Prepared for

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

PHASE 2 SITE GROUNDWATER INVESTIGATION REPORT

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

Prepared by

Geosyntec consultants

engineers | scientists | innovators

924 Anacapa Street, Suite 4A
Santa Barbara, California 93105

14 August 2015

PHASE 2 SITE GROUNDWATER INVESTIGATION REPORT

Olancha Spring Water Bottling Facility

1210 South U.S. Highway 395
Olancha, California

Prepared for

Crystal Geyser Roxane

14 August 2015

Mark Grivetti, P.G., C.E.G., C.Hg.
Geosyntec Consultants
Principal Hydrogeologist

Ryan Smith, P.G., C.Hg.
Geosyntec Consultants
Project Geologist

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

EXECUTIVE SUMMARY

The Phase 2 Site investigation was conducted in general accordance with the RWQCB's Amended Investigative Order R6V-2014-0063A1. The Phase 2 Site investigation was conducted to further evaluate the soil, soil vapor, and groundwater conditions in the areas around the Arsenic Pond (AP), the East Pond (EP), and the Fire Pond (FP). Additionally, the investigation was completed to evaluate groundwater gradient and flow patterns in the upper-most shallow groundwater aquifer.

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 as part of the Phase 2 Site investigation. Soil samples results indicate that arsenic, cobalt, mercury, and molybdenum were detected at concentrations exceeding one or more published screening level. Of the metals detected in soil, only detections of arsenic and molybdenum exceeded the California median background for soil concentrations (UCR/DTSC, 1996). The distribution and concentrations of the detected metals and inorganic compounds indicate that there have been no significant impacts to soil due to waste water discharges at the Site.

Soil vapor sampling indicates low detections of volatile organic compounds (VOCs) above the laboratory minimum reporting limit (MRL). All soil vapor sample results were much lower than the most stringent screening levels for even 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 in the area around the valve distribution box.

The groundwater gradient in the area of the EP and AP was calculated to be towards the northeast at a magnitude of approximately 0.005 feet/ft. The gradient was not calculated for the area around the FP, but the groundwater elevations measured in well MW-01 and MW-02 near the FP indicate that there is a mounding effect caused by the Spring Line fault. MW-02 is installed directly west and adjacent to the inferred trace of the Spring Line fault. Groundwater flow on the west side of the Spring Line fault has been investigated in previous phases of work at the Site and has been shown to flow towards the east with a mounding effect on groundwater flow (Dames and Moore, 1991). The mounding effect causes groundwater to flow to the ground surface in areas of the Site from which the springs are produced.

The results of the Phase 2 investigation indicate that the primary groundwater constituents of concern in areas around the AP, EP, and FP, are metals. Antimony, arsenic, barium, and lead, were detected at concentrations exceeding MCLs of 6, 10, 1,000, and 15 micrograms per liter (µg/L), respectively. Antimony was only detected in the sample collected from MW-04, while arsenic was detected in all groundwater samples collected except MW-08. The detections of barium and lead that exceeded MCLs of 1,000 and 15 µg/L, respectively, were only found in the groundwater grab

sample from AP-4 only. Arsenic was detected at elevated concentrations exceeding the MCLs in wells MW-04 and MW-05. These wells are located approximately 100 and 500 feet down-gradient of the AP along the northeasterly groundwater flow path. Other compounds analyzed were not detected above their respective primary or secondary MCLs.

It is important to note that elevated arsenic is known to be a naturally occurring element in the soils and in deeper groundwater at concentrations ranging from 16 to 28 µg/L[1] based on regular water quality sampling conducted at the Site production wells. The production wells are located west of the Spring Line fault. It is assumed that naturally occurring arsenic concentrations in groundwater increase east of the Spring Line fault reaching very high levels beneath Owens Lake. Shallow groundwater sampling (< ~10 feet) by others beneath Owens Lake documented arsenic concentrations in the range of 50 – 150 mg/L (Levi et al, 1999). It is likely that these elevated concentrations are associated with the fine grained lacustrine deposits. Thus, as the presence of these layers increases eastward, it is expected that naturally occurring arsenic concentrations will likewise increase. However, this expected increase is a general trend and will be more dependent on the volume of fine grained lacustrine sediment encountered in each area.

Based on data collected during this investigation, it appears that there has been a release from the AP. The elevated arsenic concentrations detected in wells MW-04 and MW-05 are found proximal and down-gradient of the AP, but the extent has not been fully delineated in the down-gradient direction. Therefore, additional investigation of groundwater quality is recommended down-gradient of well MW-05 to further delineate the arsenic concentrations.

Based on the laboratory analytical results of the Phase 2 soil, soil vapor, and groundwater samples, the analytical schedule for future quarterly groundwater sampling of the monitoring wells is proposed to be reduced to:

- Dissolved CAM 17 metals; and
- General minerals including sodium, calcium, magnesium, chloride, bicarbonate, sulfate, and total dissolved solids.

Additionally, based on the low detections of VOCs in the SVP, is it proposed that additional soil vapor sampling is not necessary for this investigation.

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

1.0 INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec), on behalf of Crystal Geyser Roxane (CGR), is pleased to present the following *Phase 2 Site Groundwater Investigation Report* (Phase 2 Report) for the CGR Spring Water Bottling Facility (Site) located at 1210 South U.S. Highway 395, near Olancha, California.

The Phase 2 groundwater investigation was performed to address the requirements of the Lahontan Regional Water Quality Control Board (RWQCB) Amended Investigative Order Number R6V-2014-0063A1 (Amended Order) dated May 8, 2015. The Amended Order was issued by the RWQCB based on the results of the Phase 1 Site groundwater investigation summarized in the *Phase 1 Site Groundwater Investigation Report* dated February 16, 2015 (Geosyntec, 2015a). The Amended Order required additional soil, soil vapor, and groundwater investigation to further assess the extent of impacts to soil, soil vapor, and groundwater based on the Site's historical and current water discharges.

The scope of work for the Phase 2 investigation was presented in the *Site Groundwater Investigation Work Plan* (Plan) dated October 17, 2014 (Geosyntec, 2014), and the *Phase 2 Site Investigation Work Plan Addendum* (Plan Addendum) dated May 29, 2015 (Geosyntec, 2015b). The Plan Addendum was approved by the RWQCB in correspondence dated June 29, 2015.

The objectives of the Phase 2 scope of work were:

- Evaluate potential impacts to soil based on Site water discharges as required by the RWQCB;
- Evaluation of potential leakage from the distribution valve box collection through analysis of soil, soil vapor, and groundwater grab samples from boring AP-4; and
- Evaluation of groundwater quality in areas around the Fire Pond (FP), Arsenic Pond (AP), and East Pond (EP), through analysis of groundwater samples from nine groundwater monitoring wells.

The Phase 2 Report has been organized as follows:

- Section 1. – *Introduction.*
- 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 Hydrogeologic Investigations*. 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, flume installation, piezometer installation, aquifer testing, 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.* 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).

- Section 8.0. - *Conclusions and Recommendations*. This section provides conclusions regarding potential impacts based on the investigative data generated to date and the recommendations for additional Site investigative work.

- Section 9.0. - *References*

2.0 GENERAL SITE INFORMATION

2.1 General 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.

CGR recently 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 43 residences in the town of Cartago. Based on a Driller's Well Report CMW-2 is installed to a depth of approximately 160 feet and is screened or perforated between depths of 115 to 150 feet. Current static groundwater levels in CMW-2 are reported to be at approximately 16 to 17 ft bgs and dynamic pumping levels in the well are reported to be at approximately 30 ft bgs.

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. **Figure 2** shows the location of the active domestic wells in Cartago. These wells are all located a minimum of approximately 3,500 feet north of the Site.

2.2 Summary of Site Wells

Production wells and observation wells for the Site and the surrounding area are shown on **Figure 2**. CGR has installed a total of 7 groundwater production wells at the Site (CGR-1 through CGR-7) and 5 groundwater observation wells (OW-7U, OW-7M, OW-8U, OW-8US, and OW-8D). Wells CGR-2 and CGR-7 are used for bottled water production, and wells CGR-3 and CGR-4 are used for domestic or industrial purposes. Other production wells are currently inactive.

CGR installed three production wells (CGR-8 through CGR-10) on the Cabin Bar Ranch property. Additionally, there are five inactive production wells, 15 piezometers, and three monitoring wells previously installed at the Cabin Bar Ranch. Eight wells (EW-1 through EW-8) were installed at the Site prior to CGR starting operations at the Site. These previous eight wells are currently inactive. As summarized in Dames & Moore *Phase II – Water Resources Investigation, Crystal Geyser-Roxane, Bottling Facility* (Dames and Moore, 1991), there are very little data available for these eight wells.

Available completion depth and screen interval information for the production wells and observation wells is taken from the U*pdated Hydrogeologic Evaluation for Crystal Geyser Roxane, Cabin Bar Ranch*, (RCS, 2012) and is presented in **Appendix A**.

3.0 PREVIOUS HYDROGEOLOGIC SITE STUDIES

There have been five previous hydrogeological Site studies relating to the CGR spring water bottling operations. A listing of the report references in chronological order is found below. Electronic copies of these reports (excepting the first listed report) were provided with the *Investigation Work Plan*, (Geosyntec, 2014) dated October 17, 2014.

- *Phase I – Water Resources Investigation, Crystal Geyser-Roxane, Bottling Facility*, Inyo County, California, February 19, 1990. Completed by Dames and Moore. Report is referenced in subsequent reports, but a copy of the report is not available.

- *Phase II – Water Resources Investigation, Crystal Geyser-Roxane, Bottling Facility*, Inyo County, California, January 20, 1991. Completed by Dames and Moore.

- *Report – Water Supply Well CGR-2, Crystal Geyser Roxane*, Olancha, California, March 31, 1993. Completed by Dames and Moore.

- *Report – Water Supply Wells CGR-4, CGR-5 and CGR-6 Crystal Geyser-Roxane*, Olancha, California, April 21, 1995. Completed by Dames and Moore.

- *Test Well Installation and Hydrogeology Report*, Cabin Bar Ranch, Olancha, California. February 7, 2011. Completed by Geosyntec Consultants.

Additionally, a screening level Site investigation was conducted in November 2014 in accordance with the RWQCB Investigative Order. The *Phase 1 Site Groundwater Investigation Report* (Geosyntec, 2015b) summarized the results of the Phase 1 investigation. This investigation was completed to evaluate the groundwater conditions in the areas around the 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 10 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 AP, EP, and FP, for characterization and comparison to groundwater quality.

The results of the Phase 1 Investigation indicated that the primary constituents of concern in the groundwater in the investigation areas of the AP, EP, and FP, are metals. Of the metals detected, the primary metal of concern exceeding the 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 AP.

Based on the data collected during the Phase 1 Site groundwater investigation, installation of groundwater monitoring wells was recommended for the areas surrounding the AP, EP, and FP, to verify the Phase 1 screening data. The Plan Addendum dated May 29, 2015 (Geosyntec, 2015a) was approved by the RWQCB in correspondence dated June 29, 2015.

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 Geohydrology

Based on the previous investigations, (see Section 3.0), the following description provides the basis of understanding for the Site geohydrology. Further discussion of the Site geohydrology based on the results of the Phase 2 investigation is presented in Section 6.3.1.

The most important water bearing formation in the vicinity of the Site is alluvium consisting of sands and gravels derived from erosion of the surrounding mountains. 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 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 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 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.

Four monitoring wells, OW-8U, OW-8US, OW-8D and OW-9U are 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 is artesian and the well screens were not installed in the upper-most portion of the aquifer, and 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 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 was calculated to be 0.015 to the east (Geosyntec, 2011). Additional discussion of the shallow groundwater gradient in the Phase 2 investigation areas is discussed further in Section 6.3.1.

There is no known use of groundwater in areas down-gradient of the Site. Additionally, production wells in the Cartago area (>3500 feet to the north) do not produce groundwater which originates from the Site.

5.0 FIELD METHODOLOGY

The following sections describe the general procedures for the Phase 2 field work. The Phase 2 boring and well locations are displayed on **Figure 3**. Field development and groundwater sampling logs including daily field instrument calibration logs are provided in **Appendix B**.

5.1 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).

5.2 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 C**.

5.3 Drilling and Soil Logging

The soil boring (AP-4) and monitoring wells were installed using a hollow-stem auger (HSA) drill rig. A standard operating procedure for HSA drilling, well installation, well development, and sampling was provided in an appendix of the *Investigation Work Plan*.

A total of nine, 2-inch diameter Schedule 40 PVC groundwater monitoring wells and one soil vapor probe (SVP) were installed by Gregg Drilling and Testing, Inc. between June 22 and June 26, 2015. An 8-inch diameter hollow stem auger was used for installation of the monitoring wells and SVP. Groundwater monitoring wells were generally installed with a screen length of approximately 15 feet (approximately 10 feet screen installed below the water table and 5 feet of screen installed above the water table). 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 2 foot thick hydrated bentonite pellets above the sand filter pack and bentonite grout to the ground surface. In locations where the groundwater table was shallower than 10 ft bgs, a 15 foot long well screen was installed at a minimum depth of 20 ft bgs, so that a minimum of 4 feet of bentonite seal material could be installed as a surface seal. The monitoring wells were completed with three-foot tall monument well boxes set in a 4x4 foot concrete pad at the ground surface as required by the County of Inyo Environmental Health Department permit requirements.

During drilling, soil samples were collected every five feet bgs using a California Modified split-spoon sampler. The field geologist prepared a boring log describing lithology and construction details the groundwater monitoring wells and SVP. Soil

samples were logged in general accordance with the Unified Soil Classification System under the direct supervision of a licensed Professional Geologist.

5.4 Well Development and Sampling

Between June 28 and July 1, 2015, 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 10 NTUs, water quality parameters had stabilized, and no suspended sediment was visible in the discharge water. An exception to this was well MW-7. Following surging and bailing, this well went dry after 2-3 gallons were pumped using the submersible pump. The well was allowed to recharge for approximately 3 hours and was again attempted to finish development using the electric submersible pump. The well was again pumped dry after 2-3 gallons. The turbidity remained elevated and water quality parameters did not stabilize due to the low groundwater yield.

Groundwater samples were collected from the monitoring wells, and a grab groundwater sample was collected from boring AP-4. The groundwater well samples were collected using the micro-purge or low-flow purge technique as described in the *Investigation Work Plan*. The grab groundwater sample collected from AP-4 was collected by installing a temporary 2-inch diameter well and collecting a sample using a disposable bailer. All water samples were field filtered for sediment. 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 manufacturers specifications. Additionally, total and residual chlorine were analyzed in the field using a colorimeter.

A survey of the position and top of casing elevation of the groundwater monitoring wells was conducted following installation by Triad/Holmes Associates, Inc., a licensed professional surveyor.

5.5 Soil Vapor Probe Sampling

The SVP was purged and sampled 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, 2012). SVP sampling occurred after subsurface conditions equilibrated a minimum of 48 hours after installation.

During purging of the SVP, the soil vapor was screened for volatile organic compounds (VOCs) using a photoionization detector (PID) calibrated to standard isobutylene calibration gas. 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. The SVP was purged and sampled on July 8, 2015, by applying a vacuum to the SVP using a vacuum chamber and vacuum pump. The general soil gas 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 soil vapor probe screen.
- During purging soil vapor was collected in a Tedlar® bag and screened for VOCs using a photoionization detector (PID) calibrated to isobutylene.
- After purging and stabilization of field monitoring parameters, soil vapor samples for laboratory analysis were collected in a 1-L Summa canisters. 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.

5.6 Laboratory Analytical Schedule

The soil and groundwater samples were analyzed for the following parameters by Eurofins Calscience Environmental Laboratory:

- 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 5540;
- 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;

- Soil samples were analyzed for pH using SM 4500.

Groundwater samples were analyzed for total and fecal coliform using SM 8221B and were sent to BC Laboratories in Bakersfield California due to the extremely short hold time of 8 hours and due to the remote location of the Site.

5.7 Investigative Derived Waste

Soil cuttings were transferred to a lined roll-off bin and well development, and purge/decontamination water was transferred to a holding tank and stored on-Site pending laboratory analysis and profile acceptance. A composite sample of both the soil cuttings and the purge/decontamination water were collected and analyzed for total petroleum hydrocarbons using EPA Method 8015M, Title 22 Metals using EPA Methods 6010B/7470A, and VOCs using EPA Method 8260B. Based on the results of the waste profile samples, a non-hazardous waste profile was accepted at the licensed waste disposal facility. The soil bin was transported to Soil Safe of California in Adelanto, California and the water was transported to Crosby and Overton, in Long Beach California on August 6, 2015. The transportation waste manifests for the soil and groundwater transported off the Site is included as **Appendix D**.

6.0 INVESTIGATION RESULTS

The following sections present the results of the Phase 2 investigation. A summary of the soil sample analytical results are presented in **Tables 1 and 2**. The soil vapor sample results are presented in **Table 3**. A summary of the groundwater well construction details and groundwater elevations on July 7, 2015, are presented in **Table 4**. The stabilized field groundwater quality parameter during sampling are presented in **Table 5**. Groundwater analytical results are presented in **Tables 6 through 8**. Lithologic logs and well completion logs are presented in **Appendix E**. The laboratory analytical reports for soil, soil vapor, and groundwater samples are presented in **Appendix F**.

6.1 Soil Results

6.1.1 Soil Classification and Field Data

In borings MW-01 and MW-02 the soil types encountered generally consisted of interbedded layers of light yellowish brown, fine to coarse grained, well graded sand and silty sand from ground surface to approximately 35 feet below ground surface (bgs). In boring MW-2 a sandy silt was found interbedded with the sands. The soils classified in these borings were interpreted to be alluvial fan sediments derived from erosion of the Sierra Nevada Mountains to the west of the Site. Both MW-1 and MW-2 are installed in locations west of the Spring Line fault.

In borings MW-03, MW-04, MW-05, MW-08 and MW-09, completed in locations around the AP, the soil types encountered generally consisted of light yellowish brown to light olive brown, loose, fine to coarse grained, well graded sand with trace gravel, from ground surface to depths ranging from approximately 8 to 15 ft bgs. Underlying the well graded sand were fine grained sediments consisting of moderate to highly plastic, dark gray to dark greenish gray, soft clays and silts, interbedded with poorly graded and well graded sands to the total depth of the borings (22-24 ft bgs). The soil sequence observed in these borings is interpreted to be recent alluvial deposits at the former lake shore of the dry Owens Lake interfingered with fine-grained lacustrine sediments of silts and clays. These borings were completed east of the Spring Line fault.

In borings MW-06 and MW-07, completed in locations around the EP, the soil types encountered consisted of grayish brown to light yellowish brown, fine to very coarse, well graded sand with trace rounded gravel from ground surface to approximately 23 ft bgs. The soil encountered in these borings are interpreted to be a slightly thicker sequence of alluvial deposits at the dry Owens Lake shore line. These borings were also completed east of the Spring Line fault.

No indications of contamination were noted such as staining, discoloration, or odors during soil logging. Photoionization (PID) readings collected in the field ranged from 0.0

to 4.5 parts per million volume (ppmv), with the highest PID reading recorded in MW-06 at approximately 20 ft bgs. The borehole logs are presented in **Appendix E**.

6.1.2 Soil Sample Analytical Results

A total of 10 soil samples and one duplicate sample were submitted for laboratory analyses. The duplicate soil sample was collected from boring AP-4. **Table 1** presents a summary of the detected metals and **Table 2** presents a summary of inorganic constituents in soil samples. Only detections above the laboratory minimum reporting limits (MRLs) are presented in tables; all other results were not detected above laboratory MRLs.

Arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium, and zinc were detected above the laboratory MRL in one or more soil samples collected. Of these metals, arsenic, barium, chromium, cobalt, copper, vanadium, and zinc were the most prevalent with detections in all samples collected with the exception that arsenic was not detected above the laboratory MRL in the sample collected from boring MW-09.

The inorganic compounds detected above laboratory MRLs included alkalinity, ammonia, chloride, nitrate and nitrite, total nitrogen, and total Kjeldahl nitrogen, phosphate, total phosphorus, sulfate and TDS. Soil sample analytical reports are included as **Appendix F**.

6.2 Soil Vapor Sample Results

One primary sample and one duplicate soil vapor sample was collected from the SVP installed at boring AP-4. **Table 3** presents a summary of the detected VOCs in the soil vapor samples.

Field screening for VOCs using a PID was measured at 4.4 parts per million by volume (ppmv). The SVP was purged and sampled in general accordance with the procedures outlined in Section 5.5. The shut in tests and helium leak detection checks tests passed, indicating that there was no leakage in the sampling train or the seal for the SVP.

The samples from the SVP were sent to Eurofins Calscience Environmental Laboratory for analysis. Analytical results were reported as follows:

- The VOCs detected in 2-butanone, acetone, benzene, chloromethane, ethylbenzene, isopropyl alcohol, o-xylene, tetrachloroethene (PCE) and toluene.

- All other VOCs were not detected above the laboratory MRLs.

6.3 Groundwater Results

6.3.1 Groundwater Elevation Data

Groundwater level measurements were collected from the nine Site monitoring wells on July 6, 2015. The groundwater level monitoring data are presented in **Table 4**. Groundwater elevations ranged from 3,600.36 feet above sea level (ft asl) in well MW-05 to 3,625.93 ft asl measured in MW-02. Groundwater elevations in wells MW-01 and MW-02, located west of the Spring Line fault, are approximately 20 feet higher than the groundwater elevations measured in monitoring wells east of the Spring Line fault.

A groundwater elevation contour figure for July7, 2015, is presented in **Figure 4**. The groundwater flow direction is towards the northeast in the area beneath the AP and the EP. The groundwater gradient was calculated using the 3-point method, and was found to be approximately 0.005 feet/ft. In the area of the FP, the groundwater elevation at MW-02 was higher than the elevation at MW-01, suggesting groundwater flows to the southwest in this area. As previously mentioned, wells MW-01 and MW-02 are both located west of the Spring Line fault. MW-02 is located directly adjacent to and slightly west of the inferred trace of the Spring Line fault. Based on previous hydrogeologic investigations of the Site (Dames and Moore, 1991), groundwater west of the fault generally flows to the east, and the Spring Line fault is interpreted as a leaky boundary, such that groundwater will mound when it encounters the fault. This rise in groundwater associated with the Spring Line fault causes the spring seeps at the Site. The groundwater gradient calculated in previous investigations indicates that the flow direction and magnitude is similar on both sides of the Spring Line fault.

6.3.2 Groundwater Analytical Results

Ten groundwater monitoring well samples including the duplicate sample from MW-4 and one groundwater grab sample was collected as part of this investigation. The stabilized field groundwater quality monitoring parameters are presented on **Table 5**. Generally the oxidation reduction potential was negative, indicative of reducing conditions, for all wells except MW-01. Electrical conductivity and residual chlorine were highest in wells MW-04 and MW-05 and lowest in up-gradient wells MW-01 and MW-02.

The analytical results for the groundwater samples are summarized in **Tables 6 through 8** including the State of California Maximum Contaminant Levels (MCLs) for drinking water if available.

The following dissolved or total metals were detected in one or more of the Phase 2 groundwater samples:

- Antimony, arsenic, barium, chromium, copper, copper, lead, molybdenum, nickel, silver, vanadium, and zinc.

The following inorganic and general minerals constituents were detected above the laboratory MRL in one or more groundwater samples collected:

- Alkalinity (total), ammonia, calcium, chloride, magnesium, MBAS, nitrate and nitrite as nitrogen, total nitrogen, total Kjedahl nitrogen, phosphate, total phosphorus, sodium, sulfate , and TDS.

Fecal and total coliform were detected slightly above the laboratory MRL in wells MW-01, MW-03, MW-05, MW-07 and MW-08.

VOC and SVOCs were not detected above the laboratory MRL. Further discussion of the groundwater sample analytical results and comparison to MCLs is presented in Section 7.3.

6.4 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 below, 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 G**. Qualified data should be used within the limitations of the qualification. The following qualifications for soil samples were identified based on the Stage 2A data validation:

- The MBAS analyses in reports 15-06-1886 and 15-06-2190 were performed 8-9 days and 5 days after collection, respectively, more than twice the 48-hour holding time. Therefore, based on technical and professional judgment, the nondetect values of MBAS in the associated samples were R qualified as rejected.

- The total and fecal coliform results reported by Standard Methods 9221B in laboratory report 15-06-2190 were analyzed 8 and 9 days after collection; the total and fecal coliform results reported by Standard Methods 9221B in laboratory report 15-06-1979 were analyzed 4-6 days after collection; the total and fecal coliform results reported by Standard Methods 9221B in laboratory report 15-06-1886 were analyzed 6 days after collection. These analyses were more than twice the 24-hour holding time. Therefore, based on technical and professional judgment, the non-detect values of total and fecal coliforms in the associated samples were R qualified as rejected due to the gross exceedances of the holding time.

- The samples in laboratory report 15-06-2190 were received 5 days after collection, at 20.6 degrees centigrade. Based on technical and professional judgment, the non-detect values of the VOCs, SVOCs and TPH were R qualified as rejected.

- The MBAS results were R qualified as rejected due to the gross exceedances of the holding times (analyzed more than 2 times the holding time); therefore, no additional qualifications were applied to the data due to the temperature at laboratory receipt.

The following qualifications for groundwater samples were identified based on the Stage 2A data validation:

- The samples in laboratory report 15-06-2184 were received 3 days after collection, at 16.3 degrees centigrade. Based on technical and professional judgment, the non-detect values of the VOCs and SVOCs were R qualified as rejected.

- The samples in laboratory reports 1516292 and 1516465 were analyzed more than 16 hours after collection, which are gross exceedances of the holding time. Therefore, based on technical and professional judgment, the undetected values of total and fecal coliforms in the samples in laboratory reports 1516292 and 1516465 were R qualified as rejected and the concentrations were J qualified as estimated.

7.0 DATA EVALUATION

7.1 Soil Conditions

The soil types encountered surrounding the EP and the AP 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, including the Phase 1 borings, and OW-8US, and OW-8M.

Soil samples analytical results for metals were compared to a number of regulatory screening levels including the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (USEPA, 2014) based on an industrial site setting, for protection of groundwater for maximum contaminant levels (MCLs), for health risk based protection of groundwater, and based on the California median background soils (UCR/DTSC, 1996). Of the metals detected in the soil samples, arsenic, cobalt, mercury and molybdenum were detected at concentrations exceeding one or more of these screening levels. Furthermore, only detections of arsenic and molybdenum exceeded the California median background for soil concentrations. Molybdenum was detected above the laboratory MRL in the sample collected from boring MW-01 only. Additionally, this sample was collected at a depth of 15 ft bgs. MW-01 is located up-gradient of any waste water discharge outfall by more than 350 feet. Based on the depth and upgradient position from discharge outfalls, the molybdenum detected in the soil from MW-01 is interpreted as naturally occurring, and is not interpreted to be caused by waste water discharges from the Site.

Of the samples that exceeded the arsenic screening levels, the results from borings AP-4 and MW-03 slightly exceeded the California median background concentration of 2.7 micrograms per kilogram (mg/kg), while the result from MW-01 was greater than 10 times the California median background concentration. MW-01 is located up-gradient of any waste water discharge outfall by more than 350 feet. This soil sample was collected above the water table at a depth of 15 ft bgs. Based on the depth and upgradient position from discharge outfalls, the arsenic detected in the soil from MW-01 is interpreted as naturally occurring, and is not interpreted to be caused by waste water discharges from the Site. Furthermore, the distribution of the arsenic in soil samples does not support that potential releases from the AP or the valve distribution box have significantly contributed to the arsenic concentrations in the soil surrounding these features.

7.2 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 stringent screening levels for even residential vapor intrusion concerns. In addition, VOCs in soil and groundwater from surrounding locations did not have detections of VOCs. Based on the soil vapor sample results and the soil and groundwater sample results, there has not been a significant release of VOCs in the area around the valve distribution box.

7.3 Groundwater

The groundwater sample results were compared to the California Department of Public Health Department MCLs. Antimony, arsenic, barium, and lead, were detected at concentrations exceeding MCLs of 6, 10, 1,000, and 15 micrograms per liter (µg/L), respectively. Antimony was only detected in the sample collected from MW-04, while arsenic was detected in all groundwater samples collected. The detections of barium and lead that exceeded MCLs of 1,000 and 15 µg/L, respectively, were only found in the groundwater grab sample from AP-4. Barium and lead were not detected in samples collected down-gradient from the AP-4 location at wells MW-04 or MW-05, and therefore the extent of these metals appears to be very limited. Sulfate was detected at concentrations exceeding the secondary MCL of 250 mg/L in samples collected from MW-04, MW-05 and MW-09. TDS was detected at concentrations exceeding the secondary MCL of 500 mg/L in samples collected from MW-01, MW-04, MW-05, MW-06, MW-07 and MW-09.

A groundwater isoconcentration figure for arsenic is presented in **Figure 5**. As indicated on the figure, elevated arsenic levels were found in samples collected from MW-04 and MW-05, located approximately 100 and 500 feet down-gradient, respectively, from the AP. Based on the groundwater flow direction and the sample results, the extent of the elevated arsenic concentrations has not been delineated in the down-gradient direction near MW-04 and 05.

The arsenic concentrations found in other Phase 2 groundwater monitoring well samples, appear to be within the range of expected naturally occurring background concentrations. As noted in previous reports (Geosyntec, 2015a) and based on previous investigations at the Site, arsenic is known to be a naturally occurring element in the soil and groundwater at and near the Site. For example, Site production wells located west of the Spring Line fault, which produce from deeper zones, have arsenic in the approximate range of 16 to 28 µg/L[2]. It is assumed that naturally occurring arsenic concentrations in groundwater increase east of the Spring Line fault reaching very high levels beneath Owens Lake. Shallow groundwater sampling (< ~10 feet) by others beneath Owens Lake documented arsenic concentrations in the range of 50 – 150 mg/L (Levi et al, 1999). It is likely that these elevated concentrations are associated with the fine grained lacustrine deposits. Thus, as the presence of these layers increases, it is expected that naturally occurring

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

arsenic concentrations will likewise increase. However, this expected increase is a general trend and will be more dependent on the volume of fine grained lacustrine sediment encountered in each area. For example, the arsenic detection in MW-09 were slightly higher than the range of arsenic detected west of the Spring Line Fault, however the fine-grained lacustrine sediments identified in this boring were directly adjacent to the screen section of this well where the sampling pump was installed. The arsenic concentrations detected in this well are likely the result of the fine grained sediments found in adjacent to this well screen.

As described in the Phase 1 report, previous groundwater grab samples were very turbid with sediment, which contributed to elevated total metals concentrations. All groundwater samples were field filtered for the Phase 2 groundwater sampling event. The results of dissolved and total metals were similar for the Phase 2 investigation samples, with the total metals concentrations generally slightly higher than the dissolved metals results.

A Stiff diagram is presented as **Figure 6**. The Stiff diagram graphically represents the relative concentrations of major anions and cations in milliequivalent units. Based on the Stiff diagram the water quality in MW-4 and MW-5 are similar in composition and contain the highest concentrations of both anions and cations. Wells located up-gradient or cross-gradient of these wells, MW-01, MW-02, MW-03, MW-08, and MW-09, generally have similar composition and relative concentrations of anions and cations. Wells MW-06 and MW-07 also have similar water quality characteristics and have similar concentrations of both cations and anions. In general, wells MW-04, MW-05, MW-06 and MW-07 have elevated concentrations of cations of sodium and potassium, and elevated concentrations sulfate and bicarbonate in comparison to wells MW-01, MW-02, MW-03, MW-08, and MW-09.

8.0 CONCLUSIONS AND RECOMMENDATIONS

The Phase 2 Site investigation was conducted to further evaluate the soil, soil vapor, and groundwater conditions in the areas around the 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. The monitoring well and soil vapor probe sampling locations were selected based on data obtained from the Phase 1 Site screening level investigation (Geosyntec, 2015b).

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 as part of the Phase 2 Site investigation. The groundwater gradient in the area of the EP and AP was calculated to be towards the northeast at a magnitude of approximately 0.005 feet/ft. The gradient was not calculated for the area around the FP, but the groundwater elevations measured in well MW-01 and MW-02 near the FP indicate that there is a mounding effect caused by the Spring Line fault. MW-02 is installed directly west and adjacent to the inferred trace of the Spring Line fault. Groundwater flow on the west side of the Spring Line fault has been investigated in previous phases of work at the Site and has been shown to flow towards the east with a mounding effect on groundwater flow (Dames and Moore, 1991). The mounding effect causes groundwater to discharge to ground surface (spring flow).

Soil samples results indicate that arsenic, cobalt, mercury, and molybdenum were detected at concentrations exceeding one or more published screening level. Of the metals detected in soil, only detections of arsenic and molybdenum exceeded the California median background for soil concentrations (UCR/DTSC, 1996). The distribution and concentrations of the detected metals and inorganic compounds indicate that there have been no significant impacts to soil due to waste water discharges at the Site.

Soil vapor sampling indicate low detections of VOCs above the laboratory MRL. All soil vapor sample results were much lower than the most stringent screening levels for even 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 in the area around the valve distribution box.

The results of the Phase 2 investigation indicate that the primary groundwater constituents of concern in areas around the AP, EP, and FP, are metals. In particular antimony and arsenic were detected at concentrations exceeding their MCLs of 6 and 10 µg/L (as well as background – assumed to be approximately 16 to 28 µg/L), in wells MW-04 and MW-05. These wells are located approximately 100 and 500 feet down-gradient of the AP along the northeasterly groundwater flow path. Additionally, elevated concentrations of sulfate and TDS were also detected at concentrations exceeding their secondary MCLs

in borings adjacent to the AP. Other compounds analyzed were not detected above their respective primary or secondary MCLs. It is important to note that elevated arsenic is known to be a naturally occurring element in the soils and at concentrations of approximately 16 to 28 µg/L[3] based on regular water quality sampling conducted at the Site production wells. It is assumed that naturally occurring arsenic concentrations in groundwater increase east of the Spring Line fault, and groundwater sampling by others beneath Owens Lake documented arsenic concentrations in the range of 50 – 150 mg/L (Levi et al, 1999). It is likely that these elevated concentrations are associated with the fine grained lacustrine deposits. Thus, as the presence of these layers increases eastward, it is expected that naturally occurring arsenic concentrations will likewise increase. The occurrence of the shallow groundwater in contact with fine grained lacustrine deposits increases east of the AP, and therefore, it is anticipated that arsenic concentrations in the shallow groundwater east of the AP will be higher than the range of background concentrations observed in production wells west of the Spring Line fault.

It should be noted that production wells in the Cartago area (>3500 feet to the north) do not produce groundwater which originates from the Site. The Cartago wells are screened in different water bearing zone than the shallow-most groundwater found in the Phase 2 investigation areas. Furthermore, the groundwater gradient in the area of the AP is towards the northeast, and the arsenic-impacted groundwater is proximal to the AP and migrating a direction away the Cartago production wells.

Based on data collected during this investigation, it appears that there has been a release from the AP. The elevated arsenic concentrations detected in wells MW-04 and MW-05 are found proximal and down-gradient of the AP, but the extent has not been fully delineated in the down-gradient direction. Therefore, additional groundwater investigation is recommended down-gradient of well MW-05 to further delineate the arsenic concentrations. Additional groundwater investigation will be conducted in general accordance with the *Site Investigation Work Plan* (Geosyntec, 2014) and *Plan Addendum* (Geosyntec, 2015b) and is proposed to consist of collection of groundwater grab samples at locations down gradient of the AP. The groundwater grab samples will be analyzed and used to evaluate the placement of an additional groundwater well or wells, as necessary. Final well construction details will be determined based on analytical and field conditions.

The groundwater sample analytical results did not contain detections of VOCs, SVOCs, and contained very low detections of nitrate, nitrite, phosphate, phosphorus, MBAS, and total and fecal coliforms in one or more of the groundwater samples collected. Based on the laboratory analytical results of the Phase 2 soil, soil vapor, and groundwater samples, the analytical schedule for future quarterly groundwater sampling of the monitoring wells is proposed to be reduced to:

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

- Dissolved CAM 17 metals; and

- General minerals including sodium, calcium, magnesium, chloride, bicarbonate, sulfate, and total dissolved solids.

Additionally, based on the low detections of VOCs in the SVP, Geosyntec proposes that additional soil vapor sampling is not necessary for this investigation.

9.0 REFERENCES

CGR 2014, Facility Waste Generation and Discharge Systems Report, Prepared by CG Roxane, LLC, 1210 South U.S. Highway 395, Olancha, California, October 21, 2014.

Dames and Moore, 1990, Phase I – Water Resources Investigation, Crystal Geyser-Roxane, Bottling Facility, Inyo County, California, February 19, 1990.

Dames and Moore, 1991, Phase II – Water Resources Investigation, Crystal Geyser-Roxane, Bottling Facility, Inyo County, California, January 20, 1991.

Dames and Moore, 1991 Report – Water Supply Wells CGR-4, CGR-5 and CGR-6 Crystal Geyser-Roxane, Olancha

Dames and Moore, 1993, Report – Water Supply Well CGR-2, Crystal Geyser Roxane, Olancha, California, March 31, 1993.

Dames and Moore, 1995, Report – Water Supply Wells CGR-4, CGR-5 and CGR-6 Crystal Geyser-Roxane, Olancha, California, April 21, 1995.

Department of Water Resources, 2003, California's Groundwater, Bulletin 118.

Geosyntec Consultants, Inc. 2011, Test Well Installation and Hydrogeology Report, Cabin Bar Ranch, Olancha, California. February 7, 2011.

Geosyntec 2014, Site Investigation Workplan, Olancha Spring Water Bottling Facility, 1210 South U.S. Highway 395, Olancha, California, October 17, 2014.

Geosyntec 2015a, Phase 1 Site Groundwater Investigation Report, Olancha Spring Water Bottling Facility, 1210 South U.S. Highway 395, Olancha, California, February 16, 2015.

Geosyntec 2015b, Site Investigation Work Plan Addendum, Olancha Spring Water Bottling Facility, 1210 South U.S. Highway 395, Olancha, California, May 29, 2015.

Geothermal Surveys Inc., 1982, Preliminary Geohydrologic Investigation of the Cabin Bar Ranch Area, Inyo, County, California.

Geothermal Surveys Inc,. 1983, Ground Temperature Survey and Additional Geohydrologic Investigation, Cabin Bar Ranch, Inyo County. California.

Levy et al., 1999 D.B. Levy, J.A. Schramke, K.J. Esposito, T.A. Erickson and J.C. Moore, The shallow ground water chemistry of arsenic, fluorine, and major elements: Eastern Owens Lake, California, Appl. Geochem. 14 (1999),

Pakiser, L.C., Kane, M.F., and Jackson, W.H., 1964, Structural Geology and Volcanism of Owens Valley Region, California, a Geophysical Study. U.S.G.S. Professional Paper No. 438.

RCS, 2012, Updated Draft Hydrogeologic Evaluation for Crystal Geyser Roxane Cabin Bar Ranch Water Bottling Facility Project, Inyo County, California, April 2012.

