	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.5	1.00	
2,6-Dinitrotoluene	ND	9.5	1.00	
Fluoranthene	ND	9.5	1.00	
Fluorene	ND	9.5	1.00	
Hexachloro-1,3-Butadiene	ND	9.5	1.00	
Hexachlorobenzene	ND	9.5	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.5	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.5	1.00	
Isophorone	ND	9.5	1.00	
2-Methylnaphthalene	ND	9.5	1.00	
1-Methylnaphthalene	ND	9.5	1.00	
2-Methylphenol	ND	9.5	1.00	
3/4-Methylphenol	ND	9.5	1.00	
N-Nitroso-di-n-propylamine	ND	9.5	1.00	
N-Nitrosodimethylamine	ND	9.5	1.00	
N-Nitrosodiphenylamine	ND	9.5	1.00	
Naphthalene	ND	9.5	1.00	
4-Nitroaniline	ND	9.5	1.00	
3-Nitroaniline	ND	9.5	1.00	
2-Nitroaniline	ND	9.5	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.5	1.00	
2-Nitrophenol	ND	9.5	1.00	
Pentachlorophenol	ND	9.5	1.00	
Phenanthrene	ND	9.5	1.00	
Phenol	ND	9.5	1.00	
Pyrene	ND	9.5	1.00	
Pyridine	ND	9.5	1.00	
1,2,4-Trichlorobenzene	ND	9.5	1.00	
2,4,6-Trichlorophenol	ND	9.5	1.00	
2,4,5-Trichlorophenol	ND	9.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	60	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	83	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	33	10-115	
2,4,6-Tribromophenol	95	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-I**	**09/08/16 13:00**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/13/16 16:05**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	60	50-110	
2-Fluorophenol	60	20-110	
Nitrobenzene-d5	86	40-110	
p-Terphenyl-d14	87	50-135	
Phenol-d6	34	10-115	
2,4,6-Tribromophenol	92	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-63**	**N/A**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 12:40**	**160912L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 8 of 9

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0794		Page 9 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	98	20-110	
Nitrobenzene-d5	89	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	91	10-115	
2,4,6-Tribromophenol	93	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-04-090816	**16-09-0591-1-B**	**09/08/16 00:00**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 15:35**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	95	78-126	
1,2-Dichloroethane-d4	102	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCEB-04-090816	**16-09-0591-3-A**	**09/08/16 13:00**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/10/16 04:12**	**160909L045**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	89	78-126	
1,2-Dichloroethane-d4	99	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2958**	**N/A**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/10/16 00:56**	**160909L045**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane / SB0794		Page 6 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	95	78-126	
1,2-Dichloroethane-d4	98	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2965**	**N/A**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 15:07**	**160910L024**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	94	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
QCEB-04-090816	**16-09-0591-3**	**09/08/16 13:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	09/19/16	Total Nitrogen by Calc

Method Blank						**N/A**		**Aqueous**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	09/10/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	09/14/16	09/14/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	09/16/16	09/16/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	09/09/16	09/09/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	09/16/16	09/16/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	09/13/16	09/13/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	09/09/16	09/09/16	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 300.0
Project: CG Roxane / SB0794		Page 1 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0590-3	**Sample**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 02:03**	**160909S02**
16-09-0590-3	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 05:16**	**160909S02**
16-09-0590-3	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**09/10/16 05:35**	**160909S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	6.381	50.00	56.08	99	55.94	99	80-120	0	0-20	
Sulfate	424.2	50.00	491.0	134	492.6	137	80-120	0	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 2 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0478-3	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**
16-09-0478-3	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**
16-09-0478-3	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.1378	0.4000	0.5032	91	0.5015	91	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0794			Page 3 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0478-3	**Sample**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**
16-09-0478-3	**Matrix Spike**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**
16-09-0478-3	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.4216	1.220	1.540	92	1.535	91	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0590-7	**Sample**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3S1**
16-09-0590-7	**Matrix Spike**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3S1**
16-09-0590-7	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.1375	0.5000	0.6208	97	0.6133	95	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
QCEB-04-090816	**Sample**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURS1**
QCEB-04-090816	**Matrix Spike**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURS1**
QCEB-04-090816	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	1.073	107	1.035	103	70-130	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 200.7
Project: CG Roxane / SB0794		Page 6 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0748-1	**Sample**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/14/16 13:44**	**160913SA6A**
16-09-0748-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/14/16 13:46**	**160913SA6A**
16-09-0748-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/14/16 13:47**	**160913SA6A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	148.8	0.5000	140.6	4X	140.7	4X	80-120	4X	0-20	Q
Magnesium	63.82	0.5000	61.54	4X	63.33	4X	80-120	4X	0-20	Q
Sodium	855.3	5.000	828.5	4X	838.1	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0542-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:46**	**160914SA8**
16-09-0542-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:31**	**160914SA8**
16-09-0542-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:33**	**160914SA8**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.09549	95	0.1027	103	85-133	7	0-11	
Arsenic	ND	0.1000	0.09889	99	0.1070	107	73-127	8	0-11	
Barium	0.06165	0.1000	0.1626	101	0.1609	99	74-128	1	0-10	
Beryllium	ND	0.1000	0.08109	81	0.08812	88	56-122	8	0-11	
Cadmium	0.001161	0.1000	0.09320	92	0.09993	99	84-114	7	0-8	
Chromium	0.001132	0.1000	0.08250	81	0.08737	86	73-133	6	0-11	
Cobalt	ND	0.1000	0.09703	97	0.1043	104	79-121	7	0-10	
Copper	0.004260	0.1000	0.09537	91	0.09999	96	72-108	5	0-10	
Lead	0.001368	0.1000	0.1171	116	0.1253	124	79-121	7	0-10	3
Molybdenum	0.006413	0.1000	0.1287	122	0.1359	130	83-137	5	0-10	
Nickel	0.006338	0.1000	0.1016	95	0.1074	101	68-122	6	0-10	
Selenium	ND	0.1000	0.09360	94	0.1035	103	59-125	10	0-12	
Silver	ND	0.05000	0.05260	105	0.05118	102	68-128	3	0-14	
Thallium	ND	0.1000	0.1107	111	0.1202	120	73-121	8	0-11	
Vanadium	ND	0.1000	0.1044	104	0.1137	114	77-137	9	0-15	
Zinc	0.02181	0.1000	0.1034	82	0.09984	78	43-145	4	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 8 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0445-7	**Sample**	**Sea Water**	**Mercury 04**	**09/15/16**	**09/15/16 19:38**	**160915SA2**
16-09-0445-7	**Matrix Spike**	**Sea Water**	**Mercury 04**	**09/15/16**	**09/15/16 19:40**	**160915SA2**
16-09-0445-7	**Matrix Spike Duplicate**	**Sea Water**	**Mercury 04**	**09/15/16**	**09/15/16 19:47**	**160915SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.007980	80	0.007872	79	55-133	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 9 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0559-1	**Sample**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/10/16 01:24**	**160909S033**
16-09-0559-1	**Matrix Spike**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/10/16 01:52**	**160909S033**
16-09-0559-1	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/10/16 02:20**	**160909S033**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	52.75	105	56.88	114	22-178	8	0-26	
Benzene	100.1	50.00	146.7	93	143.8	87	70-130	2	0-20	
Bromobenzene	ND	50.00	52.19	104	51.89	104	70-130	1	0-20	
Bromochloromethane	ND	50.00	49.31	99	50.27	101	70-132	2	0-20	
Bromodichloromethane	1.721	50.00	46.24	89	46.76	90	69-135	1	0-20	
Bromoform	ND	50.00	38.13	76	38.79	78	70-133	2	0-20	
Bromomethane	ND	50.00	34.99	70	50.36	101	11-167	36	0-32	4
2-Butanone	ND	50.00	48.43	97	49.39	99	39-159	2	0-21	
n-Butylbenzene	ND	50.00	43.23	86	40.35	81	62-152	7	0-28	
sec-Butylbenzene	ND	50.00	48.71	97	45.58	91	70-143	7	0-24	
tert-Butylbenzene	ND	50.00	48.97	98	47.23	94	70-140	4	0-20	
Carbon Disulfide	ND	50.00	44.79	90	45.60	91	54-138	2	0-23	
Carbon Tetrachloride	ND	50.00	44.39	89	42.90	86	63-153	3	0-22	
Chlorobenzene	ND	50.00	51.74	103	51.46	103	70-130	1	0-20	
Chloroethane	ND	50.00	44.73	89	40.03	80	44-140	11	0-32	
Chloroform	1.269	50.00	47.20	92	47.77	93	68-134	1	0-20	
Chloromethane	ND	50.00	42.50	85	43.81	88	20-158	3	0-40	
2-Chlorotoluene	ND	50.00	51.14	102	50.17	100	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	51.20	102	50.49	101	70-130	1	0-20	
Dibromochloromethane	ND	50.00	42.78	86	43.54	87	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	44.76	90	45.70	91	67-133	2	0-20	
1,2-Dibromoethane	ND	50.00	49.74	99	50.37	101	70-130	1	0-20	
Dibromomethane	ND	50.00	47.85	96	48.50	97	70-130	1	0-20	
1,2-Dichlorobenzene	ND	50.00	51.18	102	50.94	102	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	50.72	101	50.12	100	70-130	1	0-20	
1,4-Dichlorobenzene	ND	50.00	51.54	103	49.78	100	70-130	3	0-20	
Dichlorodifluoromethane	ND	50.00	36.79	74	32.86	66	10-190	11	0-40	
1,1-Dichloroethane	ND	50.00	46.35	93	46.37	93	64-130	0	0-20	
1,2-Dichloroethane	2.849	50.00	48.16	91	49.18	93	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	46.08	92	46.03	92	51-153	0	0-21	
c-1,2-Dichloroethene	ND	50.00	47.20	94	48.03	96	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	45.95	92	46.90	94	68-134	2	0-20	
1,2-Dichloropropane	1.123	50.00	51.81	101	51.89	102	70-130	0	0-20	
1,3-Dichloropropane	ND	50.00	49.49	99	50.24	100	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	33.10	66	32.56	65	37-169	2	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 10 of 12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	49.82	100	48.62	97	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	46.02	92	46.05	92	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	45.91	92	46.75	93	58-136	2	0-20	
Ethylbenzene	48.76	50.00	103.2	109	99.42	101	70-134	4	0-24	
2-Hexanone	ND	50.00	52.31	105	52.44	105	59-149	0	0-20	
Isopropylbenzene	1.775	50.00	54.79	106	52.96	102	70-141	3	0-27	
p-Isopropyltoluene	ND	50.00	48.88	98	45.17	90	65-143	8	0-39	
Methylene Chloride	ND	50.00	47.45	95	48.12	96	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	53.95	108	54.61	109	67-139	1	0-20	
Naphthalene	ND	50.00	59.12	118	62.06	124	61-139	5	0-20	
n-Propylbenzene	3.643	50.00	46.50	86	45.62	84	70-140	2	0-24	
Styrene	ND	50.00	51.63	103	51.06	102	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.20	98	48.93	98	70-135	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	36.50	73	35.13	70	70-137	4	0-20	
Tetrachloroethene	ND	50.00	64.50	129	63.65	127	33-147	1	0-30	
Toluene	10.24	50.00	64.97	109	63.16	106	70-130	3	0-20	
1,2,3-Trichlorobenzene	ND	50.00	58.16	116	56.55	113	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	57.61	115	54.58	109	60-144	5	0-24	
1,1,1-Trichloroethane	ND	50.00	45.98	92	45.48	91	68-140	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	49.80	100	44.24	88	21-190	12	0-40	
1,1,2-Trichloroethane	1.399	50.00	48.37	94	48.99	95	70-130	1	0-20	
Trichloroethene	ND	50.00	57.96	116	58.84	118	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	47.35	95	43.36	87	54-162	9	0-30	
1,2,3-Trichloropropane	ND	50.00	48.42	97	48.24	96	67-130	0	0-20	
1,2,4-Trimethylbenzene	6.710	50.00	57.54	102	56.03	99	70-133	3	0-20	
1,3,5-Trimethylbenzene	7.728	50.00	58.73	102	56.98	99	70-139	3	0-20	
Vinyl Acetate	ND	50.00	21.09	42	20.81	42	10-190	1	0-40	
Vinyl Chloride	ND	50.00	45.14	90	44.75	90	59-137	1	0-20	
p/m-Xylene	49.96	100.0	150.5	101	146.1	96	67-145	3	0-28	
o-Xylene	4.003	50.00	54.69	101	53.82	100	70-142	2	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	45.12	90	46.35	93	69-130	3	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 11 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-09-0657-2	**Sample**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 16:03**	**160910S013**
16-09-0657-2	**Matrix Spike**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 16:34**	**160910S013**
16-09-0657-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 17:02**	**160910S013**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	49.67	99	52.43	105	22-178	5	0-26	
Benzene	ND	50.00	52.36	105	52.75	105	70-130	1	0-20	
Bromobenzene	ND	50.00	54.41	109	54.24	108	70-130	0	0-20	
Bromochloromethane	ND	50.00	53.37	107	54.31	109	70-132	2	0-20	
Bromodichloromethane	ND	50.00	45.64	91	46.07	92	69-135	1	0-20	
Bromoform	ND	50.00	33.91	68	35.40	71	70-133	4	0-20	3
Bromomethane	ND	50.00	47.18	94	48.55	97	11-167	3	0-32	
2-Butanone	ND	50.00	50.06	100	50.83	102	39-159	2	0-21	
n-Butylbenzene	ND	50.00	54.87	110	54.80	110	62-152	0	0-28	
sec-Butylbenzene	ND	50.00	53.63	107	53.50	107	70-143	0	0-24	
tert-Butylbenzene	ND	50.00	54.17	108	54.96	110	70-140	1	0-20	
Carbon Disulfide	ND	50.00	43.98	88	45.97	92	54-138	4	0-23	
Carbon Tetrachloride	ND	50.00	46.99	94	46.51	93	63-153	1	0-22	
Chlorobenzene	ND	50.00	53.60	107	53.44	107	70-130	0	0-20	
Chloroethane	ND	50.00	46.39	93	49.36	99	44-140	6	0-32	
Chloroform	ND	50.00	50.85	102	51.31	103	68-134	1	0-20	
Chloromethane	ND	50.00	43.35	87	48.29	97	20-158	11	0-40	
2-Chlorotoluene	ND	50.00	53.73	107	52.87	106	70-137	2	0-20	
4-Chlorotoluene	ND	50.00	49.84	100	50.59	101	70-130	1	0-20	
Dibromochloromethane	ND	50.00	42.68	85	43.71	87	70-133	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	39.80	80	42.12	84	67-133	6	0-20	
1,2-Dibromoethane	ND	50.00	52.02	104	51.40	103	70-130	1	0-20	
Dibromomethane	ND	50.00	49.35	99	49.45	99	70-130	0	0-20	
1,2-Dichlorobenzene	ND	50.00	51.60	103	51.76	104	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	51.34	103	51.98	104	70-130	1	0-20	
1,4-Dichlorobenzene	ND	50.00	51.34	103	51.56	103	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	44.07	88	45.05	90	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	50.96	102	51.35	103	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	46.53	93	46.63	93	69-135	0	0-20	
1,1-Dichloroethene	ND	50.00	50.51	101	50.77	102	51-153	1	0-21	
c-1,2-Dichloroethene	ND	50.00	51.80	104	52.59	105	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	49.09	98	50.79	102	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	53.47	107	52.78	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	53.29	107	53.54	107	70-130	0	0-20	
2,2-Dichloropropane	ND	50.00	48.14	96	47.52	95	37-169	1	0-23	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 12 of 12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	55.53	111	55.79	112	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	46.59	93	46.46	93	67-139	0	0-20	
t-1,3-Dichloropropene	ND	50.00	45.93	92	46.56	93	58-136	1	0-20	
Ethylbenzene	ND	50.00	53.80	108	53.79	108	70-134	0	0-24	
2-Hexanone	ND	50.00	50.73	101	53.67	107	59-149	6	0-20	
Isopropylbenzene	ND	50.00	55.27	111	54.33	109	70-141	2	0-27	
p-Isopropyltoluene	ND	50.00	54.20	108	54.25	108	65-143	0	0-39	
Methylene Chloride	ND	50.00	50.37	101	50.95	102	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	52.80	106	54.41	109	67-139	3	0-20	
Naphthalene	ND	50.00	49.60	99	54.23	108	61-139	9	0-20	
n-Propylbenzene	ND	50.00	48.86	98	48.07	96	70-140	2	0-24	
Styrene	ND	50.00	54.49	109	54.14	108	18-174	1	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.37	99	49.42	99	70-135	0	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.61	105	54.21	108	70-137	3	0-20	
Tetrachloroethene	ND	50.00	47.31	95	46.13	92	33-147	3	0-30	
Toluene	ND	50.00	53.48	107	53.42	107	70-130	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	51.48	103	52.85	106	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	53.64	107	54.26	109	60-144	1	0-24	
1,1,1-Trichloroethane	ND	50.00	49.08	98	48.94	98	68-140	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	59.64	119	58.17	116	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	51.78	104	52.58	105	70-130	2	0-20	
Trichloroethene	ND	50.00	50.47	101	50.12	100	42-156	1	0-20	
Trichlorofluoromethane	ND	50.00	53.85	108	54.33	109	54-162	1	0-30	
1,2,3-Trichloropropane	ND	50.00	50.43	101	50.10	100	67-130	1	0-20	
1,2,4-Trimethylbenzene	ND	50.00	51.38	103	51.83	104	70-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	55.16	110	54.04	108	70-139	2	0-20	
Vinyl Acetate	ND	50.00	20.41	41	20.38	41	10-190	0	0-40	
Vinyl Chloride	ND	50.00	45.92	92	48.64	97	59-137	6	0-20	
p/m-Xylene	ND	100.0	103.7	104	102.7	103	67-145	1	0-28	
o-Xylene	ND	50.00	51.97	104	51.61	103	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	46.03	92	47.70	95	69-130	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - PDS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-09-0542-1	**Sample**	**Aqueous**	**ICP/MS 03**	**09/14/16 00:00**	**09/15/16 14:46**	**160914SA8**
16-09-0542-1	**PDS**	**Aqueous**	**ICP/MS 03**	**09/14/16 00:00**	**09/15/16 14:36**	**160914SA8**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.09945	99	75-125	
Arsenic	ND	0.1000	0.09816	98	75-125	
Barium	0.06165	0.1000	0.1591	97	75-125	
Beryllium	ND	0.1000	0.08277	83	75-125	
Cadmium	0.001161	0.1000	0.09421	93	75-125	
Chromium	0.001132	0.1000	0.08410	83	75-125	
Cobalt	ND	0.1000	0.09899	99	75-125	
Copper	0.004260	0.1000	0.09564	91	75-125	
Lead	0.001368	0.1000	0.1174	116	75-125	
Molybdenum	0.006413	0.1000	0.1277	121	75-125	
Nickel	0.006338	0.1000	0.1012	95	75-125	
Selenium	ND	0.1000	0.09533	95	75-125	
Silver	ND	0.05000	0.05085	102	75-125	
Thallium	ND	0.1000	0.1140	114	75-125	
Vanadium	ND	0.1000	0.1060	106	75-125	
Zinc	0.02181	0.1000	0.1017	80	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**
16-09-0242-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0242-1	**Sample**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**
16-09-0242-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	ND	ND	N/A	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0794			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-0420-8	**Sample**	**Aqueous**	**N/A**	**09/14/16 00:00**	**09/14/16 18:00**	**G0914TDSD3**
16-09-0420-8	**Sample Duplicate**	**Aqueous**	**N/A**	**09/14/16 00:00**	**09/14/16 18:00**	**G0914TDSD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1980	2000	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane / SB0794			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-09-1085-1	**Sample**	**Aqueous**	**BUR05**	**09/16/16 00:00**	**09/16/16 15:05**	**G0916TKND1**
16-09-1085-1	**Sample Duplicate**	**Aqueous**	**BUR05**	**09/16/16 00:00**	**09/16/16 15:05**	**G0916TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	1.470	1.680	13	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0794			Page 1 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6933	**LCS**	**Aqueous**	**IC 10**	**N/A**	**09/09/16 21:53**	**160909L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.96	100	90-110	
Sulfate	50.00	50.82	102	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0794			Page 2 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-981-182	**LCS**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**
099-15-981-182	**LCSD**	**Aqueous**	**PH1/BUR16**	**N/A**	**09/10/16 11:15**	**G0910ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.80	108	10.40	104	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5244	**LCS**	**Aqueous**	**N/A**	**09/14/16**	**09/14/16 18:00**	**G0914TDSB3**
099-12-180-5244	**LCSD**	**Aqueous**	**N/A**	**09/14/16**	**09/14/16 18:00**	**G0914TDSB3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	80.00	80	85.00	85	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 09/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-09-0591
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: CG Roxane / SB0794	Page 4 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2789	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPL1**
099-05-098-2789	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4186	105	0.3950	99	80-120	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 09/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-09-0591
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: CG Roxane / SB0794	Page 5 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-203	**LCS**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4L1**
099-14-276-203	**LCSD**	**Aqueous**	**UV 7**	**09/09/16**	**09/09/16 21:42**	**G0909PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.281	105	1.209	99	80-120	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: N/A
Method: SM 4500-NH3 B/C
Page 6 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2433	**LCS**	**Aqueous**	**BUR05**	**09/16/16**	**09/16/16 15:46**	**G0916NH3L1**
099-12-814-2433	**LCSD**	**Aqueous**	**BUR05**	**09/16/16**	**09/16/16 15:46**	**G0916NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.368	87	4.452	89	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0794			Page 7 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-441	**LCS**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3L1**
099-14-282-441	**LCSD**	**Aqueous**	**UV 7**	**09/13/16**	**09/13/16 18:52**	**G0913NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5171	103	0.5244	105	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0794			Page 8 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3142	**LCS**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURL1**
099-05-093-3142	**LCSD**	**Aqueous**	**UV 8**	**09/09/16**	**09/09/16 14:38**	**G0909SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	1.050	105	1.013	101	80-120	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0794			Page 9 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6682	**LCS**	**Aqueous**	**ICP 7300**	**09/13/16**	**09/15/16 16:40**	**160913LA6**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5532	111	85-115	
Magnesium	0.5000	0.4828	97	85-115	
Sodium	5.000	4.823	96	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 10 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5319	**LCS**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:23**	**160914LA8**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1022	102	80-120	73-127	
Arsenic	0.1000	0.1029	103	80-120	73-127	
Barium	0.1000	0.09782	98	80-120	73-127	
Beryllium	0.1000	0.1015	102	80-120	73-127	
Cadmium	0.1000	0.1033	103	80-120	73-127	
Chromium	0.1000	0.09906	99	80-120	73-127	
Cobalt	0.1000	0.1057	106	80-120	73-127	
Copper	0.1000	0.1101	110	80-120	73-127	
Lead	0.1000	0.1061	106	80-120	73-127	
Molybdenum	0.1000	0.1088	109	80-120	73-127	
Nickel	0.1000	0.1092	109	80-120	73-127	
Selenium	0.1000	0.1034	103	80-120	73-127	
Silver	0.05000	0.05541	111	80-120	73-127	
Thallium	0.1000	0.1010	101	80-120	73-127	
Vanadium	0.1000	0.1044	104	80-120	73-127	
Zinc	0.1000	0.09959	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0794			Page 11 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1210	**LCS**	**Aqueous**	**ICP/MS 03**	**09/14/16**	**09/15/16 14:23**	**160914LA8F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1022	102	80-120	73-127	
Arsenic	0.1000	0.1029	103	80-120	73-127	
Barium	0.1000	0.09782	98	80-120	73-127	
Beryllium	0.1000	0.09193	92	80-120	73-127	
Cadmium	0.1000	0.1033	103	80-120	73-127	
Chromium	0.1000	0.09906	99	80-120	73-127	
Cobalt	0.1000	0.09572	96	80-120	73-127	
Copper	0.1000	0.09969	100	80-120	73-127	
Lead	0.1000	0.1061	106	80-120	73-127	
Molybdenum	0.1000	0.1088	109	80-120	73-127	
Nickel	0.1000	0.09877	99	80-120	73-127	
Selenium	0.1000	0.1034	103	80-120	73-127	
Silver	0.05000	0.05541	111	80-120	73-127	
Thallium	0.1000	0.1010	101	80-120	73-127	
Vanadium	0.1000	0.09453	95	80-120	73-127	
Zinc	0.1000	0.09959	100	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 12 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7974	**LCS**	**Aqueous**	**Mercury 04**	**09/15/16**	**09/15/16 19:36**	**160915LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009122	91	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0794			Page 13 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-825	**LCS**	**Aqueous**	**Mercury 04**	**09/15/16**	**09/15/16 19:36**	**160915LA2F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009122	91	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane / SB0794

Date Received: 09/09/16
Work Order: 16-09-0591
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-63	**LCS**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 12:59**	**160912L01**
099-02-008-63	**LCSD**	**Aqueous**	**GC/MS CCC**	**09/12/16**	**09/12/16 13:18**	**160912L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	84.41	84	82.44	82	45-110	34-121	2	0-11	
Acenaphthylene	100.0	82.01	82	80.05	80	50-105	41-114	2	0-20	
Aniline	100.0	88.81	89	100.5	100	50-130	37-143	12	0-20	
Anthracene	100.0	87.34	87	84.60	85	55-110	46-119	3	0-20	
Azobenzene	100.0	81.26	81	78.46	78	50-130	37-143	4	0-20	
Benzidine	100.0	67.45	67	74.18	74	50-130	37-143	10	0-20	
Benzo (a) Anthracene	100.0	87.49	87	87.05	87	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	99.88	100	99.54	100	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	101.0	101	97.13	97	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	94.09	94	93.91	94	40-125	26-139	0	0-20	
Benzo (k) Fluoranthene	100.0	91.72	92	93.45	93	45-125	32-138	2	0-20	
Benzoic Acid	100.0	61.78	62	68.95	69	50-130	37-143	11	0-20	
Benzyl Alcohol	100.0	80.78	81	76.44	76	30-110	17-123	6	0-20	
Bis(2-Chloroethoxy) Methane	100.0	79.31	79	76.82	77	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	80.14	80	77.08	77	35-110	22-122	4	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	75.95	76	72.26	72	25-130	8-148	5	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	84.57	85	83.67	84	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.99	84	81.65	82	50-115	39-126	3	0-20	
Butyl Benzyl Phthalate	100.0	81.52	82	79.72	80	45-115	33-127	2	0-20	
4-Chloro-3-Methylphenol	100.0	85.67	86	83.76	84	45-110	34-121	2	0-40	
4-Chloroaniline	100.0	91.48	91	107.3	107	15-110	0-126	16	0-20	
2-Chloronaphthalene	100.0	81.63	82	79.77	80	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	87.74	88	84.47	84	35-105	23-117	4	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	84.53	85	83.38	83	50-110	40-120	1	0-20	
Chrysene	100.0	86.60	87	85.70	86	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	88.16	88	85.49	85	42-120	29-133	3	0-21	
Di-n-Butyl Phthalate	100.0	85.06	85	82.95	83	55-115	45-125	3	0-20	
Di-n-Octyl Phthalate	100.0	91.76	92	89.82	90	35-135	18-152	2	0-20	
Dibenz (a,h) Anthracene	100.0	89.61	90	88.84	89	40-125	26-139	1	0-20	
Dibenzofuran	100.0	85.71	86	82.98	83	55-105	47-113	3	0-20	
1,2-Dichlorobenzene	100.0	80.01	80	78.00	78	35-100	24-111	3	0-20	
1,3-Dichlorobenzene	100.0	81.17	81	76.94	77	30-100	18-112	5	0-20	
1,4-Dichlorobenzene	100.0	80.56	81	76.91	77	30-100	18-112	5	0-26	
3,3'-Dichlorobenzidine	100.0	102.2	102	124.9	125	20-110	5-125	20	0-20	ME
2,4-Dichlorophenol	100.0	87.85	88	85.35	85	50-105	41-114	3	0-20	
Diethyl Phthalate	100.0	81.95	82	80.70	81	40-120	27-133	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0794			Page 15 of 20

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.24	84	82.58	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	87.56	88	85.75	86	30-110	17-123	2	0-20	
4,6-Dinitro-2-Methylphenol	100.0	83.65	84	87.56	88	40-130	25-145	5	0-20	
2,4-Dinitrophenol	100.0	73.92	74	79.86	80	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	90.98	91	90.68	91	50-120	38-132	0	0-36	
2,6-Dinitrotoluene	100.0	88.60	89	88.13	88	50-115	39-126	1	0-20	
Fluoranthene	100.0	89.53	90	87.04	87	55-115	45-125	3	0-20	
Fluorene	100.0	84.02	84	82.69	83	50-110	40-120	2	0-20	
Hexachloro-1,3-Butadiene	100.0	82.49	82	79.15	79	25-105	12-118	4	0-20	
Hexachlorobenzene	100.0	82.54	83	78.84	79	50-110	40-120	5	0-20	
Hexachlorocyclopentadiene	100.0	94.62	95	92.45	92	50-130	37-143	2	0-20	
Hexachloroethane	100.0	83.10	83	77.13	77	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.03	89	88.78	89	45-125	32-138	0	0-20	
Isophorone	100.0	77.59	78	75.82	76	50-110	40-120	2	0-20	
2-Methylnaphthalene	100.0	85.51	86	83.80	84	45-105	35-115	2	0-20	
1-Methylnaphthalene	100.0	76.36	76	73.77	74	45-105	35-115	3	0-20	
2-Methylphenol	100.0	87.74	88	83.90	84	40-110	28-122	4	0-20	
3/4-Methylphenol	200.0	175.9	88	169.6	85	30-110	17-123	4	0-20	
N-Nitroso-di-n-propylamine	100.0	77.20	77	74.16	74	35-130	19-146	4	0-13	
N-Nitrosodimethylamine	100.0	81.88	82	79.42	79	25-110	11-124	3	0-20	
N-Nitrosodiphenylamine	100.0	96.63	97	94.87	95	50-110	40-120	2	0-20	
Naphthalene	100.0	80.97	81	77.72	78	40-100	30-110	4	0-20	
4-Nitroaniline	100.0	85.13	85	86.87	87	35-120	21-134	2	0-20	
3-Nitroaniline	100.0	72.44	72	76.48	76	20-125	2-142	5	0-20	
2-Nitroaniline	100.0	89.94	90	87.90	88	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.58	85	81.56	82	45-110	34-121	4	0-20	
4-Nitrophenol	100.0	87.15	87	86.02	86	20-150	0-172	1	0-40	
2-Nitrophenol	100.0	91.07	91	88.53	89	40-115	28-128	3	0-20	
Pentachlorophenol	100.0	77.08	77	75.49	75	40-115	28-128	2	0-40	
Phenanthrene	100.0	88.41	88	85.98	86	50-115	39-126	3	0-20	
Phenol	100.0	89.43	89	85.84	86	10-115	0-132	4	0-23	
Pyrene	100.0	84.73	85	82.78	83	50-130	37-143	2	0-20	
Pyridine	100.0	76.05	76	72.82	73	52-115	42-126	4	0-20	
1,2,4-Trichlorobenzene	100.0	83.00	83	79.31	79	35-105	23-117	5	0-21	
2,4,6-Trichlorophenol	100.0	88.85	89	86.73	87	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	91.57	92	89.84	90	50-110	40-120	2	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 1