Reid, J. S. et al., 1994, Local Meteorological, Transport, and Source Aerosol Characteristics of Late Autumn Owens Lake (dry) Dust Storms: Atmospheric Environment, v. 28, p. 1699-1706.

Ryu J-H, et al., 2002, Arsenic Distribution, Speciation, and Solubility in Shallow Groundwater of Owens Dry Lake, California, Geochimica et Cosmochimica Acta, Vol. 66, No. 17, pp. 2981-2994, March 2002.

UCR/DTSC, 1996, Background Concentrations of Trace and Major Elements in California Soils, Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California Riverside, and California Department of Toxic Substances Control, March 1996

USEPA, 2014. Regional Screening Levels for Chemical Contaminants at Superfund Sites. EPA Office of Superfund. January.

TABLES

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

Location	Depth (ft bgs)	Date Sampled	Sample ID	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Chromium mg/kg	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Vanadium mg/kg	Zinc mg/kg
AP-4	5	2015-06-25	AP-4-05-062515	2.95	16.7	ND < 0.248	3.05	0.886	2.76	0.864 J	ND < 0.0862 J	0.591	0.492 J	2.52	10.6
AP-4	5	2015-06-25	AP-4-05-062515-DUP	3.61	20.0	ND < 0.246	2.07	1.22	3.43	0.496 J	ND < 0.0794 J	0.259	1.23 J	3.41	11.0
MW-01	15	2015-06-22	MW-01-15-062215	53.8	49.1	0.379	1.62	5.19	14.7	4.01	ND < 0.0806	1.23	1.86	50.2	48.7
MW-02	10	2015-06-25	MW-02-10-062515	0.770	33.3	ND < 0.249	1.00	2.57	5.19	0.648	ND < 0.0877 J	ND < 0.249	0.841	10.3	33.0
MW-03	5	2015-06-23	MW-03-05-062315	3.33	31.2	ND < 0.255	2.35	1.68	2.92	0.801	0.169	ND < 0.255	2.52	5.32	10.6
MW-04	5	2015-06-24	MW-04-05-062415	1.11	9.92	ND < 0.245	0.350	0.501	3.02	ND < 0.490	ND < 0.0833 J	ND < 0.245	ND < 0.245	1.75	5.33
MW-05	5	2015-06-23	MW-05-05-062315	2.23	11.3	ND < 0.254	0.613	0.678	1.53	ND < 0.508	ND < 0.0847	ND < 0.254	0.380	2.78	6.92
MW-06	10	2015-06-23	MW-06-10-062315	1.54	15.1	ND < 0.238	1.26	0.871	2.07	ND < 0.476	ND < 0.0847	ND < 0.238	0.977	3.32	7.93
MW-07	5	2015-06-23	MW-07-05-062315	2.67	30.7	ND < 0.240	1.83	1.47	3.08	ND < 0.481	ND < 0.0794	ND < 0.240	2.01	5.46	10.9
MW-08	5	2015-06-24	MW-08-05-062415	2.54	18.5	ND < 0.255	1.25	1.02	3.30	0.552	ND < 0.0862	ND < 0.255	0.997	3.70	10.1
MW-09	10	2015-06-24	MW-09-10-062415	ND < 0.773	6.82	ND < 0.258	0.778	0.422	1.06	ND < 0.515	ND < 0.0794	ND < 0.258	0.431	2.62	3.36
Screening Level - California: median background soil				2.7	520	1.2	69	12	22	21	0.19	0.85	27	94	150
Screening Level - USEPA 2014 Industrial Soil RSL				3.0	220,000	2,300	nl	350	47,000	800	40	5,800	22,000	5,800	350,000
Screening Level - USEPA 2014 Protection of Groundwater MCL-Based SSL				0.29	82	3.2	180,000	nl	46	14	0.10	nl	nl	nl	nl
Screening Level - USEPA 2014 Protection of Groundwater Risk-Based SSL				0.0015	160	19	nl	0.27	28	nl	0.033	2.0	26	86	370

Notes:
Soil samples were analyzed for CAM 17 Metals by Eurofins Calscience Enviromental 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 exceedence of one or more of the listed screening levels.
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.

Table 2
Soil Sample Results - Detected Inorganic Constituents
Crystal Geyser Roxane
Olancha, CA

Location	Depth (ft bgs)	Date Sampled	Sample ID	Alkalinity, Total mg/kg	Ammonia Nitrogen mg/kg	Chloride mg/kg	Nitrate and Nitrite mg/kg	Nitrogen, Total (Calculated) mg/kg	Nitrogen, Total Kjeldahl mg/kg	pH pH units	Phosphate mg/kg	Phosphorus, Total as P mg/kg	Sulfate mg/kg	TDS mg/kg
AP-4	5	2015-06-25	AP-4-05-062515	500 J	14 J	ND < 10 J	0.54 J	0.54 J	ND < 50 J	8.74	420 J	140 J	ND < 10 J	5,000 J
AP-4	5	2015-06-25	AP-4-05-062515-DUP	540 J	ND < 10 J	ND < 10 J	0.61 J	0.61 J	ND < 50 J	8.47	440 J	140 J	ND < 10 J	7,000 J
MW-01	15	2015-06-22	MW-01-15-062215	45	28	ND < 10	1.0	130	130	7.50	ND < 1.5	ND < 0.50	14	13,100
MW-02	10	2015-06-25	MW-02-10-062515	100 J	11 J	ND < 10 J	1.3 J	64 J	63 J	8.11	790 J	260 J	17 J	9,430 J
MW-03	5	2015-06-23	MW-03-05-062315	460	ND < 50	ND < 10	0.70	0.70	ND < 50	9.24	2.4	0.78	ND < 10	6,710
MW-04	5	2015-06-24	MW-04-05-062415	310 J	14 J	ND < 10 J	ND < 0.50 J	ND < 0.50 J	ND < 50 J	8.62	300 J	97 J	ND < 10 J	3,690 J
MW-05	5	2015-06-23	MW-05-05-062315	560	ND < 50	ND < 10	0.92	71	70	9.16	280	93	61	3,180
MW-06	10	2015-06-23	MW-06-10-062315	340	28	15	2.6	87	84	8.79	280	93	ND < 10	3,420
MW-07	5	2015-06-23	MW-07-05-062315	730	39	ND < 10	0.75	71	70	8.99	290	94	ND < 10	5,730
MW-08	5	2015-06-24	MW-08-05-062415	230	ND < 50	ND < 10	0.79	0.79	ND < 50	8.77	320	110	ND < 10	2,060
MW-09	10	2015-06-24	MW-09-10-062415	160	ND < 50	ND < 10	0.58	0.58	ND < 50	8.21	110	37	27	4,370

Notes:

Soil samples were analyzed for CAM 17 Metals by Eurofins Calscience Enviromental 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.

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

ft bgs: Feet below ground surface

mg/kg: milligrams per kilogram

J: Estimated concentration.

ND<: Not detected above the listed laboratory minimum reporting limit.

Table 3
Soil Vapor Sample VOC Results
Crystal Geyser Roxane
Olancha, CA

Location	Depth	Date Sampled	Sample ID	2-butanone (MEK) µg/m³	Acetone µg/m³	Benzene µg/m³	Chloromethane µg/m³	Ethylbenzene µg/m³	Isopropyl Alcohol µg/m³	o-Xylene µg/m³	Tetrachloroethene (PCE) µg/m³	Toluene µg/m³
SV-01	5	2015-07-08	SV-01-5-070815	ND < 4.7 J	25	ND < 1.7 J	1.1 J	ND < 2.3 J	18	ND < 2.3 J	ND < 3.6 J	ND < 2.0 J
SV-01	5	2015-07-08	SV-01-5-070815-DUP	9.6 J	60	20 J	ND < 1.1 J	4.8 J	20	2.3 J	5.2 J	7.8 J
Screening Level - 2012 RSL Industrial Air * 1000				22,000,000	140,000,000	1,600	390,000	4,900	31,000,000	440,000	47,000	22,000,000
Screening Level - 2012 RSL Residential Air * 1000				5,200,000	32,000,000	310	94,000	970	7,300,000	100,000	9,400	5,200,000

Notes:
Soil vapor samples analyzed by Eurofins Calscience Environmental Laboratory. Samples analyzed using EPA Method TO-15.
µg/m³: micrograms per cubic meter
ND <x.xx: Indicates sample result was less than laboratory minimum reporting limit.
RSL: USEPA Regional screening level.
J: Estimated concentration

Table 4

Groundwater Levels and Well Construction Data

Crystal Geyser Roxane

Olancha, CA

Well ID	Date	Depth to Water (ft btoc)	Top of Well Casing Elevation (ft amsl)	Groundwater Elevation (ft amsl)	Well Screen Interval (ft bgs)	Well Total Depth (ft bgs)	Location Coordinates	
							Northing	Easting
MW-01	7/6/2015	21.80	3643.80	3622.00	18 - 33	33	36.3011461	-118.0207444
MW-02	7/6/2015	12.28	3638.21	3625.93	10 - 25	25	36.3018132	-118.0199017
MW-03	7/6/2015	13.97	3618.26	3604.29	5 - 20	20	36.3057165	-118.0186995
MW-04	7/6/2015	11.17	3615.22	3604.05	5 - 20	20	36.3061799	-118.0177333
MW-05	7/6/2015	7.97	3608.33	3600.36	5 - 20	20	36.3066296	-118.0165260
MW-06	7/6/2015	13.22	3615.33	3602.11	8 - 23	23	36.3052343	-118.0149476
MW-07	7/6/2015	8.28	3610.16	3601.88	5 - 20	20	36.3055453	-118.0142003
MW-08	7/6/2015	13.31	3617.28	3603.97	5 - 20	20	36.3063264	-118.0185088
MW-09	7/6/2015	16.14	3620.04	3603.90	9 - 24	24	36.3056073	-118.0178481

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

Table 5

Field Groundwater Quality Parameters

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	18.3	315.4	8.8	5.7	6.76	16.0	0.31	0.24
MW-02	19.1	193.0	-9.4	0.6	6.10	10.0	0.45	0.23
MW-03	17.3	318.9	-217.5	0.3	7.34	16.0	0.6	0.39
MW-04	19.3	3,488	-263.0	0.5	10.62	143.0	1.62	1.74
MW-05	19.0	2,956	-152.1	0.3	9.74	9.0	2.35	1.73
MW-06	20.3	969.0	-311.0	0.3	8.48	69.0	0.79	0.77
MW-07	25.8	741.0	-303.9	0.4	9.13	>1000	1.55	14.68
MW-08	20.2	270.9	-190.4	0.4	7.15	7.0	0.3	0.2
MW-9	16.1	1,071	-82.4	3.4	3.14	8.0	0.38	0.28
AP-4	29.1	339.0	20.0	7.1	6.14	13.8	0.10	0.06

Notes:

bgs: below ground surface

TDS: Total Dissolved Solids

ORP: Oxidation reduction potential

DO: Dissolved oxygen

Cl_2: Residual chlorine

µS/cm: microsiemens per centimeter

°C: degrees centigrade

ppm: parts per million

mv: millivolts

mg/L: milligrams per liter

Table 6
Groundwater Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Antimony (dissolved) µg/l	Antimony (total) µg/l	Arsenic (dissolved) µg/l	Arsenic (tota) µg/l	Barium (dissolved) µg/l	Barium (total) µg/l	Chromium (dissolved) µg/l	Copper (dissolved) µg/l	Copper (total) µg/l	Lead (dissolved) µg/l	Molybdenum (dissolved) µg/l	Molybdenum (total) µg/l	Nickel (total) µg/l	Silver (dissolved) µg/l	Vanadium (dissolved) µg/l	Vanadium (total) µg/l	Zinc (dissolved) µg/l	Zinc (total) µg/l
AP-4	2015-06-25	AP-4-10-062515	**< 15.0**	**< 15.0**	239 J	80.1 J	1,300 J	< 10.0 J	13.3 J	83.6 J	< 10.0 J	16.1 J	137 J	54.3 J	< 10.0	< 5.00	187 J	22.1 J	282 J	11.6 J
MW-01	2015-07-07	MW-01-070715	**< 15.0**	**< 15.0**	13.6	17.6	22.8	26.8	< 10.0	< 10.0	< 10.0	< 10.0	11.0	11.9	< 10.0	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
MW-02	2015-07-07	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	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
MW-03	2015-07-07	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	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
MW-04	2015-07-06	MW-04-070615	24.7 J	16.0 J	742	821	10.3 J	24.4	< 10.0	48.2	43.3	< 10.0	430	476	< 10.0	6.80 J	217	249	< 10.0	24.9 J
MW-04	2015-07-06	MW-04-070615-DUP	20.3 J	**< 15.0 J**	757	816	< 10.0 J	23.8	< 10.0	36.1	41.8	< 10.0	439	471	< 10.0	7.91 J	222	248	< 10.0	13.4 J
MW-05	2015-07-07	MW-05-070715	**< 15.0**	**< 15.0**	707	730	14.3	17.2	< 10.0	50.5	47.3	< 10.0	437	448	< 10.0	5.59 J	197	208	10.3	37.5
MW-06	2015-07-06	MW-06-070615	**< 15.0**	**< 15.0**	17.1	18.3	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	10.4	10.4	< 10.0	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
MW-07	2015-07-06	MW-07-070615	**< 15.0**	**< 15.0**	47.9	48.3	< 10.0	14.2	< 10.0	37.2 J	16.2 J	< 10.0	29.3	30.1	10.5 J+	< 5.00	19.7	21.8 J+	< 10.0	22.6 J+
MW-08	2015-07-07	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	< 5.00	< 10.0	< 10.0	13.6 J	< 10.0 J
MW-09	2015-07-07	MW-09-070715	**< 15.0**	**< 15.0**	47.2	50.6	44.2	43.2	< 10.0	< 10.0	< 10.0	< 10.0	77.4	87.8	< 10.0	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
		2014 Cal EPA MCL	6.0	6.0	10	10	1,000	1,000	50	1,300	1,300	15	nl	nl	100	nl	nl	nl	nl	nl

Notes:

Groundwater samples were analyzed for CAM 17 Metals by Eurofins Calscience Enviromental 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 exceedence of the listed maximum contaminant level.

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.

Table 7
Groundwater Sample Results - Detected Inorganic Constituents
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Alkalinity, Total mg/l	Ammonia Nitrogen 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	TDS mg/l
AP-4	2015-06-25	AP-4-10-062515	865 J	< 0.10 J	3.54	7.9 J	0.199	< 0.10 J	< 0.10 J	1.1 J	0.980 J	27 J	8.8 J	95.6	26 J	2,060 J
MW-01	2015-07-07	MW-01-070715	114 J	< 0.10 J	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
MW-02	2015-07-07	MW-02-070715	72.0	< 0.10	23.1	2.0	2.54	< 0.10	< 0.10	< 0.50	< 0.500	< 0.31	< 0.10	9.42	12	160
MW-03	2015-07-07	MW-03-070715	120 J	0.56 J	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
MW-04	2015-07-06	MW-04-070615	916 J	0.11 J	7.40	20 J	1.10	< 0.10 J	0.23 J	1.6 J	1.40 J	4.8 J	1.6 J	934	880 J	2,340 J
MW-04	2015-07-06	MW-04-070615-DUP	916 J	0.11 J	7.34	16 J	1.10	< 0.10 J	0.23 J	1.6 J	1.40 J	4.9 J	1.6 J	909	890 J	2,360 J
MW-05	2015-07-07	MW-05-070715	556 J	0.39 J	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
MW-06	2015-07-06	MW-06-070615	180 J	0.17 J	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
MW-07	2015-07-06	MW-07-070615	248 J	< 0.10 J	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
MW-08	2015-07-07	MW-08-070715	120 J	0.39 J	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
MW-09	2015-07-07	MW-09-070715	174	< 0.10	154	6.8	7.11	< 0.10	0.28	0.79	0.560	0.44	0.14	75.3	360	730
		2014 Cal EPA MCL	nl	nl	nl	nl	nl	nl	10	nl	nl	nl	nl	nl	nl	nl

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

Table 8

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
AP-4	2015-06-25	AP-4-10-062515	< 2.0	< 2.0
MW-01	2015-07-07	MW-01-070715	< 2.0 R	**2.0 J**
MW-02	2015-07-07	MW-02-070715	< 2.0 R	< 2.0 R
MW-03	2015-07-07	MW-03-070715	< 2.0 R	**2.0 J**
MW-04	2015-07-06	MW-04-070615	< 2.0 R	< 2.0 R
MW-05	2015-07-07	MW-05-070715	< 2.0 R	**2.0 J**
MW-06	2015-07-06	MW-06-070615	< 2.0 R	< 2.0 R
MW-07	2015-07-06	MW-07-070615	**2.0 J**	**2.0 J**
MW-08	2015-07-07	MW-08-070715	< 2.0 R	**2.0 J**
MW-09	2015-07-07	MW-09-070715	< 2.0 R	< 2.0 R

Notes:

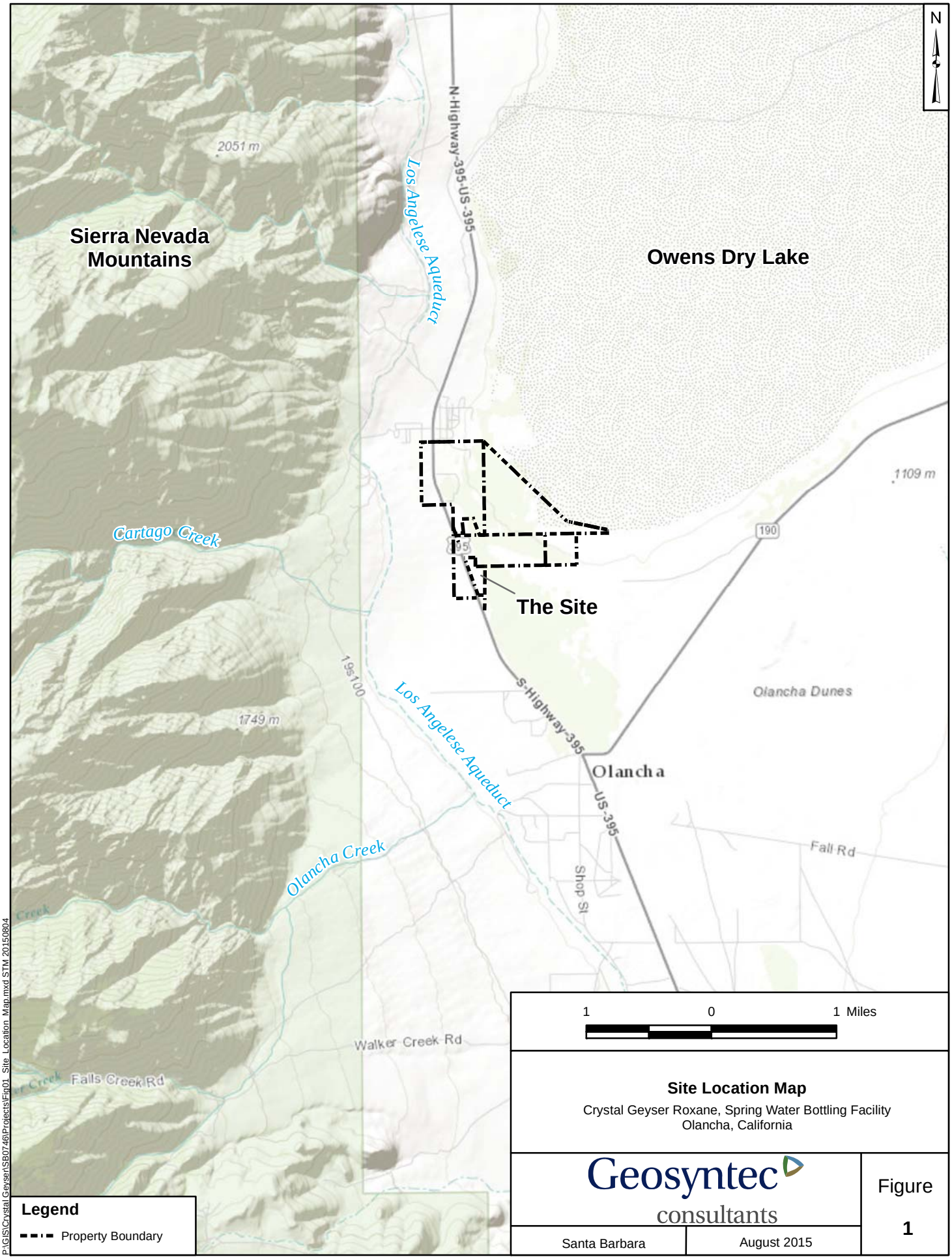
Samples analyzed by BC Laboratories, Inc.

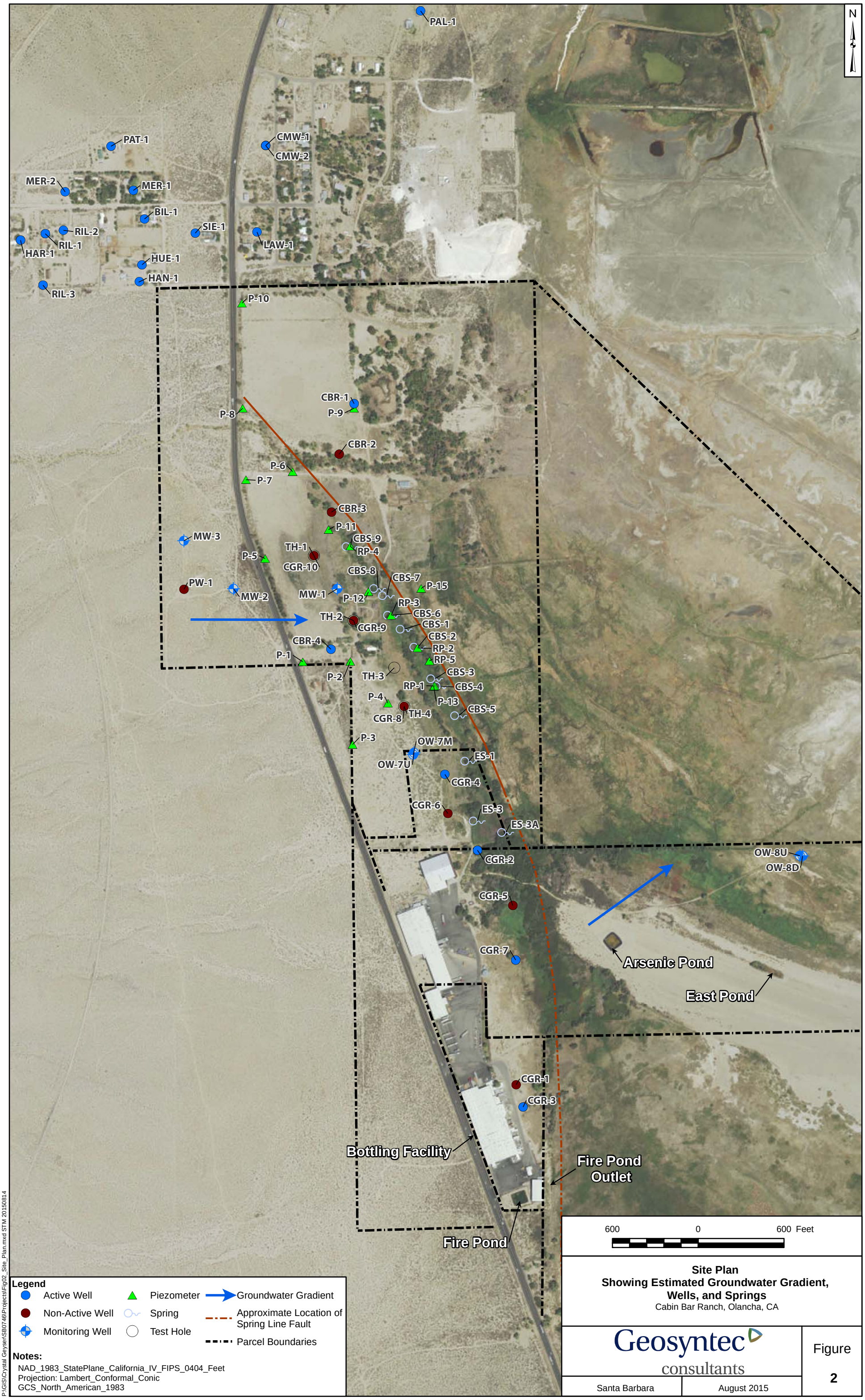
MPN/100ml: Most probable number per 100 milliliters.

J: Estimated concentration

R: Data rejected due to data quality issues.

FIGURES


N
Sierra Nevada Mountains
Owens Dry Lake
N-Highway-395-US-395
Los Angelese Aqueduct
2051 m
1109 m
1749 m
Cartago Creek
The Site
190
395
S-Highway-395
US-395
Olancha
Olancha Dunes
Los Angelese Aqueduct
Olancha Creek
Fall Rd
Shop St
Walker Creek Rd
Falls Creek Rd
Legend
Property Boundary
1 0 1 Miles
Site Location Map
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California
Geosyntec consultants
Santa Barbara
August 2015
Figure 1
P:\GIS\Crystal Geyser\SB0746\Projects\Fig01_Site_Location_Map.mxd STM 20150804



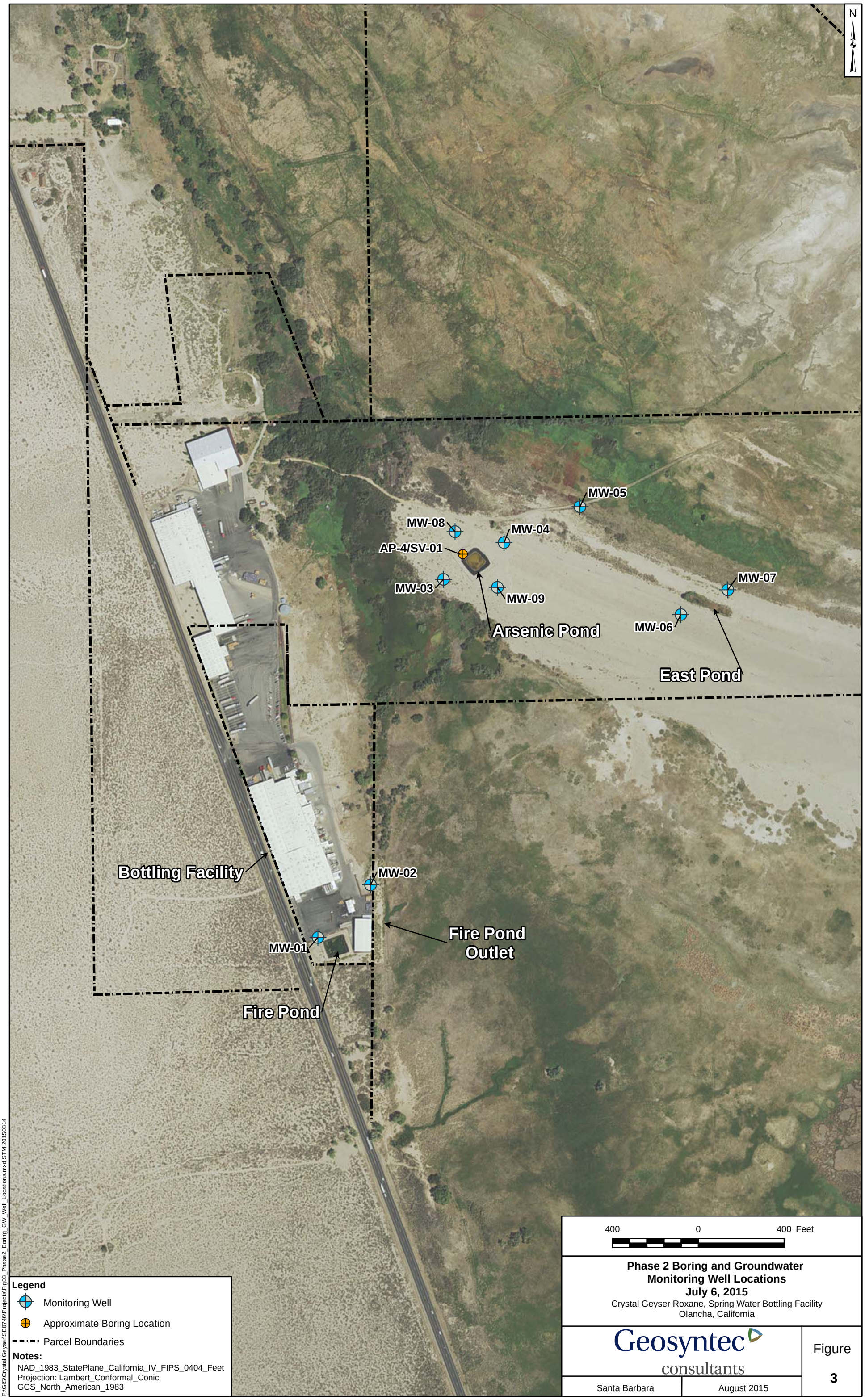
Site Plan
Showing Estimated Groundwater Gradient, Wells, and Springs
Cabin Bar Ranch, Olancha, CA

Geosyntec consultants

Santa Barbara | August 2015

Figure **2**

P:\GIS\Crystal Geyser\SB0746\Projects\Fig02_Site_Plan.mxd STM 20150814



Legend

- Monitoring Well
- Approximate Boring Location
- Parcel Boundaries

Notes:

NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

400 0 400 Feet

Phase 2 Boring and Groundwater Monitoring Well Locations
July 6, 2015
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | August 2015

Figure **3**

P:\GIS\Crystal Geyser\SB0746\Projects\Fig03_Phase2_Boring_GW_Well_Locations.mxd STM 20150814

N

3,601
3,602
3,603
3,604

i = 0.005

MW-05
3600.36

MW-04
3604.05

MW-08
3603.97

MW-09
3603.90

MW-03
3604.29

MW-07
3601.88

MW-06
3602.11

Arsenic Pond

East Pond

Bottling Facility

MW-02
3625.93

MW-01
3622.00

Fire Pond
Outlet

Fire Pond

400 0 400 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)
NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

Groundwater Elevations and Gradient

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | August 2015

Figure 4

P:\GIS\Crystal Geyser\SB0746\Projects\Fig04_Groundwater_Elevations_and_Gradient.mxd STM 20150814

N

500

50

MW-08
< 10.0

MW-04
757

MW-05
707

MW-03
20.5

MW-09
47.2

MW-07
47.9

MW-06
17.1

Arsenic Pond

East Pond

Bottling Facility

MW-02
23.3

MW-01
13.6

Fire Pond
Outlet

Fire Pond

Legend

- Monitoring Well
- Arsenic Contour (µg/L)
- Inferred Arsenic Contour (µg/L)
- Spring Line Fault
- Parcel Boundaries

Notes:

Naturally occurring arsenic in groundwater is generally higher than MCL of 10µg/L. Isoconcentration not shown to MCL.

400 0 400 Feet

Dissovled Arsenic Isoconcentration

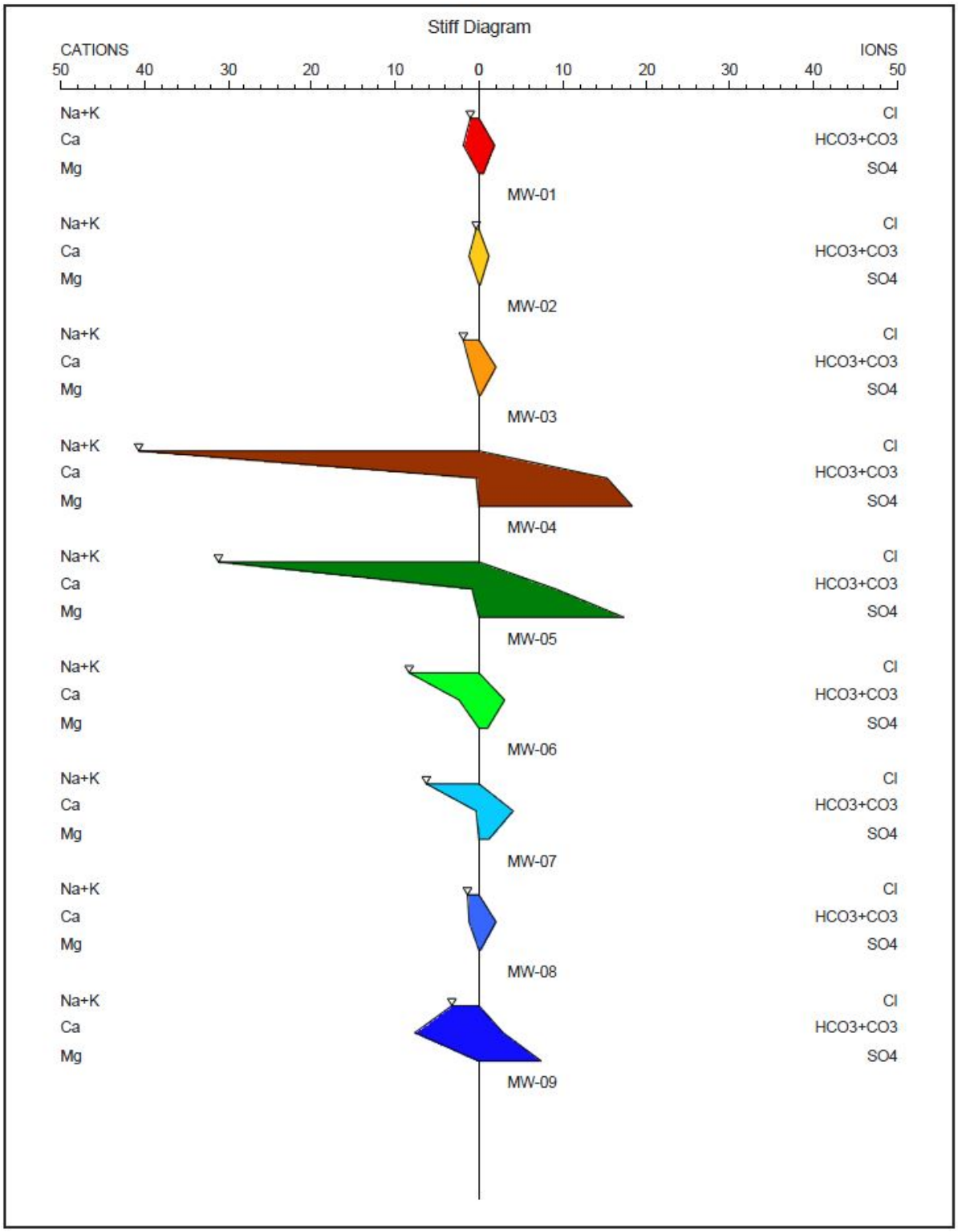
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | August 2015

Figure 5

P:\GIS\Crystal Geyser\SB0746\Projects\Fig05_Dissolved_Arsenic_Isoconcentrations.mxd STM 20150810



Stiff Diagram

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | August 2015

Figure 6

Path: P:\GIS\Crystal Geyser\SB0746\Projects\Fig06_Stiff Diagram.ppt* STM 2015-8-10

APPENDIX A

WELL CONSTRUCTION INFORMATION

TABLE 1A
SUMMARY OF AVAILABLE WATER-SUPPLY WELL CONSTRUCTION DATA
CABIN BAR RANCH PROPERTY
INYO COUNTY, CALIFORNIA

Well No.	State Well Completion Report No.	Date Drilled	Method of Drilling	Pilot Hole Depth (ft)	Casing Type & Depth (ft)	Casing Diameter (in)	Borehole Diameter (in)	Sanitary Seal Depth (ft)	Perforation Intervals (ft)	Type of Perforations	Slot Opening of Perforations (in)	Type of Gravel Pack	Pumping Data Reported by Driller at Date of Construction				
													Date	Type of Test	Duration of Test (hrs)	Estimated Test Rate (gpm)	Static Water Level (ft)
CBR-1	ND	ND	direct rotary	198	steel, ND	10	14	ND	60-120	ND	ND	ND	ND	airlift	ND	300	artesian flow @ 60 gpm
CBR-2 (?)	231281 (?)	7/82	direct rotary	187	steel, 186	10	14	20	62-123, 143-186	louvers (?)	0.125	ND	8/4/82	airlift	2	250	artesian flow @ 50 gpm
CBR-3	ND	ND	direct rotary	300	none installed	N/A	6	ND	ND	ND	ND	N/A	ND	ND	ND	N/A	artesian flow at 6 gpm
CBR-4	N/A	ND	ND	60	steel, 60	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CBR-5	575965	10/94	direct rotary	70	PVC to 52; then stainless steel to 67	all 10	17	49	52-67	well screen	0.06	coarse aquarium	10/7/94	ND	ND	ND	2
PW-1 (1989 test production well)	256267 E-logged on 2/9/89	3/89	direct rotary	753	steel 663	16	28	50	200-650	louvers	0.080 (80 slot)	ND	3/89	pumping	ND	2800 by pump	41
CGR-1	Geologic Log by Dames & Moore	4/90	direct rotary	94	PVC to 57; then stainless steel to 88	4 PVC; then 6 stainless steel	ND	52	57-88	well screen	0.020	#3 sand	ND	ND	ND	ND	ND
CGR-2	No E-log performed; Geologic Log by Dames & Moore	11/92	direct rotary	91	PVC to 50; then stainless steel to 65	All 10	22	50	51-65	well screen	0.080	#4 to #12 sand	ND	ND	ND	ND	ND
CGR-3	396391 E-logged on 9/20/03; Geologic Log by Dames & Moore	9/93	direct rotary	86	PVC to 52; then stainless steel to 72	All 10	17	53	56-72	well screen	0.050	#4 to #16 sand	ND	ND	ND	ND	ND
CGR-4	575694 E-logged on 8/2/94; Geologic log by Dames & Moore	8/94	direct rotary	100	PVC to 53; then stainless steel to 67	All 10	20	50	52-67	well screen	0.070	#4 to #12 sand	9/22/94	ND	ND	ND	5

TABLE 1A
SUMMARY OF AVAILABLE WATER-SUPPLY WELL CONSTRUCTION DATA
CABIN BAR RANCH PROPERTY
INYO COUNTY, CALIFORNIA

Well No.	State Well Completion Report No.	Date Drilled	Method of Drilling	Pilot Hole Depth (ft)	Casing Type & Depth (ft)	Casing Diameter (in)	Borehole Diameter (in)	Sanitary Seal Depth (ft)	Perforation Intervals (ft)	Type of Perforations	Slot Opening of Perforations (in)	Type of Gravel Pack	Pumping Data Reported by Driller at Date of Construction				
													Date	Type of Test	Duration of Test (hrs)	Estimated Test Rate (gpm)	Static Water Level (ft)
CGR-5	575695 E-logged on 8/3/94; Geologic log by Dames & Moore	8/94	direct rotary	97	PVC to 52; then stainless steel to 67	All 10	20	49	52-67	well screen	0.060 or 0.070	#4 to #12 sand	10/7/94	ND	ND	ND	2
CGR-6	575966 E-logged on 8/2/94; Geologic Log by Dames & Moore	8/94	direct rotary	100	PVC to 53; then stainless steel to 68	All 10	20	±50	53-68	well screen	0.060	#4 to #12 sand	10/94	ND	ND		3
GCR-7	575967 (log for test hole at site)	9/94	direct rotary	104	PVC to 55; then stainless steel to 70; then PVC to 100	All 10	17	50	55-70	well screen	0.060	coarse aquarium	9/94	ND	ND	ND	artesian flow of 3 to 5 gpm
CGR-8	e0116254; nearby TH-4 borehole E-logged on 5/27/10	8/10	direct rotary	68	stainless steel, 68	10	18	50	53-68	well screen	0.070	#4 to #12	8/16/10	with pump	8	Q=400 s=20 Q/s=20	11
CGR-9	e0116289; nearby TH-2 borehole E-logged on 5/26/10	8/10	direct rotary	73	stainless steel, 73	10	18	50	53-73	well screen	0.070	#4 to #12 sand	8/19/10	with pump	8	Q=400 s=20 Q/s=20	10
CGR-10	e0166312; nearby TH-1 borehole E-logged on 5/25/10	8/10	direct rotary	73	stainless steel, 73	10	18	50	53-73	well screen	0.070	#4 to #12 sand	8/23/10	with pump	8	Q=400 s=20 Q/s=20	5

NOTES: 1. ND = no data; NA = not available
2. Original Data for the CBR Wells 1 through 4 adapted from GSI 1982 report (Table 2).
3. Data shown for CGR-8, -9, and -10 are from official driller's logs of each well and may differ slightly from those data listed on the geologic log of each well. Also, it is not known why driller listed identical test rates and drawdown values on each of his logs for these wells.