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane / SB0794		Page 16 of 20

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 17 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2958	**LCS**	**Aqueous**	**GC/MS XX**	**09/09/16**	**09/09/16 23:32**	**160909L045**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	48.48	97	12-150	0-173	
Benzene	50.00	49.79	100	80-120	73-127	
Bromobenzene	50.00	52.42	105	80-120	73-127	
Bromochloromethane	50.00	51.50	103	80-122	73-129	
Bromodichloromethane	50.00	47.30	95	80-123	73-130	
Bromoform	50.00	40.48	81	74-134	64-144	
Bromomethane	50.00	50.26	101	22-160	0-183	
2-Butanone	50.00	45.80	92	44-164	24-184	
n-Butylbenzene	50.00	51.10	102	80-132	71-141	
sec-Butylbenzene	50.00	50.69	101	80-129	72-137	
tert-Butylbenzene	50.00	49.55	99	80-130	72-138	
Carbon Disulfide	50.00	47.25	95	60-126	49-137	
Carbon Tetrachloride	50.00	46.47	93	64-148	50-162	
Chlorobenzene	50.00	50.88	102	80-120	73-127	
Chloroethane	50.00	46.87	94	63-123	53-133	
Chloroform	50.00	48.55	97	79-121	72-128	
Chloromethane	50.00	44.34	89	43-133	28-148	
2-Chlorotoluene	50.00	50.06	100	80-130	72-138	
4-Chlorotoluene	50.00	48.55	97	80-121	73-128	
Dibromochloromethane	50.00	45.76	92	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	44.29	89	68-128	58-138	
1,2-Dibromoethane	50.00	50.55	101	80-120	73-127	
Dibromomethane	50.00	47.55	95	80-121	73-128	
1,2-Dichlorobenzene	50.00	50.81	102	80-120	73-127	
1,3-Dichlorobenzene	50.00	50.16	100	80-121	73-128	
1,4-Dichlorobenzene	50.00	49.69	99	80-120	73-127	
Dichlorodifluoromethane	50.00	39.29	79	25-187	0-214	
1,1-Dichloroethane	50.00	48.54	97	75-120	68-128	
1,2-Dichloroethane	50.00	46.00	92	80-123	73-130	
1,1-Dichloroethene	50.00	49.16	98	74-122	66-130	
c-1,2-Dichloroethene	50.00	49.57	99	75-123	67-131	
t-1,2-Dichloroethene	50.00	47.54	95	70-124	61-133	
1,2-Dichloropropane	50.00	50.54	101	80-120	73-127	
1,3-Dichloropropane	50.00	50.04	100	80-120	73-127	
2,2-Dichloropropane	50.00	37.35	75	49-151	32-168	
1,1-Dichloropropene	50.00	50.59	101	76-120	69-127	
c-1,3-Dichloropropene	50.00	46.00	92	80-124	73-131	
t-1,3-Dichloropropene	50.00	46.76	94	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 18 of 20

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.95	102	80-120	73-127	
2-Hexanone	50.00	46.68	93	57-147	42-162	
Isopropylbenzene	50.00	51.56	103	80-127	72-135	
p-Isopropyltoluene	50.00	51.55	103	80-125	72-132	
Methylene Chloride	50.00	50.23	100	74-122	66-130	
4-Methyl-2-Pentanone	50.00	48.38	97	71-125	62-134	
Naphthalene	50.00	53.02	106	54-144	39-159	
n-Propylbenzene	50.00	45.53	91	80-127	72-135	
Styrene	50.00	51.83	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	49.57	99	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.32	99	78-126	70-134	
Tetrachloroethene	50.00	60.61	121	57-141	43-155	
Toluene	50.00	51.14	102	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	53.46	107	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	53.75	107	57-153	41-169	
1,1,1-Trichloroethane	50.00	47.69	95	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	51.95	104	58-148	43-163	
1,1,2-Trichloroethane	50.00	49.57	99	80-120	73-127	
Trichloroethene	50.00	49.44	99	80-120	73-127	
Trichlorofluoromethane	50.00	50.11	100	64-136	52-148	
1,2,3-Trichloropropane	50.00	47.85	96	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	49.96	100	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.70	103	80-126	72-134	
Vinyl Acetate	50.00	16.51	33	34-172	11-195	ME
Vinyl Chloride	50.00	46.02	92	67-127	57-137	
p/m-Xylene	100.0	97.76	98	80-127	72-135	
o-Xylene	50.00	49.45	99	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.48	93	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants		Date Received:	09/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-09-0591
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0794			Page 19 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2965	**LCS**	**Aqueous**	**GC/MS XX**	**09/10/16**	**09/10/16 13:42**	**160910L024**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	43.65	87	12-150	0-173	
Benzene	50.00	49.70	99	80-120	73-127	
Bromobenzene	50.00	52.04	104	80-120	73-127	
Bromochloromethane	50.00	51.88	104	80-122	73-129	
Bromodichloromethane	50.00	44.50	89	80-123	73-130	
Bromoform	50.00	35.21	70	74-134	64-144	ME
Bromomethane	50.00	44.53	89	22-160	0-183	
2-Butanone	50.00	46.84	94	44-164	24-184	
n-Butylbenzene	50.00	50.18	100	80-132	71-141	
sec-Butylbenzene	50.00	49.72	99	80-129	72-137	
tert-Butylbenzene	50.00	50.04	100	80-130	72-138	
Carbon Disulfide	50.00	42.78	86	60-126	49-137	
Carbon Tetrachloride	50.00	43.60	87	64-148	50-162	
Chlorobenzene	50.00	51.15	102	80-120	73-127	
Chloroethane	50.00	44.74	89	63-123	53-133	
Chloroform	50.00	48.36	97	79-121	72-128	
Chloromethane	50.00	42.71	85	43-133	28-148	
2-Chlorotoluene	50.00	49.83	100	80-130	72-138	
4-Chlorotoluene	50.00	47.56	95	80-121	73-128	
Dibromochloromethane	50.00	42.48	85	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	40.41	81	68-128	58-138	
1,2-Dibromoethane	50.00	50.88	102	80-120	73-127	
Dibromomethane	50.00	47.60	95	80-121	73-128	
1,2-Dichlorobenzene	50.00	49.18	98	80-120	73-127	
1,3-Dichlorobenzene	50.00	49.36	99	80-121	73-128	
1,4-Dichlorobenzene	50.00	49.05	98	80-120	73-127	
Dichlorodifluoromethane	50.00	35.94	72	25-187	0-214	
1,1-Dichloroethane	50.00	48.07	96	75-120	68-128	
1,2-Dichloroethane	50.00	46.48	93	80-123	73-130	
1,1-Dichloroethene	50.00	46.63	93	74-122	66-130	
c-1,2-Dichloroethene	50.00	49.75	100	75-123	67-131	
t-1,2-Dichloroethene	50.00	48.26	97	70-124	61-133	
1,2-Dichloropropane	50.00	50.96	102	80-120	73-127	
1,3-Dichloropropane	50.00	51.49	103	80-120	73-127	
2,2-Dichloropropane	50.00	42.35	85	49-151	32-168	
1,1-Dichloropropene	50.00	50.86	102	76-120	69-127	
c-1,3-Dichloropropene	50.00	45.33	91	80-124	73-131	
t-1,3-Dichloropropene	50.00	45.75	92	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS

Geosyntec Consultants	Date Received:	09/09/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0591
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane / SB0794		Page 20 of 20

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.77	102	80-120	73-127	
2-Hexanone	50.00	48.67	97	57-147	42-162	
Isopropylbenzene	50.00	50.93	102	80-127	72-135	
p-Isopropyltoluene	50.00	50.59	101	80-125	72-132	
Methylene Chloride	50.00	48.28	97	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.92	100	71-125	62-134	
Naphthalene	50.00	50.68	101	54-144	39-159	
n-Propylbenzene	50.00	45.31	91	80-127	72-135	
Styrene	50.00	51.58	103	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	48.20	96	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.96	100	78-126	70-134	
Tetrachloroethene	50.00	52.04	104	57-141	43-155	
Toluene	50.00	50.57	101	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.82	102	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	51.70	103	57-153	41-169	
1,1,1-Trichloroethane	50.00	46.29	93	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.67	97	58-148	43-163	
1,1,2-Trichloroethane	50.00	50.12	100	80-120	73-127	
Trichloroethene	50.00	48.53	97	80-120	73-127	
Trichlorofluoromethane	50.00	46.32	93	64-136	52-148	
1,2,3-Trichloropropane	50.00	47.68	95	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	48.92	98	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	50.94	102	80-126	72-134	
Vinyl Acetate	50.00	16.94	34	34-172	11-195	
Vinyl Chloride	50.00	43.39	87	67-127	57-137	
p/m-Xylene	100.0	97.48	97	80-127	72-135	
o-Xylene	50.00	49.12	98	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	46.85	94	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-09-0591 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS CCC	1
SM 2320B	N/A	650	PH1/BUR16	1
SM 2540 C	N/A	1050	N/A	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 7	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0591 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-09-0591**

DATE: 9-8-16

PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**

ADDRESS: 924 Anacapa St. Suite 4A

CITY: Santa Barbara STATE: CA ZIP: 93101

TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane

P.O. NO.: SB0794

PROJECT CONTACT: Kevin Coffman

SAMPLER(S): (PRINT) Kenjo Agustsson

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:

1 Cooler(s) with this COC shipped via FedEx

Analyze sets w/ short hold times immediately!

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (~~lab filtered~~)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	QCTB-04-090816	9-8-16	—	W	2		2				X										
2	MW-03-090816	9-8-16	1226	W	1	1															X
3	QCEB-04-090816	9-8-16	1300	W	17	5	12	1	X	X	X	X	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature) Geosyntec	Received by: (Signature/Affiliation) Shipped Via FedEx	Date: 9-8-16	Time: 1315
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 9/9/16	Time: 1020
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

0591

FedEx Express Package US Airbill

FedEx Tracking Number 8088 6106 7198

Form ID No. 0200

1 From

Date

Sender's Name Kenja Agrelsson Phone 805 897-3800

Company ~~924~~ Geosyntec Consultants

Address 924 Anacapa St Ste 4A

Dept./Floor/Suite/Room

City Santa Barbara State CA ZIP 93101

2 Your Internal Billing Reference SB0794/02/~~AA~~/2410

3 To

Recipient's Name Stephen Nowak Phone 714 895-5494

Company Eurofins Calscience

Address 7440 Lincoln Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 92841-1427

☐ Hold Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

☐ Hold Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8088 6106 7198

4 Express Package Service * To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.

☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other Cooler

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☒ No Signature Required — Package may be left without obtaining a signature for delivery.

☐ Direct Signature — Someone at recipient's address may sign for delivery.

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages 1 Total Weight ____ lbs. Credit Card Auth.

*Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

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WORK ORDER NUMBER: 16-09- 0591

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 09 / 09 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 1.9 °C (w/ CF): 1.9 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 15

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 15

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 1013

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: 5 (Trip Blank Lot Number: 160808B)

Aqueous: ☐ VOA ☑ VOAh ☐ VOA**na**$_2$ ☐ 100PJ ☐ 100PJ**na**$_2$ ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB 3 ☑ 250CGB**s** ☑ 250PB ☑ 250PB**n** 2JC 9/9/16 ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☑ 1AGB ☐ 1AGB**na**$_2$ ☑ 1AGB**s** 2 ☐ 1PB ☐ 1PB**na** ☑ 250PBn F ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na**$_2$ = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 876/1013

Reviewed by: 778

Return to Contents

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WORK ORDER NUMBER: 16-10-0502

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 10/13/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: CG Roxane
Work Order Number: 16-10-0502

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Work Order Narrative

Work Order: 16-10-0502 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/07/16. They were assigned to Work Order 16-10-0502.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-10-0502
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	10/07/16 10:00
		Number of Containers:	15
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-10-20161006	16-10-0502-1	10/06/16 10:30	13	Aqueous
QCTB-1-20161006	16-10-0502-2	10/06/16 00:00	2	Aqueous

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-10-0502
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	10/07/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-10-20161006 (16-10-0502-1)						
Calcium	18.3		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.30		0.100	mg/L	EPA 200.7	N/A
Sodium	6.24		0.500	mg/L	EPA 200.7	N/A
Arsenic	0.0113		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00402		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00132		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0107		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0108		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00379		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00121		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00933		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	65.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	65.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	105		1.00	mg/L	SM 2540 C	N/A
Total Kjeldahl Nitrogen	0.63		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.12		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.36		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.25		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	0.63		0.50	mg/L	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-G**	**10/06/16 10:30**	**Aqueous**	**IC 15**	**N/A**	**10/07/16 14:30**	**161007L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-906-6998**	**N/A**	**Aqueous**	**IC 15**	**N/A**	**10/07/16 10:51**	**161007L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-F**	**10/06/16 10:30**	**Aqueous**	**ICP 7300**	**10/07/16**	**10/12/16 10:38**	**161007LA6A**

Parameter	Result	RL	DF	Qualifiers
Calcium	18.3	0.100	1.00	
Magnesium	1.30	0.100	1.00	
Sodium	6.24	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6710**	**N/A**	**Aqueous**	**ICP 7300**	**10/07/16**	**10/12/16 14:12**	**161007LA6A**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3020A Total
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-F**	**10/06/16 10:30**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 22:31**	**161007LA3**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0108	0.00100	1.00	
Barium	0.00379	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00121	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.00933	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5343**	**N/A**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:01**	**161007LA3**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-H**	**10/06/16 10:30**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 22:23**	**161007LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	0.0113	0.00100	1.00	
Barium	0.00402	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00132	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0107	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3005A Filt.
Method: EPA 6020
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1253**	**N/A**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:34**	**161007LA2F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-F**	**10/06/16 10:30**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 16:06**	**161010LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-008-8000**	**N/A**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 14:01**	**161010LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-H**	**10/06/16 10:30**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 20:20**	**161010LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-763-841**	**N/A**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 20:07**	**161010LA3F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-L**	**10/06/16 10:30**	**Aqueous**	**GC/MS CCC**	**10/07/16**	**10/10/16 13:09**	**161007L11A**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.6	1.00	
Acenaphthylene	ND	9.6	1.00	
Aniline	ND	9.6	1.00	
Anthracene	ND	9.6	1.00	
Azobenzene	ND	9.6	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.6	1.00	
Benzo (a) Pyrene	ND	9.6	1.00	
Benzo (b) Fluoranthene	ND	9.6	1.00	
Benzo (g,h,i) Perylene	ND	9.6	1.00	
Benzo (k) Fluoranthene	ND	9.6	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.6	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.6	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.6	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.6	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.6	1.00	
Butyl Benzyl Phthalate	ND	9.6	1.00	
4-Chloro-3-Methylphenol	ND	9.6	1.00	
4-Chloroaniline	ND	9.6	1.00	
2-Chloronaphthalene	ND	9.6	1.00	
2-Chlorophenol	ND	9.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.6	1.00	
Chrysene	ND	9.6	1.00	
2,6-Dichlorophenol	ND	9.6	1.00	
Di-n-Butyl Phthalate	ND	9.6	1.00	
Di-n-Octyl Phthalate	ND	9.6	1.00	
Dibenz (a,h) Anthracene	ND	9.6	1.00	
Dibenzofuran	ND	9.6	1.00	
1,2-Dichlorobenzene	ND	9.6	1.00	
1,3-Dichlorobenzene	ND	9.6	1.00	
1,4-Dichlorobenzene	ND	9.6	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.6	1.00	
Dimethyl Phthalate	ND	9.6	1.00	
2,4-Dimethylphenol	ND	9.6	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.6	1.00	
2,6-Dinitrotoluene	ND	9.6	1.00	
Fluoranthene	ND	9.6	1.00	
Fluorene	ND	9.6	1.00	
Hexachloro-1,3-Butadiene	ND	9.6	1.00	
Hexachlorobenzene	ND	9.6	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.6	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.6	1.00	
Isophorone	ND	9.6	1.00	
2-Methylnaphthalene	ND	9.6	1.00	
1-Methylnaphthalene	ND	9.6	1.00	
2-Methylphenol	ND	9.6	1.00	
3/4-Methylphenol	ND	9.6	1.00	
N-Nitroso-di-n-propylamine	ND	9.6	1.00	
N-Nitrosodimethylamine	ND	9.6	1.00	
N-Nitrosodiphenylamine	ND	9.6	1.00	
Naphthalene	ND	9.6	1.00	
4-Nitroaniline	ND	9.6	1.00	
3-Nitroaniline	ND	9.6	1.00	
2-Nitroaniline	ND	9.6	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.6	1.00	
2-Nitrophenol	ND	9.6	1.00	
Pentachlorophenol	ND	9.6	1.00	
Phenanthrene	ND	9.6	1.00	
Phenol	ND	9.6	1.00	
Pyrene	ND	9.6	1.00	
Pyridine	ND	9.6	1.00	
1,2,4-Trichlorobenzene	ND	9.6	1.00	
2,4,6-Trichlorophenol	ND	9.6	1.00	
2,4,5-Trichlorophenol	ND	9.6	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	10/07/16
924 Anacapa Street, Suite 4A	Work Order:	16-10-0502
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	50-110	
2-Fluorophenol	74	20-110	
Nitrobenzene-d5	68	40-110	
p-Terphenyl-d14	70	50-135	
Phenol-d6	68	10-115	
2,4,6-Tribromophenol	79	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane			Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-66**	**N/A**	**Aqueous**	**GC/MS CCC**	**10/07/16**	**10/10/16 11:35**	**161007L11A**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	10	1.00	
Acenaphthylene	ND	10	1.00	
Aniline	ND	10	1.00	
Anthracene	ND	10	1.00	
Azobenzene	ND	10	1.00	
Benzidine	ND	50	1.00	
Benzo (a) Anthracene	ND	10	1.00	
Benzo (a) Pyrene	ND	10	1.00	
Benzo (b) Fluoranthene	ND	10	1.00	
Benzo (g,h,i) Perylene	ND	10	1.00	
Benzo (k) Fluoranthene	ND	10	1.00	
Benzoic Acid	ND	50	1.00	
Benzyl Alcohol	ND	10	1.00	
Bis(2-Chloroethoxy) Methane	ND	10	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	10	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	10	1.00	
4-Bromophenyl-Phenyl Ether	ND	10	1.00	
Butyl Benzyl Phthalate	ND	10	1.00	
4-Chloro-3-Methylphenol	ND	10	1.00	
4-Chloroaniline	ND	10	1.00	
2-Chloronaphthalene	ND	10	1.00	
2-Chlorophenol	ND	10	1.00	
4-Chlorophenyl-Phenyl Ether	ND	10	1.00	
Chrysene	ND	10	1.00	
2,6-Dichlorophenol	ND	10	1.00	
Di-n-Butyl Phthalate	ND	10	1.00	
Di-n-Octyl Phthalate	ND	10	1.00	
Dibenz (a,h) Anthracene	ND	10	1.00	
Dibenzofuran	ND	10	1.00	
1,2-Dichlorobenzene	ND	10	1.00	
1,3-Dichlorobenzene	ND	10	1.00	
1,4-Dichlorobenzene	ND	10	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	10/07/16
924 Anacapa Street, Suite 4A	Work Order:	16-10-0502
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	50-110	
2-Fluorophenol	75	20-110	
Nitrobenzene-d5	67	40-110	
p-Terphenyl-d14	66	50-135	
Phenol-d6	68	10-115	
2,4,6-Tribromophenol	77	40-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-10-20161006	**16-10-0502-1-A**	**10/06/16 10:30**	**Aqueous**	**GC/MS RR**	**10/07/16**	**10/07/16 22:40**	**161007L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	118	78-126	
1,2-Dichloroethane-d4	110	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: CG Roxane

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-1-20161006	**16-10-0502-2-A**	**10/06/16 00:00**	**Aqueous**	**GC/MS RR**	**10/07/16**	**10/07/16 22:08**	**161007L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	115	78-126	
1,2-Dichloroethane-d4	107	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane			Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-3037**	**N/A**	**Aqueous**	**GC/MS RR**	**10/07/16**	**10/07/16 20:01**	**161007L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	10/07/16
924 Anacapa Street, Suite 4A	Work Order:	16-10-0502
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: CG Roxane		Page 6 of 6

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	115	78-126	
1,2-Dichloroethane-d4	110	75-135	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177
Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-10-20161006	**16-10-0502-1**	**10/06/16 10:30**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	65.0	1.00	1.00		mg/L	N/A	10/07/16	SM 2320B
Bicarbonate (as CaCO3)	65.0	1.00	1.00		mg/L	N/A	10/07/16	SM 2320B
Solids, Total Dissolved	105	1.00	1.00		mg/L	10/08/16	10/08/16	SM 2540 C
Total Kjeldahl Nitrogen	0.63	0.50	1.00		mg/L	10/11/16	10/11/16	SM 4500 N Org B
Phosphorus, Total	0.12	0.10	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Total Phosphate	0.36	0.31	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Ammonia (as N)	0.25	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 5540C
Total Nitrogen	0.63	0.50	1.00		mg/L	N/A	10/12/16	Total Nitrogen by Calc

Method Blank						**N/A**		**Aqueous**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	10/07/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	10/07/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	10/08/16	10/08/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	10/11/16	10/11/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	10/08/16	10/08/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	10/07/16	10/07/16	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-10-20161006	**Sample**	**Aqueous**	**IC 15**	**N/A**	**10/07/16 14:30**	**161007S01**
MW-10-20161006	**Matrix Spike**	**Aqueous**	**IC 15**	**N/A**	**10/07/16 15:39**	**161007S01**
MW-10-20161006	**Matrix Spike Duplicate**	**Aqueous**	**IC 15**	**N/A**	**10/07/16 15:57**	**161007S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	ND	50.00	53.00	106	52.95	106	80-120	0	0-20	
Sulfate	ND	50.00	52.72	105	52.70	105	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane			Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0321-1	**Sample**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008TPS2**
16-10-0321-1	**Matrix Spike**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008TPS2**
16-10-0321-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008TPS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	ND	0.4000	0.4417	110	0.4346	109	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane			Page 3 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-10-20161006	**Sample**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008PO4S2**
MW-10-20161006	**Matrix Spike**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008PO4S2**
MW-10-20161006	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008PO4S2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.3649	1.220	1.423	87	1.425	87	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane			Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0321-2	**Sample**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:55**	**G1007NO3S1**
16-10-0321-2	**Matrix Spike**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:55**	**G1007NO3S1**
16-10-0321-2	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:55**	**G1007NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5838	117	0.5869	117	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: SM 5540C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0430-1	**Sample**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:02**	**G1007SURS1**
16-10-0430-1	**Matrix Spike**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:02**	**G1007SURS1**
16-10-0430-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:02**	**G1007SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	0.1085	1.000	1.004	90	1.025	92	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane			Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0394-1	**Sample**	**Aqueous**	**ICP 7300**	**10/07/16**	**10/10/16 13:33**	**161007SA6**
16-10-0394-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**10/07/16**	**10/10/16 13:40**	**161007SA6**
16-10-0394-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**10/07/16**	**10/10/16 13:41**	**161007SA6**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	44.87	0.5000	49.08	4X	49.68	4X	80-120	4X	0-20	Q
Magnesium	21.81	0.5000	23.00	4X	22.87	4X	80-120	4X	0-20	Q
Sodium	421.6	5.000	455.2	4X	469.7	4X	80-120	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0463-1	**Sample**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:27**	**161007SA3**
16-10-0463-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:17**	**161007SA3**
16-10-0463-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:19**	**161007SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1007	101	0.1014	101	85-133	1	0-11	
Arsenic	0.001544	0.1000	0.1002	99	0.1014	100	73-127	1	0-11	
Barium	0.02845	0.1000	0.1355	107	0.1306	102	74-128	4	0-10	
Beryllium	ND	0.1000	0.09618	96	0.09570	96	56-122	1	0-11	
Cadmium	ND	0.1000	0.09413	94	0.09584	96	84-114	2	0-8	
Chromium	ND	0.1000	0.08965	90	0.08747	87	73-133	2	0-11	
Cobalt	ND	0.1000	0.09477	95	0.09387	94	79-121	1	0-10	
Copper	0.003237	0.1000	0.09029	87	0.08894	86	72-108	1	0-10	
Lead	ND	0.1000	0.1068	107	0.1088	109	79-121	2	0-10	
Molybdenum	0.1046	0.1000	0.2191	115	0.2178	113	83-137	1	0-10	
Nickel	0.006580	0.1000	0.09707	90	0.09631	90	68-122	1	0-10	
Selenium	0.001004	0.1000	0.1052	104	0.1004	99	59-125	5	0-12	
Silver	ND	0.05000	0.04943	99	0.04754	95	68-128	4	0-14	
Thallium	ND	0.1000	0.1040	104	0.1044	104	73-121	0	0-11	
Vanadium	ND	0.1000	0.1014	101	0.1002	100	77-137	1	0-15	
Zinc	0.01077	0.1000	0.09018	79	0.09065	80	43-145	1	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane			Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-10-20161006	**Sample**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 22:23**	**161007SA2**
MW-10-20161006	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 22:13**	**161007SA2**
MW-10-20161006	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 22:16**	**161007SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.09718	97	0.09489	95	85-133	2	0-11	
Arsenic	0.01128	0.1000	0.1068	95	0.1046	93	73-127	2	0-11	
Barium	0.004019	0.1000	0.09716	93	0.09724	93	74-128	0	0-10	
Beryllium	ND	0.1000	0.09833	98	0.09486	95	56-122	4	0-11	
Cadmium	ND	0.1000	0.09668	97	0.09556	96	84-114	1	0-8	
Chromium	ND	0.1000	0.1056	106	0.1021	102	73-133	3	0-11	
Cobalt	ND	0.1000	0.09738	97	0.09546	95	79-121	2	0-10	
Copper	ND	0.1000	0.09618	96	0.09337	93	72-108	3	0-10	
Lead	ND	0.1000	0.1031	103	0.09975	100	79-121	3	0-10	
Molybdenum	0.001325	0.1000	0.1107	109	0.1115	110	83-137	1	0-10	
Nickel	ND	0.1000	0.09846	98	0.09407	94	68-122	5	0-10	
Selenium	ND	0.1000	0.09364	94	0.09078	91	59-125	3	0-12	
Silver	ND	0.05000	0.04988	100	0.04909	98	68-128	2	0-14	
Thallium	ND	0.1000	0.09822	98	0.09603	96	73-121	2	0-11	
Vanadium	ND	0.1000	0.09988	100	0.09488	95	77-137	5	0-15	
Zinc	0.01066	0.1000	0.09412	83	0.09712	86	43-145	3	0-39	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane			Page 9 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0645-1	**Sample**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 14:06**	**161010SA2**
16-10-0645-1	**Matrix Spike**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 14:08**	**161010SA2**
16-10-0645-1	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 14:14**	**161010SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01063	106	0.01054	105	55-133	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane			Page 10 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-10-0571-2	**Sample**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 20:11**	**161010SA3**
16-10-0571-2	**Matrix Spike**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 20:13**	**161010SA3**
16-10-0571-2	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 20:16**	**161010SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.007058	71	0.007971	80	55-133	12	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane			Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-10-0463-1	**Sample**	**Aqueous**	**ICP/MS 03**	**10/07/16 00:00**	**10/10/16 21:27**	**161007SA3**
16-10-0463-1	**PDS**	**Aqueous**	**ICP/MS 03**	**10/07/16 00:00**	**10/10/16 21:22**	**161007SA3**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1007	101	75-125	
Arsenic	0.001544	0.1000	0.09829	97	75-125	
Barium	0.02845	0.1000	0.1293	101	75-125	
Beryllium	ND	0.1000	0.09649	96	75-125	
Cadmium	ND	0.1000	0.09434	94	75-125	
Chromium	ND	0.1000	0.08651	87	75-125	
Cobalt	ND	0.1000	0.09370	94	75-125	
Copper	0.003237	0.1000	0.08825	85	75-125	
Lead	ND	0.1000	0.1088	109	75-125	
Molybdenum	0.1046	0.1000	0.2176	113	75-125	
Nickel	0.006580	0.1000	0.09572	89	75-125	
Selenium	0.001004	0.1000	0.1012	100	75-125	
Silver	ND	0.05000	0.04769	95	75-125	
Thallium	ND	0.1000	0.1042	104	75-125	
Vanadium	ND	0.1000	0.09978	100	75-125	
Zinc	0.01077	0.1000	0.09665	86	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane			Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
MW-10-20161006	**Sample**	**Aqueous**	**ICP/MS 03**	**10/07/16 00:00**	**10/10/16 22:23**	**161007SA2**
MW-10-20161006	**PDS**	**Aqueous**	**ICP/MS 03**	**10/07/16 00:00**	**10/10/16 22:18**	**161007SA2**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.09870	99	75-125	
Arsenic	0.01128	0.1000	0.1073	96	75-125	
Barium	0.004019	0.1000	0.1004	96	75-125	
Beryllium	ND	0.1000	0.09632	96	75-125	
Cadmium	ND	0.1000	0.09651	97	75-125	
Chromium	ND	0.1000	0.1031	103	75-125	
Cobalt	ND	0.1000	0.09652	97	75-125	
Copper	ND	0.1000	0.09393	94	75-125	
Lead	ND	0.1000	0.1018	102	75-125	
Molybdenum	0.001325	0.1000	0.1161	115	75-125	
Nickel	ND	0.1000	0.09558	96	75-125	
Selenium	ND	0.1000	0.09083	91	75-125	
Silver	ND	0.05000	0.05140	103	75-125	
Thallium	ND	0.1000	0.09815	98	75-125	
Vanadium	ND	0.1000	0.09802	98	75-125	
Zinc	0.01066	0.1000	0.1021	91	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0362-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/07/16 17:35**	**G1007ALKD1**
16-10-0362-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/07/16 17:35**	**G1007ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	444.0	447.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0362-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/07/16 17:35**	**G1007HCOD1**
16-10-0362-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/07/16 17:35**	**G1007HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	444.0	447.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0436-2	**Sample**	**Aqueous**	**N/A**	**10/08/16 00:00**	**10/08/16 15:00**	**G1008TDSD1**
16-10-0436-2	**Sample Duplicate**	**Aqueous**	**N/A**	**10/08/16 00:00**	**10/08/16 15:00**	**G1008TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1355	1375	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: CG Roxane			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-10-0362-1	**Sample**	**Aqueous**	**BUR05**	**10/11/16 00:00**	**10/11/16 13:45**	**G1011TKND1**
16-10-0362-1	**Sample Duplicate**	**Aqueous**	**BUR05**	**10/11/16 00:00**	**10/11/16 13:45**	**G1011TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	3.710	3.500	6	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6998	**LCS**	**Aqueous**	**IC 15**	**N/A**	**10/07/16 11:09**	**161007L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	52.07	104	90-110	
Sulfate	50.00	52.34	105	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 10/07/16
924 Anacapa Street, Suite 4A	Work Order: 16-10-0502
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2320B
Project: CG Roxane	Page 2 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-1078	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/07/16 17:35**	**G1007ALKB1**
099-15-859-1078	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**10/07/16 17:35**	**G1007ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	101.0	101	100.0	100	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5273	**LCS**	**Aqueous**	**N/A**	**10/08/16**	**10/08/16 15:00**	**G1008TDSL1**
099-12-180-5273	**LCSD**	**Aqueous**	**N/A**	**10/08/16**	**10/08/16 15:00**	**G1008TDSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	85.00	85	85.00	85	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 10/07/16
924 Anacapa Street, Suite 4A	Work Order: 16-10-0502
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: CG Roxane	Page 4 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2798	**LCS**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008TPL2**
099-05-098-2798	**LCSD**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008TPL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4171	104	0.4224	106	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane			Page 5 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-208	**LCS**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008PO4L2**
099-14-276-208	**LCSD**	**Aqueous**	**UV 8**	**10/08/16**	**10/08/16 13:14**	**G1008PO4L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.276	105	1.293	106	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 10/07/16
924 Anacapa Street, Suite 4A	Work Order: 16-10-0502
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NH3 B/C
Project: CG Roxane	Page 6 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2443	**LCS**	**Aqueous**	**BUR05**	**10/07/16**	**10/07/16 12:49**	**G1007NH3L1**
099-12-814-2443	**LCSD**	**Aqueous**	**BUR05**	**10/07/16**	**10/07/16 12:49**	**G1007NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.424	88	4.396	88	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: SM 4500-NO3 E
Page 7 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-450	**LCS**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:55**	**G1007NO3L1**
099-14-282-450	**LCSD**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:55**	**G1007NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5075	102	0.5129	103	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: N/A
Method: SM 5540C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3148	**LCS**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:02**	**G1007SURL1**
099-05-093-3148	**LCSD**	**Aqueous**	**UV 8**	**10/07/16**	**10/07/16 17:02**	**G1007SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9197	92	0.9341	93	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane			Page 9 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6710	**LCS**	**Aqueous**	**ICP 7300**	**10/07/16**	**10/12/16 14:14**	**161007LA6A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5376	108	85-115	
Magnesium	0.5000	0.4715	94	85-115	
Sodium	5.000	4.633	93	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3020A Total
Method: EPA 6020
Page 10 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-5343	**LCS**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:11**	**161007LA3**
096-06-003-5343	**LCSD**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 21:14**	**161007LA3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	0.1000	0.1042	104	0.1049	105	80-120	73-127	1	0-20	
Arsenic	0.1000	0.1028	103	0.1020	102	80-120	73-127	1	0-20	
Barium	0.1000	0.1024	102	0.1026	103	80-120	73-127	0	0-20	
Beryllium	0.1000	0.1073	107	0.1077	108	80-120	73-127	0	0-20	
Cadmium	0.1000	0.1026	103	0.1031	103	80-120	73-127	1	0-20	
Chromium	0.1000	0.1023	102	0.1012	101	80-120	73-127	1	0-20	
Cobalt	0.1000	0.1019	102	0.1031	103	80-120	73-127	1	0-20	
Copper	0.1000	0.1018	102	0.1024	102	80-120	73-127	1	0-20	
Lead	0.1000	0.1031	103	0.1020	102	80-120	73-127	1	0-20	
Molybdenum	0.1000	0.1026	103	0.1033	103	80-120	73-127	1	0-20	
Nickel	0.1000	0.1007	101	0.1016	102	80-120	73-127	1	0-20	
Selenium	0.1000	0.1068	107	0.1082	108	80-120	73-127	1	0-20	
Silver	0.05000	0.05159	103	0.05206	104	80-120	73-127	1	0-20	
Thallium	0.1000	0.09851	99	0.09853	99	80-120	73-127	0	0-20	
Vanadium	0.1000	0.1029	103	0.1036	104	80-120	73-127	1	0-20	
Zinc	0.1000	0.1078	108	0.1068	107	80-120	73-127	1	0-20	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane			Page 11 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1253	**LCS**	**Aqueous**	**ICP/MS 03**	**10/07/16**	**10/10/16 22:11**	**161007LA2F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1006	101	80-120	73-127	
Arsenic	0.1000	0.1000	100	80-120	73-127	
Barium	0.1000	0.09910	99	80-120	73-127	
Beryllium	0.1000	0.1005	101	80-120	73-127	
Cadmium	0.1000	0.1017	102	80-120	73-127	
Chromium	0.1000	0.1049	105	80-120	73-127	
Cobalt	0.1000	0.1021	102	80-120	73-127	
Copper	0.1000	0.1024	102	80-120	73-127	
Lead	0.1000	0.1015	101	80-120	73-127	
Molybdenum	0.1000	0.1051	105	80-120	73-127	
Nickel	0.1000	0.1029	103	80-120	73-127	
Selenium	0.1000	0.1072	107	80-120	73-127	
Silver	0.05000	0.05141	103	80-120	73-127	
Thallium	0.1000	0.09726	97	80-120	73-127	
Vanadium	0.1000	0.1024	102	80-120	73-127	
Zinc	0.1000	0.1037	104	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane			Page 12 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-8000	**LCS**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 14:03**	**161010LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.008442	84	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane			Page 13 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-841	**LCS**	**Aqueous**	**Mercury 04**	**10/10/16**	**10/10/16 20:09**	**161010LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01078	108	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-66	**LCS**	**Aqueous**	**GC/MS CCC**	**10/07/16**	**10/10/16 11:53**	**161007L11A**
099-02-008-66	**LCSD**	**Aqueous**	**GC/MS CCC**	**10/07/16**	**10/10/16 12:12**	**161007L11A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	71.32	71	77.28	77	45-110	34-121	8	0-11	
Acenaphthylene	100.0	69.75	70	74.58	75	50-105	41-114	7	0-20	
Aniline	100.0	62.35	62	67.26	67	50-130	37-143	8	0-20	
Anthracene	100.0	74.06	74	79.18	79	55-110	46-119	7	0-20	
Azobenzene	100.0	65.59	66	70.59	71	50-130	37-143	7	0-20	
Benzidine	100.0	75.75	76	89.49	89	50-130	37-143	17	0-20	
Benzo (a) Anthracene	100.0	73.70	74	79.68	80	55-110	46-119	8	0-20	
Benzo (a) Pyrene	100.0	84.77	85	91.29	91	55-110	46-119	7	0-20	
Benzo (b) Fluoranthene	100.0	80.62	81	88.03	88	45-120	32-132	9	0-20	
Benzo (g,h,i) Perylene	100.0	81.61	82	85.70	86	40-125	26-139	5	0-20	
Benzo (k) Fluoranthene	100.0	77.63	78	84.22	84	45-125	32-138	8	0-20	
Benzoic Acid	100.0	71.78	72	78.77	79	50-130	37-143	9	0-20	
Benzyl Alcohol	100.0	69.67	70	74.79	75	30-110	17-123	7	0-20	
Bis(2-Chloroethoxy) Methane	100.0	69.89	70	75.51	76	45-105	35-115	8	0-20	
Bis(2-Chloroethyl) Ether	100.0	68.73	69	73.85	74	35-110	22-122	7	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	61.49	61	65.96	66	25-130	8-148	7	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	65.62	66	72.38	72	40-125	26-139	10	0-20	
4-Bromophenyl-Phenyl Ether	100.0	75.79	76	82.93	83	50-115	39-126	9	0-20	
Butyl Benzyl Phthalate	100.0	67.78	68	73.79	74	45-115	33-127	8	0-20	
4-Chloro-3-Methylphenol	100.0	74.55	75	80.31	80	45-110	34-121	7	0-40	
4-Chloroaniline	100.0	69.82	70	71.10	71	15-110	0-126	2	0-20	
2-Chloronaphthalene	100.0	74.17	74	78.64	79	50-105	41-114	6	0-20	
2-Chlorophenol	100.0	76.55	77	81.92	82	35-105	23-117	7	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	72.33	72	78.95	79	50-110	40-120	9	0-20	
Chrysene	100.0	71.07	71	76.82	77	55-110	46-119	8	0-20	
2,6-Dichlorophenol	100.0	78.30	78	84.09	84	42-120	29-133	7	0-21	
Di-n-Butyl Phthalate	100.0	70.05	70	76.24	76	55-115	45-125	8	0-20	
Di-n-Octyl Phthalate	100.0	69.96	70	76.52	77	35-135	18-152	9	0-20	
Dibenz (a,h) Anthracene	100.0	75.55	76	80.56	81	40-125	26-139	6	0-20	
Dibenzofuran	100.0	73.35	73	78.73	79	55-105	47-113	7	0-20	
1,2-Dichlorobenzene	100.0	71.05	71	76.69	77	35-100	24-111	8	0-20	
1,3-Dichlorobenzene	100.0	72.17	72	78.03	78	30-100	18-112	8	0-20	
1,4-Dichlorobenzene	100.0	70.79	71	77.05	77	30-100	18-112	8	0-26	
3,3'-Dichlorobenzidine	100.0	82.24	82	84.73	85	20-110	5-125	3	0-20	
2,4-Dichlorophenol	100.0	77.98	78	83.03	83	50-105	41-114	6	0-20	
Diethyl Phthalate	100.0	67.72	68	72.65	73	40-120	27-133	7	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane			Page 15 of 18