TABLE 1B
SUMMARY OF AVAILABLE MONITORING WELL CONSTRUCTION DATA
CABIN BAR RANCH PROPERTY
INYO COUNTY, CALIFORNIA

Well No.	State Well Completion Report No.	Date Drilled	Method of Drilling	Pilot Hole Depth (ft)	Casing Type & Depth (ft)	Casing Diameter (in)	Borehole Diameter (in)	Sanitary Seal Depth (ft)	Perforation Intervals (ft)	Type of Perforations	Slot Opening of Perforations (in)	Type of Gravel Pack
OW-1	Geologic Log by Dames & Moore	8/90	direct rotary	70	PVC 69	4	ND	43	49-69	cut slots	#20	ND
OW-7U	Geologic Log by Dames & Moore	NA	direct rotary	704	NA 74½	5	NA	50	54½-74½	NA	NA	NA
OW-7M	Geologic Log by Dames & Moore	NA	direct rotary	704	NA 252	5	NA	188	212-252	NA	NA	NA
MW-1	256260 E-logged on 3/23/89	3/89	direct rotary	660	PVC 600	4	12	115	150-600	ND	0.060 (60-slot)	ND
MW-2	288949 E-logged on 4/5/89	4/89	direct rotary	700	steel(?) 615	4	12	130	165-615	louvers	0.060 (60-slot)	ND
MW-3	288952 E-logged on 4/18/99	4/89	direct rotary	510	steel 420	4	12	165	200-420	louvers	0.060 (60-slot)	ND
MW-4 (destroyed, 6/1987))	256303	1/89	direct rotary	91	steel 84	6	9	20	20-84	ND	ND	ND

NOTES: 1. ND = no data; NA = not available

TABLE 1C
PIEZOMETER PERFORATION INTERVALS
CABIN BAR RANCH
INYO COUNTY, CALIFORNIA

Piezometer Number	Date Installed	Perforation Interval (ft bgs)
P- 1	April 1988	23 to 28
P- 2		23 to 28
P- 3		24 to 29
P- 4		20 to 25
P- 5		23 to 28
P- 6		23 to 28
P- 7		29 to 34
P- 8		33 to 38
P- 9		20 to 25
P- 10		33 to 38
P- 11		14 to 19
P- 12		14 to 19
P- 13		14 to 19
P- 14		8 to 13
P- 15	April 1989	4 to 9
P- 16		5 to 10
RP- 1	Sept 2010	6 to 8
RP- 2		6 to 8
RP- 3		5 to 7
RP- 4		5 to 7
RP- 5		1 to 3

NOTES: The P series piezometers consist of 2-inch diameter galvanized steel tubes. No data available on the screened type or size. See JMM (1989) and MW (1993) for additional details on these piezometers.

The RP piezometers consisted of a 2-foot section of stainless steel screen with 0.020-inch slots joined with a galvanized steel pipe to ground surface and equipped with steel risers above the ground. See Geosyntec (2011) for additional detail regarding the construction of these piezometers.

APPENDIX B

FIELD MONITORING LOGS

WELL GAUGING DATA

Project # 150706-801 Date 7/6/15 Client Geosyntec

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	0730	2					21.80	36.37		
MW-02	1454	2					17.28	28.28		
MW-03	1020	2					13.97	22.74		
MW-04	1100	2					11.17	22.86		
MW-05	0912	2					7.97	23.37		
MW-06	1335	2					13.22	26.36		
MW-07	1155	2					8.28	22.69		
MW-08	1143	2					13.31	23.41		
MW-09	1303	2					16.14	27.26		

LOW FLOW WELL MONITORING DATA SHEET

Page 1 of 2

Project #: 150706-B11	Client: Geo Synfuel
Sampler: MJ	Gauging Date: 7/7/15
Well I.D.: MW-01	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 36.37	Depth to Water (ft.): 21.80
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: 0742 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.)
0745	18.7	5.80	316.4	951	6.11	34.7	1200	22.14
0748	18.5	6.08	316.2	899	6.01	19.8	2400	22.14
0751	18.5	6.13	316.5	815	5.92	16.8	3600	22.14
0754	18.4	6.25	317.1	634	5.87	25.4	4800	22.14
0757	18.4	6.32	317.6	515	5.83	26.8	6000	22.14
0800	18.4	6.40	318.2	405	5.73	26.6	7200	22.14
0803	18.4	6.46	318.6	314	5.80	25.3	8400	22.14
0806	18.3	6.51	319.0	211	5.78	22.5	9600	22.14
0809	18.4	6.56	319.2	141	5.87	20.5	10800	22.14
0812	18.3	6.61	320.0	80	5.72	18.6	12000	22.14
0815	18.3	6.64	321.7	55	5.78	16.7	13200	22.14
0818	18.3	6.67	320.3	39	5.75	14.1	14400	22.14

Did well dewater? Yes (No)	Amount actually evacuated: 21600 ml
Sampling Time: 0837	Sampling Date: 7/7/15
Sample I.D.: MW-01-070715	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 #: 150706 - M1	Client: Geosyntec
Sampler: M	Gauging Date: 7/7/15
Well I.D.: MW-01	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 36.37	Depth to Water (ft.): 21.80
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: 0742 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.)
0821	18.3	6.69	319.1	34	5.77	13.5	15600	22.14
0824	18.3	6.71	318.6	26	5.78	11.7	16800	22.14
0827	18.4	6.74	318.3	15	5.80	10.0	18000	22.14
0830	18.3	6.74	317.2	16	5.85	10.6	19200	22.14
0833	18.4	6.76	316.0	16	5.80	9.5	20400	22.14
0836	18.3	6.76	315.4	16	5.73	8.8	21600	22.14
							Chlorine Free	0.31 ppm
							Chlorine Total	0.24 ppm

Did well dewater? Yes (No) Amount actually evacuated: 21600 mL

Sampling Time: 0837 Sampling Date: 7/7/15

Sample I.D.: MW-01 - 070715 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 #: 150706-M1	Client: Ecosystec
Sampler: M	Gauging Date: 7/7/15
Well I.D.: MW-02	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 28.28	Depth to Water (ft.): 17.28
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: 1502 Flow Rate: 400 ML/min Pump Depth: 22'

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.)
1505	19.8	6.71	212.8	95	1.46	-165.7	1200	17.36
1508	19.5	6.53	211.3	72	1.35	-69.8	2400	17.36
1511	19.4	6.44	210.0	74	1.25	-72.3	3600	17.36
1514	19.4	6.37	209.1	65	1.24	-72.9	4800	17.36
1517	19.3	6.31	208.8	56	1.20	-71.6	6000	17.36
1520	19.2	6.25	208.5	57	1.19	-67.7	7200	17.36
1523	19.2	6.27	206.1	51	1.11	-62.8	8400	17.36
1526	19.1	6.19	202.6	36	0.94	-53.2	9600	17.36
1529	19.2	6.16	201.0	36	0.90	-43.0	10800	17.36
1532	19.0	6.15	196.8	31	0.83	-35.6	12000	17.36
1535	19.1	6.14	195.8	23	0.79	-23.0	13200	17.36
1538	18.9	6.13	195.1	20	0.74	-15.3	14400	17.36

Did well dewater? Yes (No) Amount actually evacuated: 19200 mL

Sampling Time: 1551 Sampling Date: 7/7/15

Sample I.D.: MW-02-070715 Laboratory: Calscience

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

Equipment Blank I.D.: EB-01-070715 @ 1650 (Time) Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Pg 2 of 2

Project #: 150706-101	Client: Geosyntec
Sampler: KD	Gauging Date: 7/7/15
Well I.D.: MW-02	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 28.28	Depth to Water (ft.): 17.28
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: 1502 Flow Rate: 400 mL/min Pump Depth: 22'

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.)
1541	19.2	6.12	194.1	14	0.69	-126	15600	17.36
1545	19.2	6.11	194.0	11	0.66	-10.4	16800	17.36
1547	19.1	6.10	193.5	11	0.63	-9.7	18000	17.36
1550	19.1	6.10	193.0	10	0.60	-9.4	19200	17.36
							Chlorine - Free = 0.45 ppm	
							Chlorine - Total = 0.23 ppm	

Did well dewater? Yes (No) Amount actually evacuated: 19200 mL

Sampling Time: 1551 Sampling Date: 7/7/15

Sample I.D.: MW-02-070715 Laboratory: Calscience

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

Equipment Blank I.D.: EB01-070715 @ Time 1650 Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Pg 1 of 2

Project #: 150706-R01	Client: Geosyntec
Sampler: KO	Gauging Date: 7/7/15
Well I.D.: MW-03	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.74	Depth to Water (ft.): 13.97
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: 1028 Flow Rate: 300 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.)
1031	17.5	8.03	309.4	112	0.41	-230.7	900	14.30
1034	17.6	7.89	307.7	126	0.36	-232.6	1800	14.34
1037	17.6	7.81	309.7	129	0.37	-228.8	2700	14.39
1040	17.6	7.74	317.6	108	0.40	-221.4	3600	14.40
1043	17.4	7.70	319.8	94	0.40	-221.4	4500	14.40
1046	17.2	7.67	318.2	72	0.34	-224.0	5400	14.40
1049	17.3	7.61	315.1	41	0.32	-223.8	6300	14.40
1052	17.3	7.57	314.4	28	0.31	-221.2	7200	14.40
1055	17.2	7.53	314.5	21	0.31	-219.9	8100	14.40
1058	17.2	7.50	314.6	17	0.30	-218.0	9000	14.40
1101	17.3	7.48	315.3	16	0.30	-216.4	9900	14.40
1104	17.3	7.40	316.0	15	0.28	-217.4	10800	14.40

Did well dewater? Yes (No) Amount actually evacuated: 12600

Sampling Time: 1111 Sampling Date: 7/7/15

Sample I.D.: MW-03-070715 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

Pg 2 of 2

Project #: 150706-M1	Client: Geosyntec
Sampler: M	Gauging Date: 7/7/15
Well I.D.: MW-03	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.74	Depth to Water (ft.): 13.97
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: 1028 Flow Rate: 300 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.)
1107	17.2	7.36	318.3	15	0.29	-215.1	11700	14.40
1110	17.3	7.34	318.9	16	0.29	-217.5	12600	14.40
							dolorine-free	0.60 ppm
							Chlorine-Total =	0.39 ppm

Did well dewater? Yes (No) Amount actually evacuated: 12600

Sampling Time: 1111 Sampling Date: 7/7/15

Sample I.D.: MW-03-070715 Laboratory: Cal 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 #: 150706-001	Client: Geosyntec
Sampler: RD	Gauging Date: 7/6/15
Well I.D.: MW-04	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.90	Depth to Water (ft.): 11.17
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: YSI ProPlus

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

Start Purge Time: 1611 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.)
1614	20.0	10.31	3206	109	0.43	-347.6	1200	11.27
1617	19.6	10.39	3118	117	0.43	-291.6	2400	11.27
1620	19.8	10.42	2910	243	0.44	-285.6	3600	11.27
1623	19.8	10.47	3074	257	0.43	-277.3	4800	11.27
1626	19.6	10.50	3144	243	0.38	-277.9	6000	11.27
1629	19.6	10.54	3339	210	0.38	-270.7	7200	11.27
1632	19.6	10.58	3370	169	0.41	-265.5	8400	11.27
1635	19.3	10.60	3412	155	0.45	-261.9	9600	11.27
1638	19.3	10.62	3452	151	0.48	-261.3	10800	11.27
1641	19.3	10.62	3488	143	0.47	-263.0	12000	11.27
							CHLORINE Free =	1.62 PPM
							CHLORINE TOTAL =	1.74 PPM

Did well dewater? Yes (No)	Amount actually evacuated: 12000 mL
Sampling Time: 1645	Sampling Date: 7/6/15
Sample I.D.: MW-04-070615	Laboratory: CA/Science
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See C.O.C.
Equipment Blank I.D.: @ Time	Duplicate I.D.: MW-04-070615-DUP

LOW FLOW WELL MONITORING DATA SHEET

Project #: 150706-R01	Client: Geosyntec
Sampler: MJ	Gauging Date: 7/7/15
Well I.D.: MW-05	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 23.37	Depth to Water (ft.): 7.97
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: 0916 Flow Rate: 500 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.)
0919	18.7	9.40	2984	46	0.50	-112.7	1500	8.08
0922	18.7	9.57	2956	49	0.31	-130.7	3000	8.08
0925	18.7	9.63	2891	36	0.33	-140.8	4500	8.08
0928	18.9	9.66	2882	21	0.36	-143.2	6000	8.08
0931	18.9	9.68	2907	16	0.35	-150.8	7500	8.08
0934	19.0	9.70	2923	15	0.34	-149.7	9000	8.08
0937	19.0	9.71	2937	10	0.33	-150.4	10500	8.08
0940	19.0	9.73	2936	10	0.33	-151.1	12000	8.08
0943	19.0	9.74	2956	9	0.31	-152.1	13500	8.08
							CHLORINE FREE = 2.35 PPM	
							CHLORINE TOTAL = 1.73 PPM	

Did well dewater? Yes (No) Amount actually evacuated: 13500 ml

Sampling Time: 0944 Sampling Date: 7/7/15

Sample I.D.: MW-05-070715 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 #: 150706-M1	Client: Geosyntec
Sampler: M	Gauging Date: 7/6/15
Well I.D.: MW-06	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 26.34	Depth to Water (ft.): 13.22
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: 1442 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.)
1445	20.7	8.83	1555	240	0.38	-279.5	900	13.72
1448	20.3	9.00	1123	196	0.31	-292.8	1800	13.72
1451	20.5	8.82	988	144	0.30	-294.3	2700	13.72
1454	20.4	8.67	949	82	0.27	-298.2	3600	13.72
1457	20.3	8.55	946	85	0.27	-302.4	4500	13.72
1500	20.2	8.51	951	75	0.27	-307.0	5400	13.72
1503	20.4	8.49	960	71	0.27	-308.6	6300	13.72
1506	20.3	8.48	969	69	0.27	-311.0	7200	13.72
							Chloride Free - 0.79 PPM	
							Chlorine - Total = 0.97 PPM	

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

Sampling Time: ~~1516~~ 1530 Sampling Date: 7/6/15

Sample I.D.: MW-06-070615 Laboratory: CM/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 #: 150706-001	Client: Geosyntec
Sampler: AT	Gauging Date: 7/6/15
Well I.D.: MW-07	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 22.69	Depth to Water (ft.): 8.28
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: 1220 Flow Rate: 75 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.)
1223	22.8	8.94	737	71000	0.51	-298.6	225	8.22
1226	24.7	9.18	741	71000	0.48	-306.5	450	8.87
1229	24.6	9.18	739	71000	0.47	-304.0	675	9.01
1232	24.8	9.17	739	71000	0.45	-306.2	900	9.08
1235	25.1	9.15	740	71000	0.44	-308.0	1125	9.15
1238	25.2	9.14	739	71000	0.42	-307.7	1275	9.17
1241	25.4	9.14	742	71000	0.42	-304.1	1425	9.19
1244	25.8	9.13	741	71000	0.42	-303.9	1575	9.21
							Total Chlorine	= 1.55 ppm
							Free Chlorine	= 1.68

Did well dewater? Yes (No) Amount actually evacuated: 1575 mL

Sampling Time: 1315 Sampling Date: 7/6/15

Sample I.D.: MW-07 - 070615 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

Pg 1 of 2

Project #: 150706-M1	Client: Geosyntec
Sampler: M	Gauging Date: 7/7/15
Well I.D.: MW-08	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 23.41	Depth to Water (ft.): 13.31
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: 1148 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.)
1151	20.6	7.30	273.9	328	0.48	-177.7	7200	13.37
1154	20.0	7.22	273.1	124	0.46	-182.2	2400	13.37
1157	20.3	7.18	272.9	123	0.35	-185.1	3600	13.37
1200	20.2	7.16	272.4	88	0.35	-185.9	4800	13.37
1203	20.3	7.16	272.3	74	0.33	-169.6	6000	13.37
1206	20.4	7.19	274.4	58	0.40	-177.3	7200	13.37
1209	21.0	7.17	271.5	33	0.32	-183.2	8400	13.37
1212	20.9	7.17	271.3	27	0.32	-184.6	9600	13.37
1215	20.9	7.16	271.7	21	0.31	-186.0	10800	13.37
1218	20.5	7.16	271.4	14	0.33	-187.3	12000	13.37
1221	20.7	7.16	271.5	13	0.34	-188.7	13200	13.37
1224	20.3	7.15	271.0	10	0.34	-189.7	14400	13.37

Did well dewater? Yes ~~No~~ Amount actually evacuated: 16800

Sampling Time: 1231 Sampling Date: 7/7/15

Sample I.D.: MW-08-070715 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

Pg 2 of 2

Project #: 150706-R01	Client: Cosytec
Sampler: NJ	Gauging Date: 7/7/15
Well I.D.: MW-08	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 23.41	Depth to Water (ft.): 13.31
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: 1149 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.)
1227	20.3	7.15	270.8	7	0.35	-189.7	15600	13.37
1230	20.2	7.15	270.9	7	0.35	-180.4	16800	13.37
							Chlorine Free =	0.30 ppm
							Chlorine Total =	0.20 ppm

Did well dewater? Yes (No) Amount actually evacuated: 16800

Sampling Time: 1231 Sampling Date: 7/8/15

Sample I.D.: MW-08-070715 Laboratory: Cal Scientific

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 #: 150706-101	Client: GeoSyntec
Sampler: KJ	Gauging Date: 7/7/15
Well I.D.: MW-09	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 27.26	Depth to Water (ft.): 16.14
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: YSI ProPlus

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

Start Purge Time: 1308 Flow Rate: 400 mL/min Pump Depth: 21'

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.)
1311	16.9	6.97	1076	174	3.46	-68.9	1200	16.25
1314	16.5	7.06	1071	258	3.44	-78.1	2400	16.25
1317	16.3	7.09	1072	223	3.47	-81.3	3600	16.25
1320	16.0	7.12	1075	165	3.37	-83.2	4800	16.25
1323	16.1	7.13	1076	118	3.36	-84.3	6000	16.25
1326	16.1	7.13	1072	117	3.34	-88.9	7200	16.25
1329	16.1	7.13	1072	53	3.40	-85.1	8400	16.25
1332	16.1	7.13	1070	30	3.44	-83.9	9600	16.25
1335	16.0	7.13	1070	18	3.46	-84.4	10800	16.25
1338	16.1	7.14	1074	9	3.44	-83.6	12000	16.25
1341	16.1	7.14	1073	8	3.41	-82.9	13200	16.25
1344	16.1	7.14	1071	8	3.38	-82.4	14400	16.25

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

Sampling Time: 1345 Sampling Date: 7/7/15

Sample I.D.: MW-09-070715 Laboratory: CA/Science

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

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

Chlorine - Free = 0.38 ppm
Chlorine - Total = 0.28 ppm

WELLHEAD INSPECTION CHECKLIST

Client Geosyntec Date 7/6/15

Site Address 1210 S. Hwy 395 Olancha, CA

Job Number 150706 R01 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-04	✓		Stand Pipe							
MW-05	✓		Stand Pipe							
MW-06	✓		Stand Pipe							
MW-07	✓		Stand Pipe							
MW-08	✓		Stand Pipe							
MW-09	✓		Stand Pipe							

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME	Geosyntec @ Alameda			PROJECT NUMBER	150706-001		
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI Pro Plus	14A10 2846	7/6/15 1000	pH 7.00	7.07	7.00	26.9	KD
↓	↓	↓	↓ 10.00	9.92	10.00	25.9	
			4.00	4.06	4.00	22.1	KD
			Cond 3940	3852	3800	26.1	
			ORP 230.1	231.8	230.1	26.5	KD
			DO% 100	95.8%	96.7%	25.7	
YSI Pro Plus	13E10 2937	7/7/15 0645	pH 7.00	7.11	7.00	24.9	KD
↓	↓	↓	↓ 10.00	9.97	10.00	26.4	
			4.00	4.13	4.00	26.2	KD
			Cond 3900	3893	3900	26.0	
			ORP 231.5	232.2	231.5	24.8	KD
			DO% 100	87.7%	95.3%	25.8	

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CG Roxane Phase 2	MW-01

PROJECT NO.	SITE	PREPARED BY
SB0721	1210 Hwy 395 Olancha CA	Kajo Agustsson

METHOD
- PUMP: Rediflow 2 Grundfoss
- BAILER: 10' x 2" surge blk
- OTHER: 2"x10' bailer.