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	70.94	71	75.92	76	25-125	8-142	7	0-20	
2,4-Dimethylphenol	100.0	76.70	77	82.14	82	30-110	17-123	7	0-20	
4,6-Dinitro-2-Methylphenol	100.0	81.06	81	87.99	88	40-130	25-145	8	0-20	
2,4-Dinitrophenol	100.0	72.55	73	78.52	79	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	77.11	77	83.67	84	50-120	38-132	8	0-36	
2,6-Dinitrotoluene	100.0	76.53	77	81.42	81	50-115	39-126	6	0-20	
Fluoranthene	100.0	75.69	76	83.96	84	55-115	45-125	10	0-20	
Fluorene	100.0	70.31	70	75.89	76	50-110	40-120	8	0-20	
Hexachloro-1,3-Butadiene	100.0	77.15	77	84.47	84	25-105	12-118	9	0-20	
Hexachlorobenzene	100.0	69.20	69	77.27	77	50-110	40-120	11	0-20	
Hexachlorocyclopentadiene	100.0	77.37	77	82.85	83	50-130	37-143	7	0-20	
Hexachloroethane	100.0	73.80	74	78.09	78	30-95	19-106	6	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	74.54	75	79.22	79	45-125	32-138	6	0-20	
Isophorone	100.0	66.37	66	70.96	71	50-110	40-120	7	0-20	
2-Methylnaphthalene	100.0	77.07	77	82.16	82	45-105	35-115	6	0-20	
1-Methylnaphthalene	100.0	70.24	70	75.48	75	45-105	35-115	7	0-20	
2-Methylphenol	100.0	73.33	73	78.10	78	40-110	28-122	6	0-20	
3/4-Methylphenol	200.0	147.3	74	159.4	80	30-110	17-123	8	0-20	
N-Nitroso-di-n-propylamine	100.0	66.27	66	72.45	72	35-130	19-146	9	0-13	
N-Nitrosodimethylamine	100.0	63.97	64	69.47	69	25-110	11-124	8	0-20	
N-Nitrosodiphenylamine	100.0	83.31	83	88.99	89	50-110	40-120	7	0-20	
Naphthalene	100.0	70.36	70	75.84	76	40-100	30-110	7	0-20	
4-Nitroaniline	100.0	75.11	75	80.58	81	35-120	21-134	7	0-20	
3-Nitroaniline	100.0	77.31	77	81.98	82	20-125	2-142	6	0-20	
2-Nitroaniline	100.0	75.48	75	80.76	81	50-115	39-126	7	0-20	
Nitrobenzene	100.0	70.89	71	77.78	78	45-110	34-121	9	0-20	
4-Nitrophenol	100.0	70.81	71	73.84	74	20-150	0-172	4	0-40	
2-Nitrophenol	100.0	84.07	84	90.61	91	40-115	28-128	7	0-20	
Pentachlorophenol	100.0	60.33	60	63.77	64	40-115	28-128	6	0-40	
Phenanthrene	100.0	74.44	74	80.15	80	50-115	39-126	7	0-20	
Phenol	100.0	73.38	73	78.84	79	10-115	0-132	7	0-23	
Pyrene	100.0	70.91	71	75.59	76	50-130	37-143	6	0-20	
Pyridine	100.0	48.56	49	62.32	62	52-115	42-126	25	0-20	ME,X
1,2,4-Trichlorobenzene	100.0	75.49	75	81.93	82	35-105	23-117	8	0-21	
2,4,6-Trichlorophenol	100.0	79.05	79	86.11	86	50-115	39-126	9	0-20	
2,4,5-Trichlorophenol	100.0	79.00	79	83.57	84	50-110	40-120	6	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 1

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	10/07/16
924 Anacapa Street, Suite 4A	Work Order:	16-10-0502
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: CG Roxane		Page 16 of 18

Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 10/07/16
Work Order: 16-10-0502
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-316-3037	**LCS**	**Aqueous**	**GC/MS RR**	**10/07/16**	**10/07/16 17:53**	**161007L044**
099-14-316-3037	**LCSD**	**Aqueous**	**GC/MS RR**	**10/07/16**	**10/07/16 18:25**	**161007L044**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	44.46	89	46.83	94	12-150	0-173	5	0-20	
Benzene	50.00	49.22	98	49.66	99	80-120	73-127	1	0-20	
Bromobenzene	50.00	49.93	100	50.95	102	80-120	73-127	2	0-20	
Bromochloromethane	50.00	50.04	100	49.85	100	80-122	73-129	0	0-20	
Bromodichloromethane	50.00	51.59	103	52.03	104	80-123	73-130	1	0-20	
Bromoform	50.00	45.00	90	45.84	92	74-134	64-144	2	0-20	
Bromomethane	50.00	46.36	93	43.68	87	22-160	0-183	6	0-20	
2-Butanone	50.00	42.04	84	44.68	89	44-164	24-184	6	0-20	
n-Butylbenzene	50.00	52.21	104	51.79	104	80-132	71-141	1	0-20	
sec-Butylbenzene	50.00	50.63	101	49.91	100	80-129	72-137	1	0-20	
tert-Butylbenzene	50.00	48.76	98	49.78	100	80-130	72-138	2	0-20	
Carbon Disulfide	50.00	50.88	102	49.61	99	60-126	49-137	3	0-20	
Carbon Tetrachloride	50.00	53.18	106	52.23	104	64-148	50-162	2	0-20	
Chlorobenzene	50.00	48.74	97	48.91	98	80-120	73-127	0	0-20	
Chloroethane	50.00	47.91	96	46.02	92	63-123	53-133	4	0-20	
Chloroform	50.00	49.26	99	49.30	99	79-121	72-128	0	0-20	
Chloromethane	50.00	48.57	97	48.46	97	43-133	28-148	0	0-20	
2-Chlorotoluene	50.00	50.60	101	50.51	101	80-130	72-138	0	0-20	
4-Chlorotoluene	50.00	48.71	97	49.36	99	80-121	73-128	1	0-20	
Dibromochloromethane	50.00	47.81	96	47.99	96	80-125	72-132	0	0-20	
1,2-Dibromo-3-Chloropropane	50.00	44.95	90	44.68	89	68-128	58-138	1	0-20	
1,2-Dibromoethane	50.00	48.74	97	48.42	97	80-120	73-127	1	0-20	
Dibromomethane	50.00	48.98	98	49.09	98	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	50.00	48.26	97	49.16	98	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	48.05	96	48.26	97	80-121	73-128	0	0-20	
1,4-Dichlorobenzene	50.00	47.04	94	47.99	96	80-120	73-127	2	0-20	
Dichlorodifluoromethane	50.00	47.29	95	43.44	87	25-187	0-214	8	0-20	
1,1-Dichloroethane	50.00	53.33	107	52.52	105	75-120	68-128	2	0-20	
1,2-Dichloroethane	50.00	49.14	98	48.71	97	80-123	73-130	1	0-20	
1,1-Dichloroethene	50.00	46.74	93	45.87	92	74-122	66-130	2	0-20	
c-1,2-Dichloroethene	50.00	49.43	99	49.53	99	75-123	67-131	0	0-20	
t-1,2-Dichloroethene	50.00	51.83	104	51.82	104	70-124	61-133	0	0-20	
1,2-Dichloropropane	50.00	49.98	100	49.70	99	80-120	73-127	1	0-20	
1,3-Dichloropropane	50.00	49.02	98	48.74	97	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	55.70	111	53.03	106	49-151	32-168	5	0-20	
1,1-Dichloropropene	50.00	49.88	100	49.51	99	76-120	69-127	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	10/07/16
924 Anacapa Street, Suite 4A		Work Order:	16-10-0502
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane			Page 18 of 18

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	49.71	99	50.19	100	80-124	73-131	1	0-20	
t-1,3-Dichloropropene	50.00	50.46	101	50.73	101	68-128	58-138	1	0-20	
Ethylbenzene	50.00	50.35	101	49.97	100	80-120	73-127	1	0-20	
2-Hexanone	50.00	42.67	85	44.63	89	57-147	42-162	4	0-20	
Isopropylbenzene	50.00	50.62	101	50.17	100	80-127	72-135	1	0-20	
p-Isopropyltoluene	50.00	51.07	102	50.29	101	80-125	72-132	2	0-20	
Methylene Chloride	50.00	47.45	95	47.90	96	74-122	66-130	1	0-20	
4-Methyl-2-Pentanone	50.00	44.02	88	45.40	91	71-125	62-134	3	0-20	
Naphthalene	50.00	43.55	87	48.25	96	54-144	39-159	10	0-20	
n-Propylbenzene	50.00	51.59	103	50.39	101	80-127	72-135	2	0-20	
Styrene	50.00	52.21	104	51.99	104	80-120	73-127	0	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.39	101	50.19	100	80-125	72-132	0	0-20	
1,1,2,2-Tetrachloroethane	50.00	46.11	92	45.97	92	78-126	70-134	0	0-20	
Tetrachloroethene	50.00	52.09	104	46.85	94	57-141	43-155	11	0-20	
Toluene	50.00	49.79	100	50.19	100	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	46.89	94	49.17	98	58-154	42-170	5	0-20	
1,2,4-Trichlorobenzene	50.00	47.89	96	49.75	100	57-153	41-169	4	0-20	
1,1,1-Trichloroethane	50.00	51.24	102	51.12	102	76-124	68-132	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	54.85	110	50.10	100	58-148	43-163	9	0-20	
1,1,2-Trichloroethane	50.00	49.45	99	48.32	97	80-120	73-127	2	0-20	
Trichloroethene	50.00	51.64	103	51.09	102	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	47.63	95	45.98	92	64-136	52-148	4	0-20	
1,2,3-Trichloropropane	50.00	46.88	94	47.13	94	74-122	66-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	49.81	100	50.08	100	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	53.41	107	53.83	108	80-126	72-134	1	0-20	
Vinyl Acetate	50.00	54.11	108	54.52	109	34-172	11-195	1	0-20	
Vinyl Chloride	50.00	45.44	91	44.66	89	67-127	57-137	2	0-20	
p/m-Xylene	100.0	103.3	103	102.2	102	80-127	72-135	1	0-20	
o-Xylene	50.00	51.77	104	51.56	103	80-127	72-135	0	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	48.02	96	48.54	97	71-120	63-128	1	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-10-0502 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	598	ICP 7300	1
EPA 300.0	N/A	1065	IC 15	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	868	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1023	GC/MS RR	2
EPA 8270C	EPA 3510C	928	GC/MS CCC	1
SM 2320B	N/A	1068	PH1/BUR03	1
SM 2540 C	N/A	1009	N/A	1
SM 4500 N Org B	N/A	735	BUR05	1
SM 4500 P B/E	N/A	1068	UV 8	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	1068	UV 8	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-10-0502 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY
16-10-0502

DATE: 10/6/16
PAGE: 1 OF 1

LABORATORY CLIENT: **Geosyntec Consultants**
ADDRESS: 924 Anacapa St. Suite 4A
CITY: Santa Barbara STATE: CA ZIP: 93101
TEL: 805-897-3800 E-MAIL: KCoffman@geosyntec.com

CLIENT PROJECT NAME / NUMBER: CG Roxane
P.O. NO.:
PROJECT CONTACT: Kevin Coffman
SAMPLER(S): (PRINT) Ryan Smith

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:
1 Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	MW-10-20161006	10/6/16	10:30	W	13	Various			X	X	X	X	X	X	X	X	X	X	X	X	X
2	QCTB-1-20161006	10/6/16	—	W	2						X										

Relinquished by: (Signature) Ryan Smith	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 10/7/16	Time: 1000
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

0502

FedEx Express Package US Airbill

FedEx Tracking Number 8082 2363 3902

SLA1

Form ID No. 0215 Recipient's Copy

1 From

Date 10/16/16

Sender's Name Ryan Smith Phone 760 764-2885

Company C G ROXANE CO

Address 1210 S HWY 395 Dept./Floor/Suite/Room

City OLANCHA State CA ZIP 93549

2 Your Internal Billing Reference

3 To

Recipient's Name Eurofins Calscience Phone 714 895-5494

Company Eurofins Calscience

Address 7440 Lincoln Way Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Garden Grove State CA ZIP 928-41-1427

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight. ☐

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations. ☐

0119230482

8082 2363 3902

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

☐ Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*

☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

Does this shipment contain dangerous goods?

One box must be checked.

☐ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third-Party ☐ Credit Card ☐ Cash/Check

Total Packages 1 Total Weight 18 lbs. Credit Card Auth.

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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fedex.com 1.800.463.3339

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WORK ORDER NUMBER: 16-10- 0502

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 10 / 07 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.6 °C (w/ CF): 2.6 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: IS

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: IS

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: ZZ

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☑ No relinquished date ☑ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑ WSC 100716	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☑ Dissolved Metals			
Container(s) for certain analysis free of headspace	☑	☐	☐
☑ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: 160929A)

Aqueous: ☐ VOA ☑ 5 VOAh ☐ VOA**na**$_2$ ☐ 100PJ ☐ 100PJ**na**$_2$ ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGB**s** ☑ 250PB ☑ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☑ 500PB ☑ 1AGB ☐ 1AGB**na**$_2$ ☑ 1AGB**s** ☑ 1PB ☐ 1PB**na** ☐ _____ WSC 100716 ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na**$_2$ = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: ZZ

s = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: 1017

Return to Contents

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WORK ORDER NUMBER: 16-10- 0502

SAMPLE ANOMALY REPORT

DATE: 10 / 07 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☑ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☑ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(1) received container for Dissolved Metals lab filtered instead of Dissolved Metals field filtered.

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: _____

Reviewed by: 10/7

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 09/06/2016

Kevin Coffman

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	CG Roxane
BCL Project:	Bacteriological
BCL Work Order:	1624332
Invoice ID:	B245307

Enclosed are the results of analyses for samples received by the laboratory on 9/1/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

Table of Contents

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1624332-01	**COC Number:**	---	**Receive Date:**	09/01/2016 17:13
	Project Number:	---	**Sampling Date:**	09/01/2016 13:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-03-090116	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C: 0.6	
1624332-02	**COC Number:**	---	**Receive Date:**	09/01/2016 17:13
	Project Number:	---	**Sampling Date:**	09/01/2016 13:32
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-02-090116	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1624332-03	**COC Number:**	---	**Receive Date:**	09/01/2016 17:13
	Project Number:	---	**Sampling Date:**	09/01/2016 13:44
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-01-090116	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624332-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-03-090116	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/01/2016 17:13	**Temperature, C:**	0.6
Sampling Date:	09/01/2016 13:00		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	12	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/05/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/05/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/01/2016 17:45	09/05/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/01/2016 17:45	09/05/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/01/2016 17:45	09/05/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624332-02

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-02-090116	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/01/2016 17:13	**Temperature, C:**	
Sampling Date:	09/01/2016 13:32		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624332-03

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-01-090116	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/01/2016 17:13	**Temperature, C:**	
Sampling Date:	09/01/2016 13:44		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/01/2016 17:45	09/03/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/06/2016 16:05
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Notes And Definitions

MPN Most Probable Number

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 09/12/2016

Kevin Coffman

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	CG Roxane
BCL Project:	Bacteriological
BCL Work Order:	1624806
Invoice ID:	B245868

Enclosed are the results of analyses for samples received by the laboratory on 9/7/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

Table of Contents

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1624806-01	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 13:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	OW-8US-090716	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C: 2.1	
1624806-02	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 13:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	OW-8US-090716-DUP	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: REPEAT	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1624806-03	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 13:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-12-090716	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

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Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1624806-04	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 13:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-07-090716	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1624806-05	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 13:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-06-090716	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1624806-06	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 12:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-13-090716	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

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Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1624806-07	**COC Number:**	---	**Receive Date:**	09/07/2016 16:45
	Project Number:	---	**Sampling Date:**	09/07/2016 13:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-09-090716	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

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Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	OW-8US-090716	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	2.1
Sampling Date:	09/07/2016 13:40		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

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Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-02

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	OW-8US-090716-DUP	**Sample Site:**	REPEAT
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	
Sampling Date:	09/07/2016 13:40		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

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Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-03

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-12-090716	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	
Sampling Date:	09/07/2016 13:50		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

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Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-04

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-07-090716	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	
Sampling Date:	09/07/2016 13:30		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	2	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	2	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	4.5	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	2	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	4.5	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-05

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-06-090716	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	
Sampling Date:	09/07/2016 13:35		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

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Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-06

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-13-090716	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	
Sampling Date:	09/07/2016 12:50		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	1	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

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924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1624806-07

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-09-090716	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/07/2016 16:45	**Temperature, C:**	
Sampling Date:	09/07/2016 13:50		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	5	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Confirmed Test	5	Positive Tubes	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Total Coliform, Density	23	MPN/100ml	SM-9221B	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	TMT	1	09/07/2016 17:30	09/09/2016	

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924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/12/2016 18:53
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Notes And Definitions

MPN Most Probable Number

Date of Report: 09/13/2016

Kevin Coffman

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	CG Roxane
BCL Project:	Bacteriological
BCL Work Order:	1625015
Invoice ID:	B245898

Enclosed are the results of analyses for samples received by the laboratory on 9/8/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

Table of Contents

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1625015-01	**COC Number:**	---	**Receive Date:**	09/08/2016 17:40
	Project Number:	---	**Sampling Date:**	09/08/2016 14:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-08-090816	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C: 1.6	
1625015-02	**COC Number:**	---	**Receive Date:**	09/08/2016 17:40
	Project Number:	---	**Sampling Date:**	09/08/2016 13:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-11-090816	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1625015-03	**COC Number:**	---	**Receive Date:**	09/08/2016 17:40
	Project Number:	---	**Sampling Date:**	09/08/2016 13:57
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-05-090816	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1625015-04	**COC Number:**	---	**Receive Date:**	09/08/2016 17:40
	Project Number:	---	**Sampling Date:**	09/08/2016 14:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-04-090816	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: ROUTINE	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1625015-05	**COC Number:**	---	**Receive Date:**	09/08/2016 17:40
	Project Number:	---	**Sampling Date:**	09/08/2016 14:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-04-090816-DUP	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: OTHER	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1625015-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-08-090816	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/08/2016 17:40	**Temperature, C:**	1.6
Sampling Date:	09/08/2016 14:05		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1625015-02

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-11-090816	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/08/2016 17:40	**Temperature, C:**	
Sampling Date:	09/08/2016 13:55		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Geosyntec Consultants
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Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1625015-03

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-05-090816	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/08/2016 17:40	**Temperature, C:**	
Sampling Date:	09/08/2016 13:57		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

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Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

1625015-04

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-04-090816	**Sample Site:**	ROUTINE
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/08/2016 17:40	**Temperature, C:**	
Sampling Date:	09/08/2016 14:00		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Geosyntec Consultants
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Project Number: CG Roxane
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1625015-05

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-04-090816-DUP	**Sample Site:**	OTHER
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	09/08/2016 17:40	**Temperature, C:**	
Sampling Date:	09/08/2016 14:00		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Total Coliform, Density	<1.8	MPN/100ml	SM-9221B	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	09/09/2016 09:00	09/11/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/13/2016 12:10
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Kevin Coffman

Notes And Definitions

MPN Most Probable Number

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 09/19/2016

Kevin Coffman

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	[none]
BCL Project:	Bacteriological
BCL Work Order:	1625972
Invoice ID:	B246628

Enclosed are the results of analyses for samples received by the laboratory on 9/16/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

Table of Contents

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/19/2016 17:40
Project: Bacteriological
Project Number: [none]
Project Manager: Kevin Coffman

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1625972-01	**COC Number:**	---	**Receive Date:**	09/16/2016 14:21
	Project Number:	---	**Sampling Date:**	09/16/2016 09:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-15-091616	**Lab Matrix:**	Water
	Sampled By:	Ryan Smith	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: Routine	
			Residual Chlorine, ppm:	
			Lab Temperature, C: 1.6	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/19/2016 17:40
Project: Bacteriological
Project Number: [none]
Project Manager: Kevin Coffman

1625972-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-15-091616	**Sample Site:**	Routine
Sampled By:	Ryan Smith	**Residual Chlorine, ppm:**	
Receive Date:	09/16/2016 14:21	**Temperature, C:**	1.6
Sampling Date:	09/16/2016 09:15		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	1	Positive Tubes	SM-9221B	FBV	1	09/16/2016 14:30	09/19/2016	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	09/16/2016 14:30	09/19/2016	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	09/16/2016 14:30	09/19/2016	
Fecal Coliform, Confirmed Test	1	Positive Tubes	SM-9221E	FBV	1	09/16/2016 14:30	09/19/2016	
Fecal Coliform, Density	2.0	MPN/100ml	SM-9221E	FBV	1	09/16/2016 14:30	09/19/2016	

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 09/19/2016 17:40
Project: Bacteriological
Project Number: [none]
Project Manager: Kevin Coffman

Notes And Definitions

MPN Most Probable Number

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WORK ORDER NUMBER: 16-09-0766

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: Crystal Geyser Phase 3 / SB0794-02

Attention: Kevin Coffman
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 09/20/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

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Contents

Client Project Name: Crystal Geyser Phase 3 / SB0794-02
Work Order Number: 16-09-0766

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Work Order Narrative

Work Order: 16-09-0766 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/12/16. They were assigned to Work Order 16-09-0766.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Return to Contents

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0766
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Phase 3 / SB0794-02
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	09/12/16 16:30
		Number of Containers:	2
Attn:	Kevin Coffman		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SV-01-5-083016	16-09-0766-1	08/30/16 10:59	1	Air
SV-01-5-083016-DUP	16-09-0766-2	08/30/16 10:59	1	Air

Return to Contents

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Detections Summary

Client:	Geosyntec Consultants	Work Order:	16-09-0766
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Phase 3 / SB0794-02
	Santa Barbara, CA 93101-2177	Received:	09/12/16
Attn:	Kevin Coffman		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-01-5-083016 (16-09-0766-1)						
Acetone	30		4.8	ug/m3	EPA TO-15	N/A
Trichloroethene	9.5		2.7	ug/m3	EPA TO-15	N/A
SV-01-5-083016-DUP (16-09-0766-2)						
Acetone	81		5.6	ug/m3	EPA TO-15	N/A
2-Butanone	9.1		5.2	ug/m3	EPA TO-15	N/A
Vinyl Acetate	8.5		8.2	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 09/12/16
Work Order: 16-09-0766
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: Crystal Geyser Phase 3 / SB0794-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-5-083016	**16-09-0766-1-A**	**08/30/16 10:59**	**Air**	**GC/MS YY**	**N/A**	**09/16/16 21:15**	**160916L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	30	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
n-Butylbenzene	ND	2.7	1.00	
sec-Butylbenzene	ND	2.7	1.00	
tert-Butylbenzene	ND	2.7	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,1-Difluoroethane	ND	5.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/12/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0766
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: Crystal Geyser Phase 3 / SB0794-02		Page 2 of 6