DEVELOPMENT CRITERIA: Bail + surge 1-2 mins for every foot of wetted screen until Turbidity <5NTU

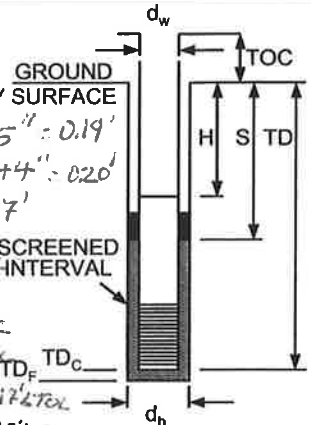
REMARKS: continuous flow measurement at inside development rig.

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING (HEIGHT)/DEPTH (TOC) = 32" = 3.17'
- INSIDE DIAM d_wID = 2 4/16" = 2.25" = 0.19'
- OUTSIDE DIAM d_wOD = 2 7/16" = 2.44" = 0.20'
- HOLE DIAMETER d_h = 8" = 0.67'

DEPTH TO: 21.17' – 36.17 bTOC
- SCREENED INTERVAL 18 TO 33 bgs
- WATER LEVEL H = 21.66 bTOC
- BASE OF SEAL S = 17 => 20.17 bTOC
- BASE OF CASING TD_C = 33 bgs => 36.17 bTOC
- BASE OF FILTER PACK TD_F = 35 bgs => 38.17 bTOC

ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =
$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_c - H) = 3.14\left(\frac{0.19}{2}\right)^2 (36.17-21.66) = 0.41 \text{ ft}^3$$
(14.51)

FILTER PACK PORE VOLUME =
$$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$$
$$= 3.14\left[\left(\frac{0.67'}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](38.17-21.66)(0.25) = 1.33 \text{ ft}^3$$
(0.112225; 0.01; 16.51; 4.1275)
(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =
$$V_T = V_c + V_f = 0.41 + 1.33 = 1.74 \text{ ft}^3 \times 7.48 = 13.02 \text{ GAL}$$

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)	TD (ft bTOC)	COMMENTS
6/29/15 ~~11:09~~	11:09	–	21.66	–	–	–	–	–	–	35.32'	begin Bailing
6/29/15	11:29	–	21.70	10	10	–	–	–	–	36.45'	End Bailing (the bailer)
|	11:32	–	–	–	–	–	–	–	–	36.45'	Begin Surging
|	11:48	–	–	–	–	–	–	–	–	–	End Surging
|	11:51	–	–	–	–	–	–	–	–	–	Begin Bailing
|	11:58	–	21.80	5	15	–	–	–	–	36.45	End Bailing
|	12:13	2.5	21.71	–		~~7.~~	~~0.292~~	–	–	–	Begin pumping @ 35'
	12:15	3.0	~~21.71~~	–		~~7.~~	~~0.30~~	>1000	19	–	Pump moved up to top
	12:23	3.0	22.50	30	45	–	–	–	–	–	Pump shifted to middle
	12:25	3.0	22.50	14	59	6.91	2.69	401	18.3	–	
	12:33	3.0	22.53	~16	75	7.02	0.255	110	18.3	–	
	12:40	3.0	22.54	~28	103	6.81	0.247	029	18.3	–	
	12:50	3.0	22.54	~22	125	6.86	0.238	07	18.3	–	
	12:55	3.0	22.54	~15	140	6.76	0.236	04	18.3	–	
	13:00	3.0	22.54	~13	153	6.74	0.234	02	18.2	–	Pump Off

parameters Stabilized!

6/29/15

PAGE 1 OF 1

21.66 bTOC TD = 35.32'

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CG Roxane Phase 2	MW-02

PROJECT NO.	SITE	PREPARED BY
SB0721	1210 Hwy 395	K Agusson

METHOD
- PUMP: Redflow 2" Grundfos
- BAILER: 2" x 10' surge block
- OTHER:

DEVELOPMENT CRITERIA: Bail + surge for 1-2' per every foot of wet screen; pump until Turb. <5NTU

REMARKS: Continuous flow measurement, inside bowl. rig.

WELL CONSTRUCTION DATA (ft)

WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = 3.3' = ~~4~~ 3.25' (GROUND SURFACE)

INSIDE DIAM d_wID = 2.25" = 0.19'

OUTSIDE DIAM d_wOD = 2.44" = 0.20'

HOLE DIAMETER d_h = 8" = 0.67'

DEPTH TO:

SCREENED INTERVAL 10 (13.25') TO 25 bgs (28.25' bTOC)

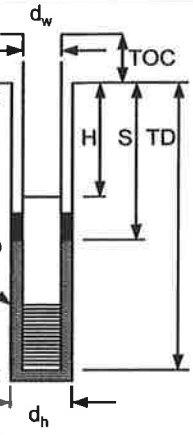
WATER LEVEL H = 16.77 bTOC

BASE OF SEAL S = 9' bgs = 12.25' bTOC

BASE OF CASING TD_C = 25' bgs = 28.25' bTOC

BASE OF FILTER PACK TD_F = 26.5' bgs = 29.75' bTOC

ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2 (28.25 - 16.77) = 0.33 \text{ ft}^3$$

FILTER PACK PORE VOLUME =

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

$$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](29.75 - 16.77)(0.25) = 1.04 \text{ ft}^3$$

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

TOTAL WELL VOLUME =

$V_T = V_c + V_f = .33 + 1.04 = 1.37 \text{ ft}^3 \times 7.48 = 10.25$ 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)	TD at bTOC	COMMENTS
6/29/15	~~13:36~~	13:36	—	16.77	—	—	—	—	—	—	26.60	Begin Bailing
6/29/15	13:54	—	—	10	10	—	—	—	—	—	—	End Bailing Hard B.M.
	13:58	—	—	—	—	—	—	—	—	—	—	Begin Surging 9'
	14:13	—	—	—	—	—	—	—	—	—	—	Begin Bailing
	14:27	—	17.22	9	19	—	—	—	—	—	28.37	End Bailing — 11.2 gal
	14:34	3.2	18.54	—	19	—	—	—	—	—	—	Begin Pumping
	14:35	3.2	18.54	8	~27	6.82	0.360	>1000	18.3	—	—	Set pump @ 22' bTOC
	14:40	3.3	19.02	11	~38	6.62	0.239	>1000	17.7	—	—	
	14:45	3.3	19.24	14	~57	6.70	0.221	510	17.7	—	—	
	14:50	3.3	19.29	20	~77	6.62	0.211	124	17.7	—	—	
	15:00	3.3	19.31	30	~102	6.59	0.197	34	17.7	—	—	
	15:12	3.3	19.40	50	~152	6.59	0.185	12	17.4	—	—	
	15:18	3.3	19.42	12	~164	6.57	0.183	02	17.8	—	—	
	15:20	3.3	19.42	8	~172	6.57	0.181	02	17.6	—	—	
	15:25	3.2	19.44	10	~182	6.56	0.181	01	17.5	—	—	Stop Pumping
						Parameters Stabilized						

6/29/15

PAGE 1 OF 1

Geosyntec consultants	PROJECT NAME: CG Roxane Phase 2		WELL NO.: MW-03
WELL DEVELOPMENT LOG	PROJECT NO.: SB0721	SITE: Olancha, CA (~~SB0721~~)	PREPARED BY: K. Agustsson

METHOD
- PUMP: Rediflow 2 grunds
- BAILER: 2" x 10' bailer
- OTHER: 2" x 10' surge block

DEVELOPMENT CRITERIA: Surge + Bail ≥ 2' per foot of wet screen; Pump until parameters stable and Turbidity < 5 NTU

REMARKS: Flowthrough cell built into Development rig.

WELL CONSTRUCTION DATA (ft)

WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = 3'2" ≈ 3.17'

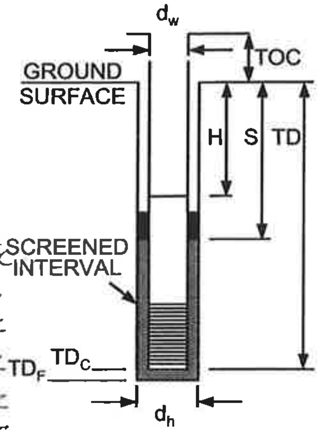
- INSIDE DIAM d_wID = 0.19'
- OUTSIDE DIAM d_wOD = 0.20'
- HOLE DIAMETER d_h = 0.67'

DEPTH TO: 8.17' – 23.17' bToc

- SCREENED INTERVAL 5' TO 20' bgs
- WATER LEVEL H = 13.85 bToc
- BASE OF SEAL S = 7.17' bToc
- BASE OF CASING TD_C = 23.17 bToc

BASE OF FILTER PACK TD_F = 24.67 bToc

ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2(TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2(23.17 - 13.85) = 0.26 \text{ ft}^3$$

(0.009025)

FILTER PACK PORE VOLUME =

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

$$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](24.67 - 13.85)(0.25) = 0.87 \text{ ft}^3$$

(0.112225, 0.01, 2.705)

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

TOTAL WELL VOLUME =

$$V_T = V_c + V_f = 0.26 + 0.87 = 1.13 \text{ ft}^3 \times 7.48 = 8.45 \text{ GAL}$$

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)	TD (ft bToc)	COMMENTS
6/30/15	11:39	—	13.85	—	—	—	—	—	—	22.84	Start surging (~~Bailing~~)
	11:58	—	—	—	—	—	—	—	—	—	Stop surging
	12:00	—	—	—	—	—	—	—	—	—	Begin Bailing
	12:05	—	—	5	5	—	—	—	—	—	Stop Bailing
	12:20	—	14.28	—	—	—	—	—	—	22.84	Measure well depth
	12:26	3.2	13.97	—	5	—	—	—	—	—	Start Pumping full screen
	12:40	400 mil/min	—	11	16	8.13	0.554	>1000	20.1	—	Continue pump @ ... turn flow rate down.
	12:45	0.24 gpm	21.51	~~0.5~~ 1.2	~~16.5~~ 17.2	8.12	0.499	315	19.9	—	
	12:50	0.24	21.59	~~0.5~~ 1.2	~~17~~ 18.4	7.95	0.475	55	20.5	—	
	13:00	0.24	21.62	~~0.5~~ 1.2	~~17.5~~ 19.6	7.89	0.463	32	20.3	—	
	13:10	0.24	21.71	2.4	22	7.82	0.467	16	19.9	—	
	13:20	0.24	21.70	2.4	24.4	7.71	0.469	10	20.2	—	
	13:25	0.24	21.70	1.2	25.6	7.67	0.466	06	20.2	—	Stop Pumping
						Parameters Stabilized					Formation is very clayey + silty, low flow rate + lots of fines made it difficult to lower turbidity below 5 NTU.

Total Gal (margin): 17.2, 18.4, 19.6

K. Agustsson 6/30/15

PAGE 1 OF ___

FORMS/WELL DEVELOPMENT LOG

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CG Roxar Phase 2	MW-04
PROJECT NO.	**SITE**
SB0721	Olacha, CA
PREPARED BY	
K. Agustsson	

METHOD
- PUMP: Redi-flow 2 groundfos
- BAILER: 2"x10' bailer
- OTHER: 2"x 10' surge block

DEVELOPMENT CRITERIA
Bail + surge ~1-2' per foot of wetted screen; pump until parameters stabilized and Turbidity <5NTU

REMARKS
H2O Measurements taken from flow-through cell built into Dekel rig

WELL CONSTRUCTION DATA (ft)

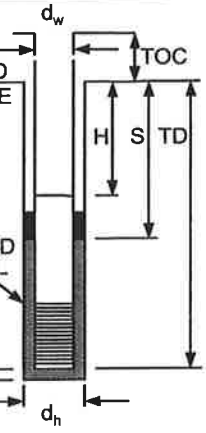
WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = 3.08' bTOC

- INSIDE DIAM d_wID = 0.19'
- OUTSIDE DIAM d_wOD = 0.20'
- HOLE DIAMETER d_h = 0.67'

DEPTH TO: 8.08' - 23.08' bTOC

- SCREENED INTERVAL 5' TO 20' bgs
- WATER LEVEL H = 11.11
- BASE OF SEAL S = 4' bgs = 7.08' bTOC
- BASE OF CASING TD_C = 20' bgs = 23.08' bTOC
- BASE OF FILTER PACK TD_F = 21.5' bgs = 24.58' bTOC
- ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2 (23.08 - 11.11) = 0.34 \text{ ft}^3$$

FILTER PACK PORE VOLUME =

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

$$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](24.58 - 11.11)(0.25) = 1.08 \text{ ft}^3$$

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

TOTAL WELL VOLUME =

$$V_T = V_c + V_f = 0.34 + 1.08 = 1.42 \text{ ft}^3 \times 7.48 = 10.62 \text{ GAL}$$

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)	TD (ft bTOC)	COMMENTS
7/1/15	10:10	—	11.11	—	—	—	—	—	—	21.55	Begin Bailing
	10:15	—	—	5	5	—	—	—	—	—	End Bailing
	10:15	—	11.16	5	5	—	—	—	—	22.40	End Bailing (almost Ho)
	10:18	—	—	—	—	—	—	—	—	—	Begin Surging
	10:33	—	—	—	—	—	—	—	—	—	Stop Surging
	10:35	—	—	—	—	—	—	—	—	—	Begin Bailing
	10:43	—	12:10	10	15	—	—	—	—	22.94	End Bailing
	10:48	2.5	20.00	—	15	—	—	—	—	—	Begin Pumping @ 22.5
	10:55	1.1	21.07	12	27	9.93	1.58	>1000	18.3	—	Drop flow rate.
	11:05	1.0	22.40	11	38	10.04	1.47	>1000	18.4	—	
	11:15	1.0	20.42	10	48	10.14	1.52	900	18.5	—	
	11:25	1.0	19.26	10	58	10.15	1.48	365	18.5	—	
	11:35	1.2	19.20	14	72	10.13	1.43	244	18.5	—	
	11:55	1.2	19.57	23	95	10.10	1.35	174	18.4	—	* Stopped measurement because of weather.
	12:10	1.1	19.72	20	115	10.05	1.30	132	18.5	—	
	12:20	1.1	19.81	10	125	10.06	1.31	111	18.5	—	Turbidity starting to try stressing the well
	12:35	1.0	20.50	15	140	9.89	1.25	>1000	18.3	—	Adjust flow rate
	12:45	0.7	21.39	7	147	10.05	1.29	130	18.4	—	
	12:55	0.7	21.50	6	153	10.06	1.28	94	18.4	—	
	13:05	0.7	21.41	7	160	10.12	1.34	75	18.6	—	
	13:15	0.6	21.36	6	166	10.14	1.30	58	18.8	—	
	13:25	0.6	21.38	5	171	10.16	1.37	55	18.7	—	
	13:35	0.6	21.41	5	176	10.15	1.35	46	18.7	—	Pump off & let rest

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME: CG Roxana Phase 2 | WELL NO.: MW-04
PROJECT NO.: SB0721 | SITE: MW-04, Okaloosa | PREPARED BY: K. Agustsson

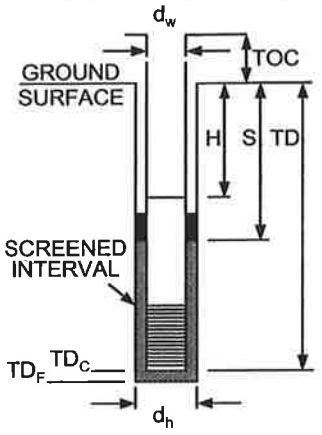
METHOD
PUMP: See pg 1
BAILER:
OTHER:

DEVELOPMENT CRITERIA: See pg 1

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: See pg 1
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 = See pg 1
$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$
$= 3.14\left[\left(\frac{\quad}{2}\right)^2 - \left(\frac{\quad}{2}\right)^2\right](\quad - \quad)(\quad) = \quad ft^3$
(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)	TD (ft btoc)	COMMENTS
7/1/15	14:38	1.1	11.36	—	176	—	—	—	—	—	Restart pumping @ 22
	~~14:40~~	~~1.00~~	19.81	12	188	10.15	1.57	500	18.8	—	
	14:50	1.00	20.94	10	198	9.99	1.22	222	18.7	—	
	15:05	0.7	21.24	17	215	10.05	1.30	78	18.8	—	
	15:15	0.7	21.40	8	223	10.04	1.29	53	18.9	—	
	15:25	0.7	21.41	7	230	10.07	1.33	36	19.0	—	
	15:35	0.7	21.39	8	238	10.10	1.37	26	19.0	—	
	15:45	0.7	21.70	8	246	10.12	1.37	38	19.0	—	
	15:55	0.7	21.81	6	252	10.12	1.38	37	19.0	—	
	16:00	0.7	21.78	4	256	10.12	1.38	18	19.0	—	
	16:05	0.7	21.69	4	260	10.14	1.42	18	19.0	—	
	16:10	0.7	21.78	4	264	10.14	1.42	17	18.9	—	
	16:15	0.7	21.76	4	268	10.14	1.42	16	19.0	—	
	16:20	0.7	21.74	4	272	10.12	1.41	15	19.0	—	
	16:25	0.7	21.83	4	276	10.12	1.39	14	18.9	—	
	16:30	0.7	21.79	3	279	10.4	1.38	13	18.9	—	
	16:35	0.7	21.75	4	283	10.13	1.39	13	19.0	—	Stop pumping couldn't get Turbidity below 13 NTU.
						parameters stabilized					

7/1/15

PAGE 2 OF 2

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME	WELL NO.
CG Roxane Phase 2	MW-05

PROJECT NO.	SITE	PREPARED BY
SB0721	1210 Hwy 395	K. Agustsson

METHOD
- PUMP: Redflow 2 Grundfos
- BAILER: 2" x 10' Bailer
- OTHER: 2" x 10' Surge block

DEVELOPMENT CRITERIA: Pump until parameters stabilized and Turbidity <5NTU

REMARKS: In-Truck flowcell used for measurements.

WELL CONSTRUCTION DATA (ft)

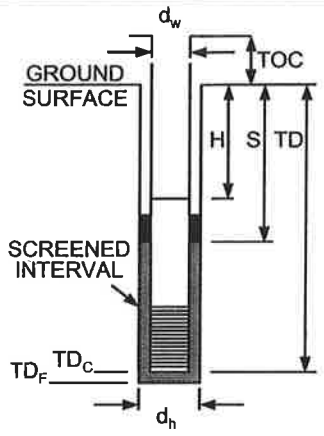
WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = ____

- INSIDE DIAM d_wID = 0.19
- OUTSIDE DIAM d_wOD = 0.20
- HOLE DIAMETER d_h = 0.67

DEPTH TO:
- SCREENED INTERVAL 5 TO 20
- WATER LEVEL H = 7.8
- BASE OF SEAL S = 4 bgs =
- BASE OF CASING TD_C = 20 bgs =
- BASE OF FILTER PACK TD_F = 21.5 bgs =

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)	TD (ft btoc)	COMMENTS
6/30/15	5:20	—	7.8	—	—	—	—	—	—	23.54	Begin Surge: Hard Bottom
	8:39	—	—	—	—	—	—	—	—	—	Stop Surge
	8:41	—	—	—	—	—	—	—	—	—	Begin Bailing
	8:59	—	7.95	5	5	—	—	—	—	23.55	Stop Bailing. Hard Bottom
	8:53	3.4	7.95	—	5	—	—	—	—	—	Begin pumping
	8:55	3.4	10.83	15	20	—	3.68 (4.44)	—	—	—	chocolate milk consistency
	9:00	3.4	10.85	10	30	9.80	4.44	>1000	18.9	—	chocolate milk
	9:10	3.4	11.11	30	60	9.80	3.72	849	18.9	—	Brown water
	9:20	3.4	11.11	30	90	9.77	3.78	>1000	19.0	—	Brown water.
	9:30	3.3	12.80	35	125	9.80	3.83	>1000	19.0	—	Brown water
	9:38	40+	22.0	40	165	—	—	>1000	—	—	Try increase flowrate to stress well
	9:45	3.0	22.3	15 (180)	180	9.77	3.78	250	18.8	—	
	9:50	3.2	21.50	15	195	9.80	3.86	47	19.4	—	
	9:55	3.2	20.15	15	210	9.78	3.77	10	20.8	—	
	10:05	3.2	19.82	35	245	9.77	3.80	02	20.1	—	Looks like Compost Tea.
	10:10	3.2	19.65	10	255	9.80	3.86	03	19.1	—	Pump off
						← parameters Stabilized					

6/30/15

Geosyntec consultants

WELL DEVELOPMENT LOG

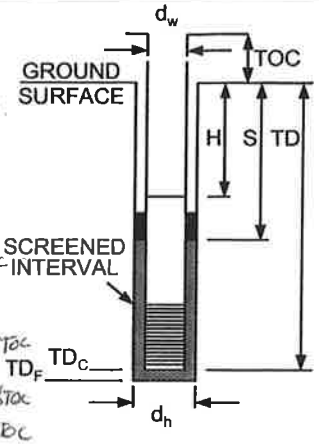
PROJECT NAME: GG Roxane | WELL NO.: MW-06
PROJECT NO.: SB0721 | SITE: 1210 S Hwy 395 | PREPARED BY: K. Augustsson

METHOD
PUMP: Redi-flow 2" grundfos
BAILER: 2" x 10' Surge block
OTHER: 2" x 10' bailer

DEVELOPMENT CRITERIA: Bail + Surge for 1-2' per every foot of wet screen; pump until Tub. <5 NTU
REMARKS: Continuous flow measurement inside devel. rig

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = 3.17' a.g.s
INSIDE DIAM d_wID = 0.19'
OUTSIDE DIAM d_wOD = 0.20'
HOLE DIAMETER d_h = 0.67'
DEPTH TO: 11.17 bTOC 26.17 bTOC
SCREENED INTERVAL 8 TO 23
WATER LEVEL H = 13.17'
BASE OF SEAL S = 7' bgs = 10.17 bTOC
BASE OF CASING TD_C = 23' bgs = 26.17 bTOC
BASE OF FILTER PACK TD_F = 23' bgs = 26.17 bTOC
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =
$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2 (26.17 - 13.17) = 0.37$ ft³

FILTER PACK PORE VOLUME =
$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$
$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](26.17 - 13.17)(0.25) = 1.04$ ft³
(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =
$V_T = V_c + V_f = 0.37 + 1.04 = 1.41$ ft³ × 7.48 = 10.54 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)	TD (ft bTOC)	COMMENTS
6/29/09	16:25	—	13.17'	—	—	—	—	—	—	25.45	Begin Bailing
	16:40	—	—	~~5~~ 10	~~5~~ 10	—	—	—	—	—	End Bailing
	16:42	—	—	—	—	—	—	—	—	—	Begin Surging
	16:58	—	—	—	—	—	—	—	—	—	End Surging
	17:00	—	—	—	—	—	—	—	—	—	Begin Bailing
	17:18	—	13.22	15	25	—	—	—	—	26.45	End Bailing - Hard Bot
	17:25	3.3	13.18	—	25	8.14	2.18	>1000	20.3	—	Begin Pumping @ Bottom of Screen
	17:35	3.4	15.30	25	50	8.29	2.11	>1000	21.0	—	Continue Pump @ 19' bTOC
	17:45	3.4	15.32	25	75	8.45	2.23	>1000	19.7	—	
	17:55	3.4	15.36	40	115	8.45	2.21	525	19.7	—	
	18:05	3.4	15.40	35	150	8.46	2.20	215	19.7	—	
	18:15	3.4	15.41	35	185	8.45	2.18	377	19.7	—	High turb. because sediment @ bottom of container - Cleaned it out
	18:25	3.4	15.42	29	214	8.46	2.17	60	19.6	—	
	18:35	3.4	15.45	30	244	8.45	2.16	45	19.6	—	
	18:45	3.4	15.45	40	284	8.47	2.15	28	19.6	—	NTU not dropping. Ask to slowly surge + pump
	18:55	3.4	15.52	40	324	8.48	2.12	414	19.6	—	
	19:05	3.4	15.53	30	354	8.50	2.12	217	19.8	—	Try increase flow to 3.7 gpm clean out formation
	19:15	7.0 gpm	16.85	~~50~~	~~404~~	—	—	—	—	—	No measurement; adjust flow rate
	19:25	3.4	15.60	35	439	8.44	2.07	041	20.0	—	clean turbidity meter
	19:35	3.5	15.60	35	474	8.51	2.09	11	19.5	—	
	19:40	3.5	15.60	~~10~~	~~484~~	8.52	2.09	09	19.5	—	*Turbidity Below 10 NTU
	19:45	3.5	15.60	20	504	8.51	2.08	06	19.4	—	Pump Off
						parameters stabilized					

Note, lowest NTU able to attain was 06 NTU.

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME: C G Roxane Phase 2			WELL NO. MW-07
PROJECT NO. SB0721	SITE: Olancha, CA		PREPARED BY: K. Agustsson

METHOD
- PUMP: Rediflow 2 grundfos
- BAILER: 2" x 10' Bailer
- OTHER: 2" x 10' Surge Block

DEVELOPMENT CRITERIA: Pump until parameters stabilize + Turbidity < 5 NTU

REMARKS: Measurements continuous via Development rig truck.

WELL CONSTRUCTION DATA (ft)

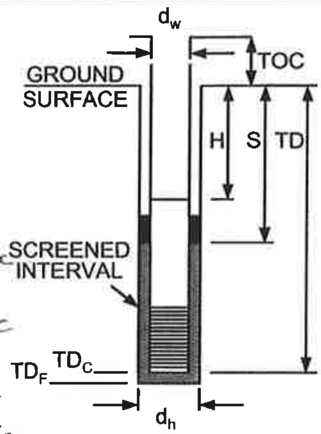
WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = 3'1" = 3.08

- INSIDE DIAM d_wID = 0.19'
- OUTSIDE DIAM d_wOD = 0.20
- HOLE DIAMETER d_h = 0.67'

DEPTH TO:
- SCREENED INTERVAL 5 TO 20 bgs (8.08 to 23.08 bTOC)
- WATER LEVEL H = 8.14 bTOC
- BASE OF SEAL S = 7.08 bTOC
- BASE OF CASING TD_C = 23.08 bTOC
- BASE OF FILTER PACK TD_F = 24.6 bTOC

ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_c - H) = 3.14\left(\frac{0.19}{2}\right)^2 (23.08 - 8.14) = \sout{19.94}\ 0.42 \text{ ft}^3$$

(KA) ~~0.57~~ (KA) 0.42

FILTER PACK PORE VOLUME =

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

$$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](24.60 - 8.14)(0.25) = 1.32 \text{ ft}^3$$

(0.112225, 0.01, 4.115)

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

TOTAL WELL VOLUME =

$V_T = V_c + V_f =$ ~~0.57~~ 0.42 (KA) + 1.32 = ~~1.89~~ 1.74 (KA) ft³ × 7.48 = ~~14.14~~ 13.02 (KA) GAL

DEVELOPMENT LOG

DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	TOTAL WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	TD (ft btoc)	COMMENTS (possibly ~6' silt)
6/30/15	07:10	—	8.14	—	—	—	—	—	—	15.85	Begin Bailing
	07:30	—	22.45	3.5	3.5	—	—	—	—	22.70	~~End Bailing~~ Continue Bailing
	07:40	—	21.83	—	—	—	—	—	—	22.71	water not recharging fast.
											Lots of silt @ bottom; End Bailing; Return later
	16:42	—	8.19	—	—	—	—	—	—	—	Return back to check level
	16:45	—	—	—	—	—	—	—	—	—	Begin surging
	~~15~~17:00	—	—	—	—	—	—	—	—	—	Stop surging
	17:02	—	—	—	—	—	—	—	—	—	Begin Bailing
	17:10	—	21.06	—	—	—	—	—	—	21.45	Pause Bailing
	17:12	—		—	—	—	—	—	—	—	Continue Bailing w/ small Bailer
	17:22	—	~22.	— (KA)	— (KA)	—	—	—	—	22.43	Picking up fine sand
	17:27	—	22.73	4.5	8.0	—	—	—	—	22.79	+ Medium Sand
—	—	—	—	—	—	—	—	—	—	—	Hard Bottom; Stop Bailing
											Return later
7/1/15	13:52	—	8.05	—	—	—	—	—	—	22.81	Return to see water level; Begin low flow pump
	14:02	unknown	dry	3.0	11.0	—	—	—	—	22.81	Pump until dry
	—	—	—	—	return later						Very dark gray turbid water
	19:35	unknown	11.04	1.0	12.0	9.32	0.799	>1000	21.3	22.80	Bring turbidity down
											Only 1 minute of pumping
											Dried out well

21.9 btoc Bottom = 22' bTOC 22.17'

PAGE 1 OF ___

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME: CG Rotax Phase 2 Investigation
WELL NO.: MW-08
PROJECT NO.: SB0721
SITE: Olancha, CA
PREPARED BY: K Agustsson

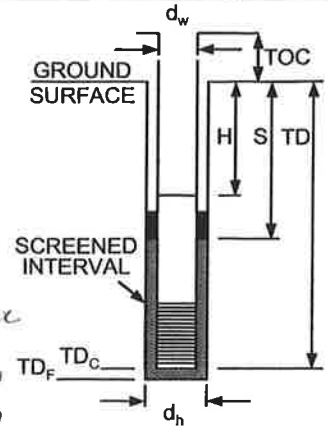
METHOD
PUMP: Redi flow 2 grundfos
BAILER: 2"x10' bailer
OTHER: 2"x10' surge block

DEVELOPMENT CRITERIA: Bail + Surge 1-2' per foot of wetted screen; pump until parameters stabilize ± 10% ≤ 5 NTU

REMARKS: Flow through cell built into decon. rig.

WELL CONSTRUCTION DATA (ft)

WELL CASING:
TOP OF CASING HEIGHT/DEPTH (TOC) = 3.17'
INSIDE DIAM d_wID = 0.19'
OUTSIDE DIAM d_wOD = 0.20'
HOLE DIAMETER d_h = 0.67'
DEPTH TO: 8.17' 23.17'
SCREENED INTERVAL 5 TO 20 bgs
WATER LEVEL H = 13.19' btoc
BASE OF SEAL S = 4' bgs = 7.17'
BASE OF CASING TD_C = 20' bgs = 23.17'
BASE OF FILTER PACK TD_F = 21.5' bgs = 24.67'
ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =
$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2 (23.17' - 13.19') = 0.28\ ft^3$

FILTER PACK PORE VOLUME =
$V_f = \pi\left[\left(\frac{d_h}{2}\right)^2 - \left(\frac{d_wOD}{2}\right)^2\right](TD_F - (S \text{ or } H))(P)$
$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](24.67' - 13.19')(0.25) = 0.92\ ft^3$
(if S > H, use S. If S < H, use H)

TOTAL WELL VOLUME =
$V_T = V_c + V_f = 0.28 + 0.92 = 1.20\ ft^3 \times 7.48 = 9.00$ GAL

DATE	TIME	FLOW RATE (gpm)	DEPTH TO WATER (ft-btoc)	WATER REMOVED (gal)	TOTAL WATER REMOVED (gal)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	TURBIDITY (NTU)	TEMPERATURE (Degrees C)	TD (ft. btoc)	COMMENTS
7/01/15	07:50	—	13.19'	—	—	—	—	—	—	23.50'	Begin w/surging
	08:06	—	—	—	—	—	—	—	—	—	Stop surging
	08:10	—	—	—	—	—	—	—	—	—	Begin Bailing
	08:20	—	13.19'	10	10	—	—	—	—	23.50'	End Bailing
	08:30	2.4	13.80'	—	10	—	—	—	—	—	Begin Pumping @ 22' btoc
	08:35	2.4	13.85	10	20	7.46	0.310	>1000	17.3	—	
	08:40	2.5	13.87	11	31	7.23	0.286	370	17.4	—	
	08:45	2.5	13.89	15	46	7.22	0.284	189	17.3	—	
	08:50	2.5	13.91	11	57	7.17	0.282	116	17.3	—	
	08:55	2.5	13.91	12	69	7.16	0.283	27*	17.3	—	*Turbidity incorrect re calibrate then
	09:05	2.5	13.92	30	99	7.16	0.294	37	17.5	—	
	09:10	2.5	13.93	13	112	7.47	0.301	18	17.4	—	
	09:15	2.5	13.94	10	122	7.47	0.301	16	17.4	—	
	09:20	2.5	13.94	10	132	7.49	0.319	11	17.4	—	
	09:25	2.5	13.94	16	148	7.51	0.320	08	17.3	—	
	09:30	2.5	13.94	14	162	7.54	0.340	06	17.3	—	
	09:35	2.5	13.94	14	176	7.59	0.350	05	17.5	—	
	09:40	2.5	13.94	10	186	—	parameters stabilized				Pump OFF

7/1/15

PAGE 1 OF ___

Geosyntec consultants

WELL DEVELOPMENT LOG

PROJECT NAME: CG Roxane Phase 2

WELL NO.: MW-09

PROJECT NO.: SB0721

SITE: Olancha, CA

PREPARED BY: K. Agustsson

METHOD
- PUMP: Rediflow 2 grundfos
- BAILER: 2" x 10' bailer
- OTHER: 2" x 10' surge block

DEVELOPMENT CRITERIA: Bail + Surge 1-2 per foot of wetted screen; Pump until parameters stable + Turb. < 5 NTU

REMARKS: flow through cell built into devel. rig

WELL CONSTRUCTION DATA (ft)

WELL CASING:

TOP OF CASING HEIGHT/DEPTH (TOC) = 3.17'

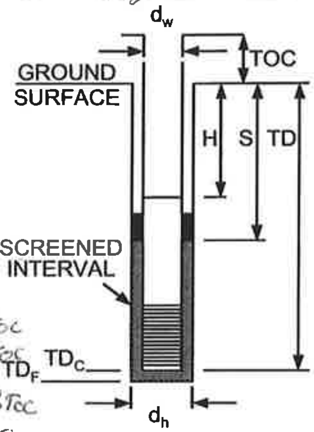
- INSIDE DIAM d_wID = 0.19'
- OUTSIDE DIAM d_wOD = 0.20'
- HOLE DIAMETER d_h = 0.67'

DEPTH TO: 12.17' — 27.17' bToc

- SCREENED INTERVAL 9 TO 24 bgs
- WATER LEVEL H = 15.85 bToc
- BASE OF SEAL S = 8 bgs = 11.17' bToc
- BASE OF CASING TD_C = 24 bgs = 27.17' bToc

BASE OF FILTER PACK TD_F = 27.17' bToc

ESTIMATED FILTER PACK POROSITY P = 0.25



WELL VOLUME CALCULATION

CASING VOLUME =

$$V_c = \pi\left(\frac{d_wID}{2}\right)^2 (TD_C - H) = 3.14\left(\frac{0.19}{2}\right)^2 (27.17 - 15.85) = 0.33 \text{ ft}^3$$

0.00925 11.32

FILTER PACK PORE VOLUME =

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

$$= 3.14\left[\left(\frac{0.67}{2}\right)^2 - \left(\frac{0.20}{2}\right)^2\right](27.17 - 15.85)(0.25) = 0.91 \text{ ft}^3$$

0.1122 0.01

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

TOTAL WELL VOLUME =

$$V_T = V_c + V_f = 0.33 + 0.91 = 1.24 \text{ ft}^3 \times 7.48 = 9.28 \text{ GAL}$$

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)	TD (ft bTOC)	COMMENTS
6/3/15	14:35	—	15.85	—	—	—	—	—	—	26.2	Begin Surging
	14:51	—	—	—	—	—	—	—	—	—	End Surging
	14:53	—	—	—	—	—	—	—	—	—	Begin Bailing
	15:03	—	16.58	10	10	—	—	—	—	27.32	End Bailing (Hard Bottom)
	15:10	2.2	16.17	—	10	—	—	—	—	—	Begin pumping
	15:20	1.0	24.78	12	22	8.35	1.13	>1000	16.5	—	Pump @ 27' bToc
	15:30	1.0	25.60	10	32	8.37	1.14	719	16.0	—	continue pumping.
	15:40	1.0	25.79	12	44	8.24	1.11	051	16.6	—	
	15:45	1.0	26.01	6	50	8.25	1.11	20	16.2	—	
	15:55	1.[illegible]	26.20	10	60	8.11	1.10	23	17.2	—	
	16:05	1.[illegible]	25.78	14	74	8.05	1.09	05	16.1	—	slow down pump
	16:10	1.1	25.67	5	79	8.01	1.09	0	16.2	—	
	16:15	1.1	25.74	5	84	8.01	1.09	0	16.2	—	Pump OFF
							parameters Stabilized				

[signature] 6/30/15

PAGE 1 OF 1

SOIL GAS PROBE MEASUREMENTS

Geosyntec consultants
engineers | scientists | innovators
10875 Ranch Bernardo Road, Suite 200
San Diego, Ca. 92127
858.674.6559 fax 858.674.6586

Project Name: CG Roxane
Project Number: SB0746
Phase Number:
Date: 7/8/15 Weather: sunny
Field Personnel: N. Godinez
Tracer Gas: He