Parameter	Result	RL	DF	Qualifiers
2-Hexanone	ND	6.1	1.00	
Isopropanol	ND	12	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Styrene	ND	6.4	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Trichloroethene	9.5	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	70	68-134	
1,2-Dichloroethane-d4	100	67-133	
Toluene-d8	102	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 09/12/16
Work Order: 16-09-0766
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: Crystal Geyser Phase 3 / SB0794-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-5-083016-DUP	**16-09-0766-2-A**	**08/30/16 10:59**	**Air**	**GC/MS YY**	**N/A**	**09/16/16 22:12**	**160916L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	81	5.6	1.17	
Benzene	ND	1.9	1.17	
Benzyl Chloride	ND	9.1	1.17	
Bromodichloromethane	ND	3.9	1.17	
Bromoform	ND	6.0	1.17	
Bromomethane	ND	2.3	1.17	
2-Butanone	9.1	5.2	1.17	
n-Butylbenzene	ND	3.2	1.17	
sec-Butylbenzene	ND	3.2	1.17	
tert-Butylbenzene	ND	3.2	1.17	
Carbon Disulfide	ND	7.3	1.17	
Carbon Tetrachloride	ND	3.7	1.17	
Chlorobenzene	ND	2.7	1.17	
Chloroethane	ND	1.5	1.17	
Chloroform	ND	2.9	1.17	
Chloromethane	ND	1.2	1.17	
Dibromochloromethane	ND	5.0	1.17	
1,2-Dibromoethane	ND	4.5	1.17	
1,2-Dichlorobenzene	ND	3.5	1.17	
1,3-Dichlorobenzene	ND	3.5	1.17	
1,4-Dichlorobenzene	ND	3.5	1.17	
Dichlorodifluoromethane	ND	2.9	1.17	
1,1-Dichloroethane	ND	2.4	1.17	
1,2-Dichloroethane	ND	2.4	1.17	
1,1-Dichloroethene	ND	2.3	1.17	
c-1,2-Dichloroethene	ND	2.3	1.17	
t-1,2-Dichloroethene	ND	2.3	1.17	
1,2-Dichloropropane	ND	2.7	1.17	
c-1,3-Dichloropropene	ND	2.7	1.17	
t-1,3-Dichloropropene	ND	5.3	1.17	
Dichlorotetrafluoroethane	ND	16	1.17	
1,1-Difluoroethane	ND	6.3	1.17	
Ethylbenzene	ND	2.5	1.17	
4-Ethyltoluene	ND	2.9	1.17	
Hexachloro-1,3-Butadiene	ND	19	1.17	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/12/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0766
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: Crystal Geyser Phase 3 / SB0794-02		Page 4 of 6

Parameter	Result	RL	DF	Qualifiers
2-Hexanone	ND	7.2	1.17	
Isopropanol	ND	14	1.17	
Methyl-t-Butyl Ether (MTBE)	ND	8.4	1.17	
Methylene Chloride	ND	20	1.17	
4-Methyl-2-Pentanone	ND	7.2	1.17	
Styrene	ND	7.5	1.17	
1,1,2,2-Tetrachloroethane	ND	8.0	1.17	
Tetrachloroethene	ND	4.0	1.17	
Toluene	ND	2.2	1.17	
1,1,1-Trichloroethane	ND	3.2	1.17	
1,1,2-Trichloroethane	ND	3.2	1.17	
Trichloroethene	ND	3.1	1.17	
Trichlorofluoromethane	ND	6.6	1.17	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.17	
1,2,4-Trimethylbenzene	ND	8.6	1.17	
1,3,5-Trimethylbenzene	ND	2.9	1.17	
Vinyl Acetate	8.5	8.2	1.17	
Vinyl Chloride	ND	1.5	1.17	
o-Xylene	ND	2.5	1.17	
p/m-Xylene	ND	10	1.17	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	85	68-134	
1,2-Dichloroethane-d4	102	67-133	
Toluene-d8	103	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 09/12/16
Work Order: 16-09-0766
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Project: Crystal Geyser Phase 3 / SB0794-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-17482**	**N/A**	**Air**	**GC/MS YY**	**N/A**	**09/16/16 16:18**	**160916L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	4.8	1.00	
Benzene	ND	1.6	1.00	
Benzyl Chloride	ND	7.8	1.00	
Bromodichloromethane	ND	3.4	1.00	
Bromoform	ND	5.2	1.00	
Bromomethane	ND	1.9	1.00	
2-Butanone	ND	4.4	1.00	
n-Butylbenzene	ND	2.7	1.00	
sec-Butylbenzene	ND	2.7	1.00	
tert-Butylbenzene	ND	2.7	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chlorobenzene	ND	2.3	1.00	
Chloroethane	ND	1.3	1.00	
Chloroform	ND	2.4	1.00	
Chloromethane	ND	1.0	1.00	
Dibromochloromethane	ND	4.3	1.00	
1,2-Dibromoethane	ND	3.8	1.00	
1,2-Dichlorobenzene	ND	3.0	1.00	
1,3-Dichlorobenzene	ND	3.0	1.00	
1,4-Dichlorobenzene	ND	3.0	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
c-1,2-Dichloroethene	ND	2.0	1.00	
t-1,2-Dichloroethene	ND	2.0	1.00	
1,2-Dichloropropane	ND	2.3	1.00	
c-1,3-Dichloropropene	ND	2.3	1.00	
t-1,3-Dichloropropene	ND	4.5	1.00	
Dichlorotetrafluoroethane	ND	14	1.00	
1,1-Difluoroethane	ND	5.4	1.00	
Ethylbenzene	ND	2.2	1.00	
4-Ethyltoluene	ND	2.5	1.00	
Hexachloro-1,3-Butadiene	ND	16	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

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Analytical Report

Geosyntec Consultants	Date Received:	09/12/16
924 Anacapa Street, Suite 4A	Work Order:	16-09-0766
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: Crystal Geyser Phase 3 / SB0794-02		Page 6 of 6

Parameter	Result	RL	DF	Qualifiers
2-Hexanone	ND	6.1	1.00	
Isopropanol	ND	12	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	7.2	1.00	
Methylene Chloride	ND	17	1.00	
4-Methyl-2-Pentanone	ND	6.1	1.00	
Styrene	ND	6.4	1.00	
1,1,2,2-Tetrachloroethane	ND	6.9	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,2,4-Trimethylbenzene	ND	7.4	1.00	
1,3,5-Trimethylbenzene	ND	2.5	1.00	
Vinyl Acetate	ND	7.0	1.00	
Vinyl Chloride	ND	1.3	1.00	
o-Xylene	ND	2.2	1.00	
p/m-Xylene	ND	8.7	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	68-134	
1,2-Dichloroethane-d4	102	67-133	
Toluene-d8	101	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 09/12/16
Work Order: 16-09-0766
Preparation: N/A
Method: EPA TO-15

Project: Crystal Geyser Phase 3 / SB0794-02

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-17482	**LCS**	**Air**	**GC/MS YY**	**N/A**	**09/16/16 13:07**	**160916L01**
095-01-021-17482	**LCSD**	**Air**	**GC/MS YY**	**N/A**	**09/16/16 14:00**	**160916L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	68.60	116	63.76	107	67-133	56-144	7	0-30	
Benzene	79.87	83.36	104	83.26	104	70-130	60-140	0	0-30	
Benzyl Chloride	129.4	143.3	111	149.2	115	38-158	18-178	4	0-30	
Bromodichloromethane	167.5	175.8	105	174.7	104	70-130	60-140	1	0-30	
Bromoform	258.4	296.8	115	307.0	119	63-147	49-161	3	0-30	
Bromomethane	97.08	97.43	100	96.05	99	70-139	58-150	1	0-30	
2-Butanone	73.73	78.57	107	77.83	106	66-132	55-143	1	0-30	
n-Butylbenzene	137.2	152.3	111	158.1	115	50-150	33-167	4	0-30	
sec-Butylbenzene	137.2	148.8	108	154.2	112	50-150	33-167	4	0-30	
tert-Butylbenzene	137.2	154.5	113	160.1	117	50-150	33-167	4	0-30	
Carbon Disulfide	77.85	80.35	103	79.94	103	68-146	55-159	1	0-30	
Carbon Tetrachloride	157.3	161.6	103	161.6	103	70-136	59-147	0	0-30	
Chlorobenzene	115.1	119.9	104	124.6	108	70-130	60-140	4	0-30	
Chloroethane	65.96	68.44	104	66.15	100	65-149	51-163	3	0-30	
Chloroform	122.1	125.3	103	124.4	102	70-130	60-140	1	0-30	
Chloromethane	51.63	52.18	101	51.66	100	69-141	57-153	1	0-30	
Dibromochloromethane	213.0	223.3	105	232.9	109	70-138	59-149	4	0-30	
1,2-Dibromoethane	192.1	204.0	106	212.6	111	70-133	60-144	4	0-30	
1,2-Dichlorobenzene	150.3	164.3	109	170.0	113	48-138	33-153	3	0-30	
1,3-Dichlorobenzene	150.3	171.5	114	177.5	118	56-134	43-147	3	0-30	
1,4-Dichlorobenzene	150.3	173.2	115	178.5	119	52-136	38-150	3	0-30	
Dichlorodifluoromethane	123.6	127.0	103	124.3	101	67-139	55-151	2	0-30	
1,1-Dichloroethane	101.2	102.3	101	102.1	101	70-130	60-140	0	0-30	
1,2-Dichloroethane	101.2	101.4	100	100.8	100	70-132	60-142	1	0-30	
1,1-Dichloroethene	99.12	99.78	101	98.69	100	70-135	59-146	1	0-30	
c-1,2-Dichloroethene	99.12	101.3	102	101.4	102	70-130	60-140	0	0-30	
t-1,2-Dichloroethene	99.12	100.9	102	101.0	102	70-130	60-140	0	0-30	
1,2-Dichloropropane	115.5	120.5	104	119.7	104	70-130	60-140	1	0-30	
c-1,3-Dichloropropene	113.5	121.0	107	120.7	106	70-130	60-140	0	0-30	
t-1,3-Dichloropropene	113.5	123.3	109	122.2	108	70-147	57-160	1	0-30	
Dichlorotetrafluoroethane	174.8	191.4	109	186.3	107	51-135	37-149	3	0-30	
1,1-Difluoroethane	67.54	67.29	100	67.16	99	70-131	60-141	0	0-30	
Ethylbenzene	108.6	114.0	105	118.2	109	70-130	60-140	4	0-30	
4-Ethyltoluene	122.9	133.9	109	139.1	113	68-130	58-140	4	0-30	
Hexachloro-1,3-Butadiene	266.6	288.3	108	303.6	114	44-146	27-163	5	0-30	
2-Hexanone	102.4	113.6	111	119.0	116	70-136	59-147	5	0-30	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

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Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 09/12/16
Work Order: 16-09-0766
Preparation: N/A
Method: EPA TO-15

Project: Crystal Geyser Phase 3 / SB0794-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Isopropanol	61.45	68.21	111	62.96	102	57-135	44-148	8	0-30	
Methyl-t-Butyl Ether (MTBE)	90.13	93.88	104	93.91	104	68-130	58-140	0	0-30	
Methylene Chloride	86.84	85.84	99	85.46	98	69-130	59-140	0	0-30	
4-Methyl-2-Pentanone	102.4	114.4	112	114.4	112	70-130	60-140	0	0-30	
Styrene	106.5	108.3	102	112.6	106	65-131	54-142	4	0-30	
1,1,2,2-Tetrachloroethane	171.6	193.7	113	199.9	116	63-130	52-141	3	0-30	
Tetrachloroethene	169.6	178.3	105	186.0	110	70-130	60-140	4	0-30	
Toluene	94.21	95.65	102	99.37	105	70-130	60-140	4	0-30	
1,1,1-Trichloroethane	136.4	139.7	102	139.9	103	70-130	60-140	0	0-30	
1,1,2-Trichloroethane	136.4	146.8	108	147.5	108	70-130	60-140	0	0-30	
Trichloroethene	134.3	143.6	107	142.2	106	70-130	60-140	1	0-30	
Trichlorofluoromethane	140.5	148.4	106	145.3	103	63-141	50-154	2	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	204.3	107	204.9	107	70-136	59-147	0	0-30	
1,2,4-Trimethylbenzene	122.9	143.0	116	148.1	121	60-132	48-144	4	0-30	
1,3,5-Trimethylbenzene	122.9	134.5	109	139.8	114	62-130	51-141	4	0-30	
Vinyl Acetate	88.03	87.31	99	86.90	99	58-130	46-142	0	0-30	
Vinyl Chloride	63.91	65.61	103	64.79	101	70-134	59-145	1	0-30	
o-Xylene	108.6	112.9	104	116.7	107	69-130	59-140	3	0-30	
p/m-Xylene	217.1	239.8	110	247.3	114	70-132	60-142	3	0-30	

Total number of LCS compounds: 55
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 16-09-0766 Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
SV-01-5-083016	-29.50 in Hg	-8.00 in Hg	LC369	Summa Canister 1L
SV-01-5-083016-DUP	-29.50 in Hg	-9.00 in Hg	LC1032	Summa Canister 1L

Return to Contents

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Sample Analysis Summary Report

Work Order: 16-09-0766 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA TO-15	N/A	953	GC/MS YY	2

Return to Contents

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Glossary of Terms and Qualifiers

Work Order: 16-09-0766 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Return to Contents

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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.

WO # / LAB USE ONLY
16-09-0766

AIR CHAIN OF CUSTODY RECORD

DATE: 9/12/2016

PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants	CLIENT PROJECT NAME / NUMBER: Crystal Geyser Phase 3	P.O. NO.: SB0794-02
ADDRESS: 924 Anacapa St. Ste 4A	PROJECT ADDRESS: 1210 US 395	LAB CONTACT OR QUOTE NO.: Stephen Nowak
CITY: Santa Barbara STATE: CA ZIP: 93101	CITY: Olancha STATE: CA ZIP: 93549	SAMPLER(S): (PRINT) Michael Cronin
TEL: 805-897-3800 E-MAIL: Kcoffman@geosyntec.com	PROJECT CONTACT: Kevin Coffman	

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ EDD ☐ UNITS _____

SPECIAL INSTRUCTIONS:

Geosyntec Specific EDD

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment: Media ID #	Sampling Equipment: Canister Size 6L or 1L	Sampling Equipment: Flow Controller ID #	Start Sampling Information: Date	Start Sampling Information: Time (24 hr clock)	Start Sampling Information: Canister Pressure ("Hg)	Stop Sampling Information: Date	Stop Sampling Information: Time (24 hr clock)	Stop Sampling Information: Canister Pressure ("Hg)	TO-15				
1	SV-01-5-083016	SV-01	SV	LC369	1L	A71	8/30/2016	10:54	-26.07	8/30/2016	10:59	-4.73	x				
2	SV-01-5-083016-DUP	SV-01	SV	LC1032	1L	A493	8/30/2016	10:54	-26.18	8/30/2016	10:59	-5.43	x				

Relinquished by: (Signature) Michael J Cronin	Received by: (Signature/Affiliation) Tiega Adeyeye	Date: 09/12/16	Time: 1246
Relinquished by: (Signature) Tiega Adeyeye	Received by: (Signature/Affiliation) Dannyle GEL	Date: 9/12/16	Time: 1630
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

Return to Contents

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WORK ORDER NUMBER: 16-09- 0766

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: Geosyntec Consultants

DATE: 09 / 12 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): _____°C (w/ CF): _____°C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☑ Air ☐ Filter Checked by: 659

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☑ N/A Checked by: 659

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number:** _____**)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☑ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, Labeled/Checked by: 836

s = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH Reviewed by: JD

Return to Contents

APPENDIX I

DATA VALIDATION SUMMARY

Crystal Geyser
Stage 2A Data Validation Summary

10/13/16

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Reports 16-08-1807, Supplemental Report 1, 16-09-0004, 16-09-0242, 16-09-0110, 16-09-0112, 16-09-0478, 16-09-0590, 16-09-0591 and 16-10-0502

Water samples associated with the laboratory reports referenced above were analyzed for volatile organic compounds (VOCs) by EPA methods 5030C/8260B, semivolatile organic compounds (SVOCs) by EPA methods 3510C/8270C, calcium, magnesium and sodium by EPA method 200.7, total and dissolved metals (including mercury) by EPA methods 3020A/3005A/6020 and 7470A, total alkalinity and bicarbonate alkalinity as $CaCO_3$ by Standard Method 2320B, ammonia nitrogen by Standard Method 4500-NH3 B/C, nitrate-nitrite as N by Standard Method 4500-NO3 E, anions (chloride and sulfate) by EPA method 300.0, total phosphorus by Standard Method 4500 B/E, total phosphate by Standard Method 4500 B/E, total kjeldahl nitrogen (TKN) by Standard Method 4500-N Org B, total nitrogen by calculation, total dissolved solids (TDS) by Standard Method 2540 C and surfactants (methylene blue active substances, MBAS) by Standard Method 5540C.

Solid samples in laboratory report 16-08-1807, Supplemental Report 1 were analyzed for total and dissolved California (CA) Title-22 metals (CAM-17) metals by EPA methods 3050B/6010B and 7471A, SVOCs by EPA methods 3545/8270C and VOCs by EPA methods 5030C/8260B.

The samples were analyzed by Eurofins/Calscience, Garden Grove, California.

The data were validated at an EPA Stage 2A data validation level, based on the USEPA National Functional Guidelines for Superfund Organic Methods Data Review, August 2014 (EPA 540-R-014-002), USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, August 2014 (EPA 540-R-013-001), as well as by the pertinent methods referenced by the data package and professional and technical judgment.

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives, with the following exceptions.

The nondetect results of VOCs in samples SS-01-160823 and SS-02-160823 are R qualified as rejected, based on professional and technical judgment and gross exceedance (more than two times) of the VOC extraction holding time of 48 hours.

Due to matrix spike/matrix spike duplicate (MS/MSD) recoveries less than 20%, the nondetect result of vinyl acetate in sample SS-02-160823 was R qualified as rejected.

The remaining qualified data should be used within the limitations of the qualifications.

The chain of custody (COC) forms in the reports did not list total nitrogen; however, this analysis was reported.

The COCs in reports 16-09-0478, 16-09-0590 and 16-09-0591 did not list collection times for the trip blanks. The laboratory assigned collection times of 00:00 to these trip blanks.

The COC in report 16-08-1807, Supplemental Report 1 listed only metals analyses for the solid samples. Additional analyses (VOCs and SVOCs) were reported for the solid samples, based on email communications from the client included in the laboratory report.

There were two copies of the COCs in reports 16-09-0004 and 16-09-0478. The second copy in report7s 16-09-0004 was corrected to remove 'lab-filtered' from the total metals request for analysis. The second copy in report 16-09-0478 was unreadable.

The Calscience sample receipt checklist in report 16-09-0004 indicated that the aliquots for total metals for samples MW-14-W-18.5-160830 and MW-15-W-24-160830 were received unpreserved. Additional information from the laboratory indicated that acid was added to these two samples and they were digested more than 24 hours after the acid addition. The pH of these two samples at digestion were <2. No qualifications were applied to the data.

The Calscience sample anomaly form in report 16-09-0110 indicated that the 1-liter SVOC bottle for sample MW-03-090116 was received broken; therefore, SVOCs were not reported for this sample. In addition, broken bottles were received for samples MW-15-090116 (total phosphate) and QCTB-090116-2 (VOCs). Additional bottles were available for these two samples and the results were reported. In addition, the COC did not indicate total phosphate analysis of sample MW-03-090116. An email from the client requesting total phosphate analysis of this sample was included in the laboratory report.

The Calscience sample anomaly form in report 16-09-0478 indicated that an equipment blank was collected with the samples, but not listed on the COC, QCEB-02-090616. The equipment blank was analyzed for the full suite of water analyses.

The Calscience sample anomaly form in report 16-09-0590 indicated that one vial of sample MW-11-090816 was received broken. Sufficient volume for this sample was available for the analyses requested.

Incorrect error corrections were performed on the COCs in reports 16-08-1807, Supplemental Report 1 and 16-09-0110, instead of single line through, initialing and dating the corrections.

The samples were prepared and analyzed within the method specified holding times, with the following exceptions.

The VOCs soil analyses for the samples in report 16-08-1807, Supplemental Report 1, were requested and prepared six days after sample collection. Therefore, based on professional and technical judgment and gross exceedance (more than two times) of the VOC extraction holding time of 48 hours, the nondetect results of VOCs in samples SS-01-160823 and SS-02-160823 were R qualified as rejected.

The MBAS analyses of samples MW-09-090716 and MW-13-090716 were performed several hours outside the 48-hour holding time. Therefore, based on professional and technical judgment, the

nondetect results of MBAS in these two samples were UJ qualified as estimated less than the reporting limit (RL).

The results for the laboratory method blanks, equipment blanks, trip blanks, laboratory control samples (LCSs), LCS/LCS duplicate (LCSD) pairs, MS/MSD pairs, laboratory duplicates and surrogates were within the laboratory specified acceptance criteria, with the following exceptions.

An MS/MSD was reported for mercury using sample B-02-W-15.5-160823-DUP. The relative percent difference (RPD) result was high and outside the laboratory specified acceptance criteria. Therefore, the concentration of mercury in sample B-02-W-15.5-160823-DUP was J qualified as estimated.

An MS/MSD was reported for VOCS using sample SS-02-160823. One or both of the recoveries of the following compounds were low and outside the laboratory specified acceptance criteria: Bromobenzene, n-butylbenzene, 4-chlorotoluene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, naphthalene, 1,2,3-trichlorobenzene and 1,2,4-trichlorobenzene. Therefore, the nondetect results of these compounds in sample SS-02-160823 were UJ qualified as estimated less than the RLs. The MS/MSD recoveries of vinyl acetate were 7% and 1%, both outside the laboratory specified acceptance criteria and less than 20%. Therefore, the nondetect result of vinyl acetate in sample SS-02-160823 was R qualified as rejected. The MSD recovery and RPD of acetone were high and outside the laboratory specified acceptance criteria. Since acetone was not detected in sample SS-02-160823, no qualifications were applied to the data.

The LCS recovery of vinyl acetate in batch 160830L005 was low and outside the laboratory specified acceptance criteria. Therefore, the nondetect results of vinyl acetate in the associated samples were UJ qualified as estimated less than the RLs.

An MS/MSD was reported for chloride and sulfate using sample MW-03-090116. The chloride recoveries were low and outside the laboratory specified acceptance criteria. Therefore, based on professional and technical judgment, the concentration of chloride in this sample was J- qualified as estimated with a low bias.

The LCS/LCSD recoveries of 3,3-dichlorobenzidine in batches 160909L01 and 160912L01 were high and outside the laboratory specified acceptance criteria. Since this compound was not detected in the associated samples, no qualifications were applied to the data.

An MS/MSD was reported for chloride and sulfate using sample MW-09-090716. The sulfate recoveries were high and outside the laboratory specified acceptance criteria. Therefore, based on professional and technical judgment, the concentration of sulfate in this sample was J+ qualified as estimated with a high bias.

The LCS recovery of bromoform was low and outside the laboratory specified acceptance criteria in batch 160910L024. Therefore, based on professional and technical judgment, the nondetect results of bromoform in the associated samples were UJ qualified as estimated less than the RL.

The LCS recovery of vinyl acetate was low and outside the laboratory specified acceptance criteria in batch 160909L045. Therefore, based on professional and technical judgment, the nondetect results of vinyl acetate in the associated samples were UJ qualified as estimated less than the RL.

The LCS recovery of pyridine was low and outside the laboratory specified acceptance criteria in batch 161007L11A. Therefore, based on professional and technical judgment, the nondetect result of pyridine in the associated sample was UJ qualified as estimated less than the RL.

LCSs were not analyzed with the TKN data. Therefore, based on professional and technical judgment and no accuracy data, the concentrations of TKN in the samples were J qualified as estimated and the nondetect results were UJ qualified as estimated less than the RL.

An equipment blank was collected on 9/6/16 and reported in lab report 16-09-0478. Sodium was detected at a concentration greater than the RL, 0.882 mg/L. Since the sodium concentrations in the associated samples were greater than ten times the equipment blank concentration, no qualifications were applied to the sodium data.

An equipment blank was collected on 9/7/16 and reported in lab report 16-09-0590. Calcium and magnesium were detected at concentrations greater than the RLs, 2.35 mg/L and 0.224 mg/L, respectively. Therefore, the concentrations of calcium and magnesium in the associated samples greater than the equipment blank concentrations and less than ten times the equipment blank concentrations were J+ qualified as estimated with high biases; the concentrations of calcium in the associated samples greater than the RL and less than the equipment blank concentration were U qualified as not detected at the reported concentrations.

It was noted that equipment blanks were not collected with the samples in reports 16-08-1807, Supplemental Report 1 and 16-09-0004.

The total metals concentrations were greater than the dissolved metals concentrations, with the following exceptions.

Dissolved antimony was detected in samples MW-15-W-24-160830, MW-12-W-11.5-160829 and MW-12-W-8-160829 and total antimony was not detected. Dissolved vanadium and zinc were detected in sample MW-14-W-18.5-160830 and total vanadium and zinc were not detected. The laboratory noted that the total metals analyses were reported from 1:10 dilutions of these samples due to matrix interferences; the dissolved metals analyses were reported from undiluted samples. Therefore, the nondetect total antimony, vanadium and zinc results in the samples were elevated due to dilutions to concentrations greater than the dissolved metals concentrations. No qualifications were applied to the data, based on professional and technical judgment.

Dissolved antimony was detected sample MW-15-W-14-160830 and total antimony was not detected. Therefore, based on professional and technical judgment, the concentration of dissolved antimony was J qualified as estimated and the nondetect result of total antimony was UJ qualified as estimated less than the RL in sample MW-15-W-14-160830.

The total molybdenum concentration in sample MW-14-W-18.5-160830 was less than the dissolved molybdenum concentration. Therefore, due to an RPD >30% and professional and technical judgment, the total and dissolved molybdenum concentrations in sample MW-14-W-18.5-160830 were J qualified as estimated.

The total zinc concentration in sample MW-03-090116 was less than the dissolved zinc concentrations. No qualifications were applied to the data, since the RPD between the results was less than 30%.

The total antimony, arsenic and molybdenum concentrations in samples MW-04-090816 and MW-04-090816-DUP were less than the dissolved antimony, arsenic and molybdenum concentrations. The total arsenic, molybdenum and vanadium concentrations in sample MW-05-090816 were less than the dissolved arsenic, molybdenum and vanadium concentrations. The total arsenic concentration in sample MW-08-090716 was less than the dissolved arsenic concentration. The total arsenic, molybdenum, nickel and vanadium concentrations in sample MW-13-090716 were less than the dissolved arsenic, molybdenum, nickel and vanadium concentrations. No qualifications were applied to the data for these samples, since the RPDs between the results were less than 30%.

The total arsenic, barium, molybdenum and zinc concentrations in sample MW-10-20161006 were less than the dissolved arsenic, barium, molybdenum and zinc concentrations. No qualifications were applied to the data for this sample, since the RPDs between the results were less than 30%.

Three field duplicates, B-02-W-15.5-160823-DUP, MW-04-090816-DUP and OW-8US-090616-DUP, were collected with the samples in reports 16-08-1807, Supplemental Report 1, 16-09-0590 and 16-09-0478. Acceptable precision (relative percent difference, RPD $\leq$30%) was demonstrated between the field duplicates and the original samples, B-02-W-15.5-160823, MW-04-090816 and OW-8US-090616-DUP, respectively, with the following exceptions.

The RPDs for dissolved antimony, vanadium and zinc in field duplicate pair B-02-W-15.5-160823/B-02-W-15.5-160823-DUP were greater than 30%. Therefore, based on professional and technical judgment, the concentrations of dissolved antimony, vanadium and zinc in this field duplicate pair were J qualified as estimated.

Dissolved zinc was detected in the original sample but not in the field duplicate in field duplicate pair MW-04-090816/MW-04-090816-DUP, resulting in a non-calculable RPD between the results. Therefore, based on professional and technical judgment, the concentration of dissolved zinc was J qualified as estimated and the non-detect result was UJ qualified as estimated less than the RL in the field duplicate pair.

Dissolved selenium was detected in the field duplicate but not in the original sample in field duplicate pair OW-8US-090616/OW-8US-090616-DUP, resulting in a non-calculable RPD between the results. Therefore, based on professional and technical judgment, the concentration of dissolved selenium was J qualified as estimated and the non-detect result was UJ qualified as estimated less than the RL in the field duplicate pair.

Respectfully submitted by: Reviewed by:

Mary Tyler
Geosyntec Consultants
10/13/16

Julia K. Caprio
Geosyntec Consultants
10/14/16

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference
QC-Quality Control

Crystal Geyser
Stage 2A Data Validation Summary

10/3/16

Summary of the Stage 2A Data Validation of BC Laboratories Work Orders 1624332, 1624806, 1625015 and 1625972

The water samples were analyzed for total coliform and fecal coliform by Standard Methods 9221B and 9221E by BC Laboratories, Inc., Bakersfield, California.

The data were validated at an EPA Stage 2A data validation level. The data were reviewed based on USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, August 2014 (EPA 540-R-013-001), as well as by the pertinent method referenced by the data package and professional and technical judgment.

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data are usable for meeting project objectives.

The chain of custody (COC) forms were not included in the laboratory reports; copies of the COCs sent to the laboratory were sent by the client to the data validator.

The samples were analyzed within the 24-hour holding time specified by the method for non-potable water for non-compliance purposes.

The positive and negative control results were not included in the laboratory reports; they were sent by the client to the data validator. The results were within the laboratory specified acceptance criteria.

Two field duplicate samples, OW-8US-090716-DUP and MW-04-090816-DUP, were collected with the samples in reports 1624806 and 1625015, respectively. Acceptable precision (relative percent difference, RPD $\leq$30%) was demonstrated between the field duplicates and the original samples, OW-8US-090716 and MW-04-090816, respectively. The RPDs between the results were 0%.

Respectfully submitted by:

Mary Tyler
Geosyntec Consultants
10/3/16

Reviewed by:

Julia K. Caprio
Geosyntec Consultants
10/14/16

Crystal Geyser
Stage 2A Data Validation Summary

10/3/16

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Report 16-09-0766

Air samples associated with the laboratory report referenced above were analyzed for volatile organic compounds (VOCs) by EPA method TO-15. The samples were analyzed by Eurofins/Calscience, Garden Grove, California.

The data were validated at an EPA Stage 2A data validation level and were reviewed based on the USEPA National Functional Guidelines for Superfund Organic Methods Data Review, August 2014 (EPA 540-R-014-002), as well as by the pertinent method referenced by the data package and professional and technical judgment.

Based on this Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitations of the qualification.

The samples were analyzed within the method specified holding time.

The results for the laboratory method blanks, laboratory control samples/laboratory control sample duplicate (LCS/LCSD) pairs and surrogates were within the laboratory specified acceptance criteria.

A field duplicate sample, SV-01-5-083016-DUP, was collected. Acceptable precision (relative percent difference, RPD $\leq$30%) was demonstrated between the field duplicate and the original sample, SV-01-5-083016, with the following exceptions.

The RPD for acetone was >30%. Therefore, based on professional and technical judgment, the concentrations of acetone in the field duplicate pair were J qualified as estimated. In addition, 2-butanone, trichloroethene and vinyl acetate were detected in one sample, but not in the other in the field duplicate pair, resulting in noncalculable RPDs between the results. Therefore, based on professional and technical judgment, the concentrations of these compounds were J qualified as estimated and the non-detect results were UJ qualified as estimated less than the RLs.

Respectfully submitted by:	Reviewed by:
Mary Tyler	Julia Caprio
Geosyntec Consultants	Geosyntec Consultants
10/3/16	10/12/16

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other

RPD-relative percent difference
QC-Quality Control