Probe # SV-01
PID Model # Ion Tiger
PID Serial # AB61240
Landtech GEM 2000 Landfill Gas Meter Serial # NA
Helium detector (model and serial number) Dielectric MGD-2002
Air Temperature ~75°F Atm. Pressure (in Hg)

Lamp: 10.6 eV

Field tubing blank (ppmv)	0.0	Time	0730	Initial Pressure/Vacuum (prior to pumping)	0.0	Time	0749

Shut-In Test
Performed at _____ " H_2O / " Hg Time:_____
☐ Pass ☐ Fail

Subsurface type ☐ Asphalt ☐ Concrete ☐ Grass ☒ Other:
Surface thickness: _____ in/cm ☐ unknown Steel Monument
(ie. asphalt of concrete surface) sand/gravel

3 Casing Volumes
☐ Sub-slab <0.1 L
Soil gas probe 5000 (mL)

Purge Time (min.): 5

Start Time	End Time	Elapsed Time (min)	Bag Volume (mL)	Purge Rate (mL/Min)	Total Vol (mL)	Well Head Vacuum (in H_2O)	CH4 (%)	CO2 (%)	O2 (%)	Tracer Gas (%) min	Tracer Gas (%) max	Tracer Gas (%) Sample	VOCs by PID (ppmv)
0750	0755	5	1000	1L/min	5000	0.0	—	—	—	30	70	0	4.4

Time	Location	Sample ID	Summa Canister ID	Initial Vacuum (in Hg)	Final Vacuum (in Hg)	% Tracer (Min)	% Tracer (Max)
0759	SV-01	SV-01-5-070815	LC278	-25.82	-3.58	30	70
	SV-01	SV-01-5-070815-DUP	LC1006	-26.00	-3.52	30	70

Comments: FC# A303

APPENDIX C

WELL PERMITS

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-01	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 12 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No 546945

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

6-2-15
DATE

Site Approval/Permit Application Approval — Date 6/9/15

Construction Inspection — Date

Final Approval — Date

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-02	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 6 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 546945

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

6-2-15
DATE

Marvin Moskovit 6/9/15
Site Approval/Permit Application Approval *Date*

Construction Inspection *Date*

Final Approval *Date*

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-03	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 546945

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

6-2-15
DATE

Marilyn Mann 6/9/15
Site Approval/Permit Application Approval *Date*

Construction Inspection *Date*

Final Approval *Date*

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-04	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 546945

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

6-2-15
DATE

Maarten Mosbaurt 6/9/15
Site Approval/Permit Application Approval *Date*

Construction Inspection *Date*

Final Approval *Date*

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-05	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 546945

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

6-2-15
DATE

Marcum Mashburn 6/9/15
Site Approval/Permit Application Approval *Date*

_____
Construction Inspection *Date*

_____
Final Approval *Date*

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-06	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 546945

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

6-2-15
DATE

Maryan Morehouse 6/9/15
Site Approval/Permit Application Approval *Date*

Construction Inspection *Date*

Final Approval *Date*

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-07	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 546945

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

6-2-15
DATE

Marvin Moskowitz 6/9/15
Site Approval/Permit Application Approval *Date*

_____
Construction Inspection *Date*

_____
Final Approval *Date*

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-08	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No 546945

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

6-2-15
DATE

Marion Markham 6/9/15
Site Approval/Permit Application Approval *Date*

Construction Inspection *Date*

Final Approval *Date*

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-09	Rotary ☐ Cable Tool ☐ Other ☑ Hollow Stem Auger

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

PROPOSED SEALING ZONE	SEALING MATERIAL (Check)
From 0 to 5 Feet	Neat Cement ☑ Bentonite Clay ☐ Cement Grout ☐ Concrete ☐

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

DATE OF WORK
Start 6/15/15
Completion 6/19/15

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:

(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.

☐ _____

_____

_____

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 ☐

$149.00 Fee paid on 6/9/15 Receipt No. 746945

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

6-2-15
DATE

Marvin Mackert 6/9/15
Site Approval/Permit Application Approval *Date*

Construction Inspection *Date*

Final Approval *Date*

APPENDIX D

WASTE TRANSPORTATION MANIFESTS

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	072015063

GENERATOR

5. Generator's Name and Mailing Address
Crystal Geyser Roxane, LLC
1210 US Highway 395
Olancha CA 93549
Generator's Phone: 530 938-1831

Generator's Site Address (if different than mailing address)

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: CAD097030893

	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	1,900	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Wear proper PPE while handling. Weights or volumes are approximate
Job# 35011-8-8 Profile# 27578

D121163

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: s/ Castaneda, J — Month: 08 Day: 06 Year:

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: Reyes Mata — Signature: — Month: 08 Day: 06 Year: 15

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

H-135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Marco Perea — Signature: — Month: 08 Day: 06 Year: 15

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #1

Soil Safe of California, Inc.

12328 Hibiscus Ave. Adelanto, CA 92301

ADE 121272

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professional Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest Number: A4-4669 Load #: 1 8/6/2015

Generator Site Information:

CRYSTAL GEYSER ROXANE, LLC

1210 US HIGHWAY 395

OLANCHA, CA 93549

Weighmaster Weighed at:

SOIL SAFE OF CALIFORNIA, INC..

12328 HIBISCUS AVE

ADELANTO, CA 92301

			Lbs	Tons	
J Provansal	**Time In:** 2:12:35 PM	**Gross Weight:**	46700	23.35	Manual Wt
J Provansal	**Time out:** 2:12:38 PM	**Tare Weight:**	39760	19.88	Manual Wt
		Net Weight:	6940	3.47	

Truck Number: 563

Trailer Number: 240

Commodity: Non Haz - Solids

Driver on Gross and Tare Transporter: AIS - SANTIAGO

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
8-6-15	Transporter		A07	4416/9	0101

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) 552-9001	
	Person to Contact: Joe Provanzal	
	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	CAR000144338
	Person to Contact: Jennifer Sherman	
	FAX#: (310) 522-0474	Customer Account Number 7704603

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 ☐	1		46700	39760	6940
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					3.47

List any exception to items listed above: AIS Project # 35011-8-8 Scale Ticket # 121272

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.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
George Castaneda	George Castaneda	08	06	15

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:	Signature and date:	Month	Day	Year
Santiago Diaz	Santiago Diaz	08	06	15

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
J. Provanzal	8-6-15

Please print or type.

TRANSPORTER COPY

APPENDIX E

LITHOLOGIC BORING 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 AP-4 **SHEET** 1 OF 1
START DRILL DATE Jun 25, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 25, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746

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 (%)	SAMPLE PID READING (ppm)	SAMPLE TIME (00:00)	COMMENTS (1) Rig Behavior (2) Air Monitoring
1	Well graded SAND with gravel (SW); Grayish brown (2.5Y 5/2); Dry; Fine to very coarse sand; Fine to coarse gravel; (15,85,0); Nonplastic; Loose; NHCO/S											Hand auger to 5'
5	SAA					1			100		12:30	Soil sample + duplicate taken @ 5'
9				▽ Groundwater @ 9'								
10	SAA except less gravel (10,90,0) and wet					2			100		12:35	Heaving sands up to 10'
14												TD = 14' (temporary depth to collect water sample)
20												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith
NORTHING
EASTING
COORDINATE SYSTEM: NAD 1983

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

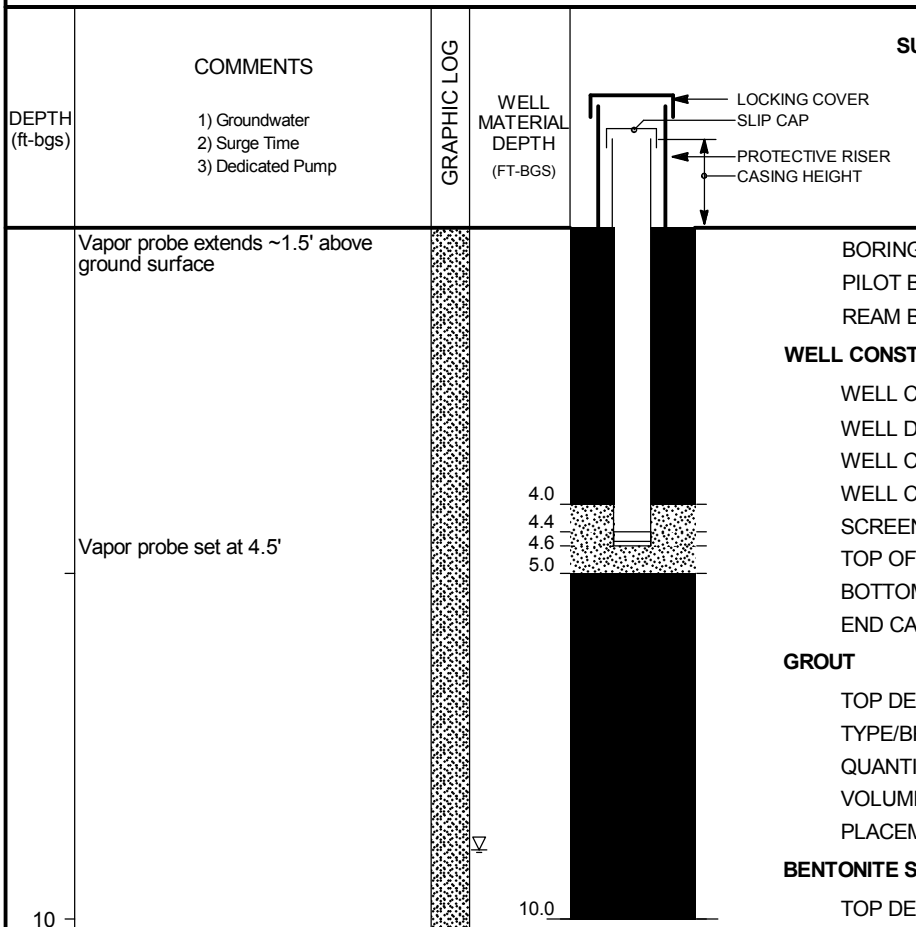
07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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 AP-4 **SHEET** 1 **OF** 1
START DRILL DATE Jun 25, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 25, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING**
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746



SURFACE COMPLETION:

TYPE NA
RISER HEIGHT
RISER DIAM.
WELL CASING HEIGHT NA
CONCRETE PAD SIZE NA

BORING DEPTH 14 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/25/2015
WELL DEPTH 10 ft bgs
WELL CASING DIAMETER
WELL CASING MATERIAL 1/4" nylaflow tubing
SCREEN SLOT SIZE/DIRECTION
TOP OF SCREEN 4.5 ft bgs
BOTTOM OF SCREEN 4.5 bgs
END CAP/SUMP LENGTH

GROUT

TOP DEPTH
TYPE/BRAND
QUANTITY USED
VOLUME FLUID USED
PLACEMENT METHOD

BENTONITE SEAL

TOP DEPTH 0-4 ft bgs and 5-10 ft bgs
TYPE/BRAND Med. bentonite chips and pellets
QUANTITY USED 2.89 cu. ft. total
VOLUME FLUID USED 20 gal
SET-UP TIME 20 min
PLACEMENT METHOD pour

TRANSITION SAND

TOP DEPTH
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

SAND/GRAVEL PACK

TOP DEPTH 4 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 0.32 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Rhino M5T **EASTING**
DRILL MTHD HSA **COORDINATE SYSTEM:**
DIAMETER 8" NAD 1983
LOGGER K. Agustsson **REVIEWER** R. Smith

DEDICATED PUMP SYSTEM:

TYPE/BRAND: NA
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-01 **SHEET** 1 OF 2
START DRILL DATE Jun 22, 15
FINISH DRILL DATE Jun 22, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3643.80
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
1	Well graded SAND (SW); Trace gravel; Grayish brown (2.5Y 5/2); Dry; Fine to very coarse sand; Fine gravel; (5,95,0); Nonplastic; Loose; NHCO/S										14:00	Hand auger to 5' bgs
5	SAA except trace silt (5,90,5)					1			90	0.2	14:25	
10	SAA (5,90,5)					2			20	0.3	14:30	
15	Silty SAND (SM); Dark yellowish brown (10YR 4/4); Moist; Fine and coarse sand; (0,35,65); Medium dense; FeOx staining; trace roots; NHCO/S					3			95	0.1	14:35	Soil sample collected @15'
20												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4017834.14000
EASTING 408352.31000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-01 **SHEET** 2 OF 2
START DRILL DATE Jun 22, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 22, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3643.80
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746

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 (%)	SAMPLE PID READING (ppm)	SAMPLE TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
21	Well graded SAND (SW); Brown (10YR 4/3); Wet; Fine to very coarse sand; (0,95,5); Nonplastic; Medium dense; NHCO/S					4			80	0.1	14:40	
22												
23				▽ Groundwater @ 23'								
24												
25	Poorly graded SAND (SP); Light yellowish brown (2.5Y 6/3); Wet; Coarse to very coarse sand; (0,100,0); Nonplastic; Medium dense; NHCO/S					5			95	0.2	14:55	
26												
27												
28												
29												
30	SAA except trace silt (0,95,5)					6			100		15:00	
31												
32												
33												Bottom of screen = 33' bgs
34												
35												TD = 35' bgs
36												
37												
38												
39												
40												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4017834.14000
EASTING 408352.31000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

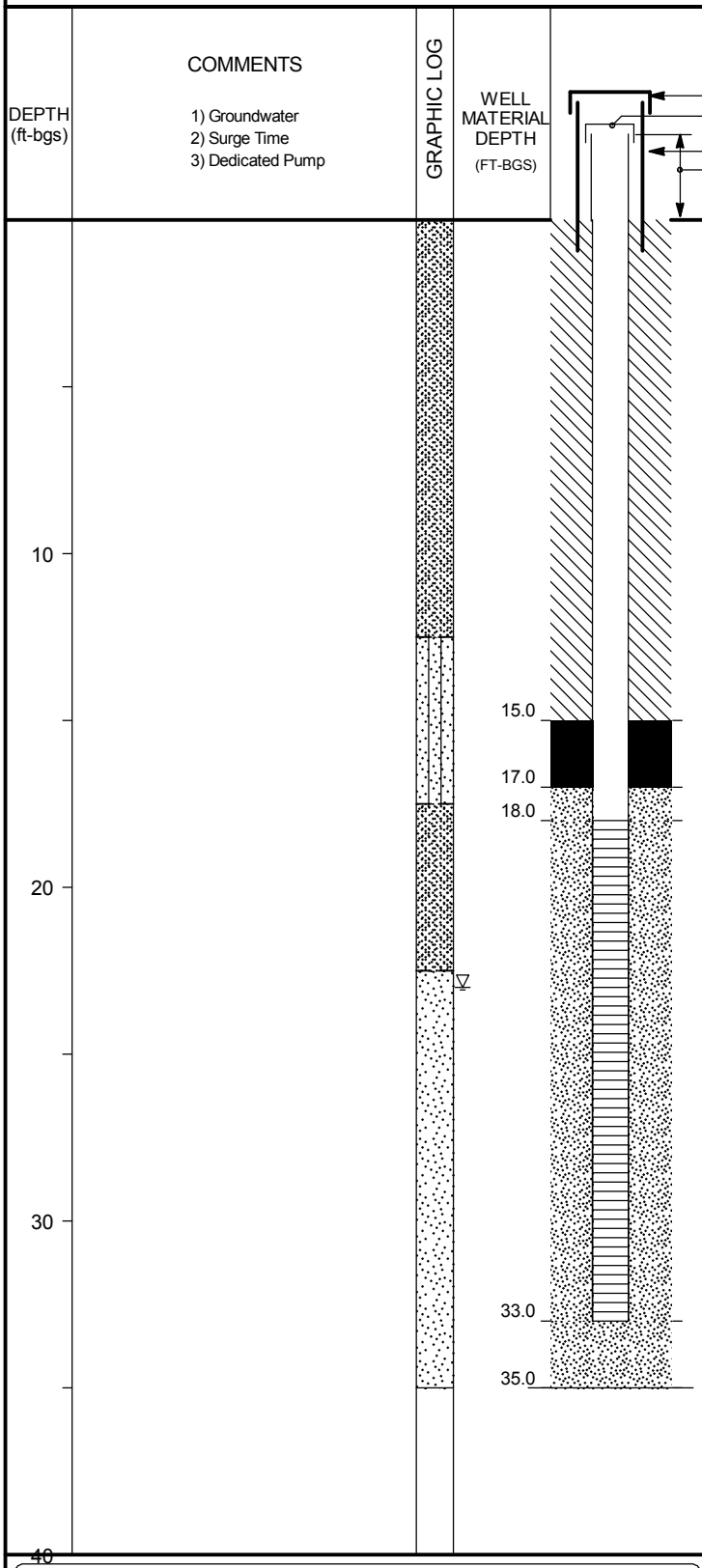
Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-01 **SHEET** 1 OF 1
START DRILL DATE Jun 22, 15
FINISH DRILL DATE Jun 22, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746

ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3643.80
DATUM NAD 1983



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.2 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 35 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/22/2015
WELL DEPTH 33 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 18 ft bgs
BOTTOM OF SCREEN 33 ft bgs
END CAP/SUMP LENGTH NA

GROUT

TOP DEPTH 0 ft bgs
TYPE/BRAND Portland IV/WyoBen Grout
QUANTITY USED 4.82 cu. ft.
VOLUME FLUID USED ~15 gal
PLACEMENT METHOD pour

BENTONITE SEAL

TOP DEPTH 15 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 0.64 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME 20 min
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 17 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4017834.14
EASTING 408352.31
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-02 **SHEET** 1 OF 2
START DRILL DATE Jun 25, 15
FINISH DRILL DATE Jun 25, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3638.21
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
1	Silty SAND (SM); Grayish brown (10YR 5/2); Dry; Fine and coarse sand; Trace fine gravel; (5,55,40); Nonplastic; Loose; NHCO/S											Hand auger to 5' bgs
5	SAA except an increase in coarse gravel (10,55,35)					1			90	1.0	17:27	
10	Sandy SILT (ML); Light yellowish brown (2.5Y 6/3); Dry; Fine to coarse sand; Trace fine gravel (5,35,60); Nonplastic; Soft; NHCO/S					2			90	0.2	17:31	Soil sample collected @10'
14				▽ Groundwater @ 14.5'								
15	Well graded SAND with silt (SW-SM); Light yellowish brown (2.5Y 6/3); Wet; Fine to coarse sand; Trace fine gravel (10,80,10); Nonplastic; Soft; NHCO/S					3			100	0.2	17:36	
16	Silty SAND (SM); Olive brown (2.5Y 4/4); Wet; Fine to coarse sand; Trace fine gravel; (0,65,35); Nonplastic; Dense; Some gleyed-colored spots											
17	Sandy SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; Fine to coarse sand; Trace clay content; (0,40,60); Low plasticity; Firm; NHCO/S											
18	Silty SAND (SM); Dark greenish gray (GLEY 5GY 4/1); Wet; Fine to coarse sand; Trace clay content; (0,75,25); Low plasticity; Firm;											

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith
NORTHING 4017907.34000
EASTING 408428.75000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-02 **SHEET** 2 OF 2
START DRILL DATE Jun 25, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 25, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3638.21
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746

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	BLOWS PER 6"	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
21	NHCO/S SAA (0,75,25)					4			80	0.8	17:43	Breathing space PID reading = 0.0 ppm
22	SAA except more coarse gravel, up to 1" diameter and Light yellowish brown (10YR 6/4)											
23												
24												
25	Well graded SAND (SW); Dark yellowish brown (10YR 4/6); Wet; Very fine to very coarse sand; (0,100,0); Nonplastic; Loose; NHCO/S					5			100	0.3	17:47	
26												TD = 26.5' bgs
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4017907.34000
EASTING 408428.75000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

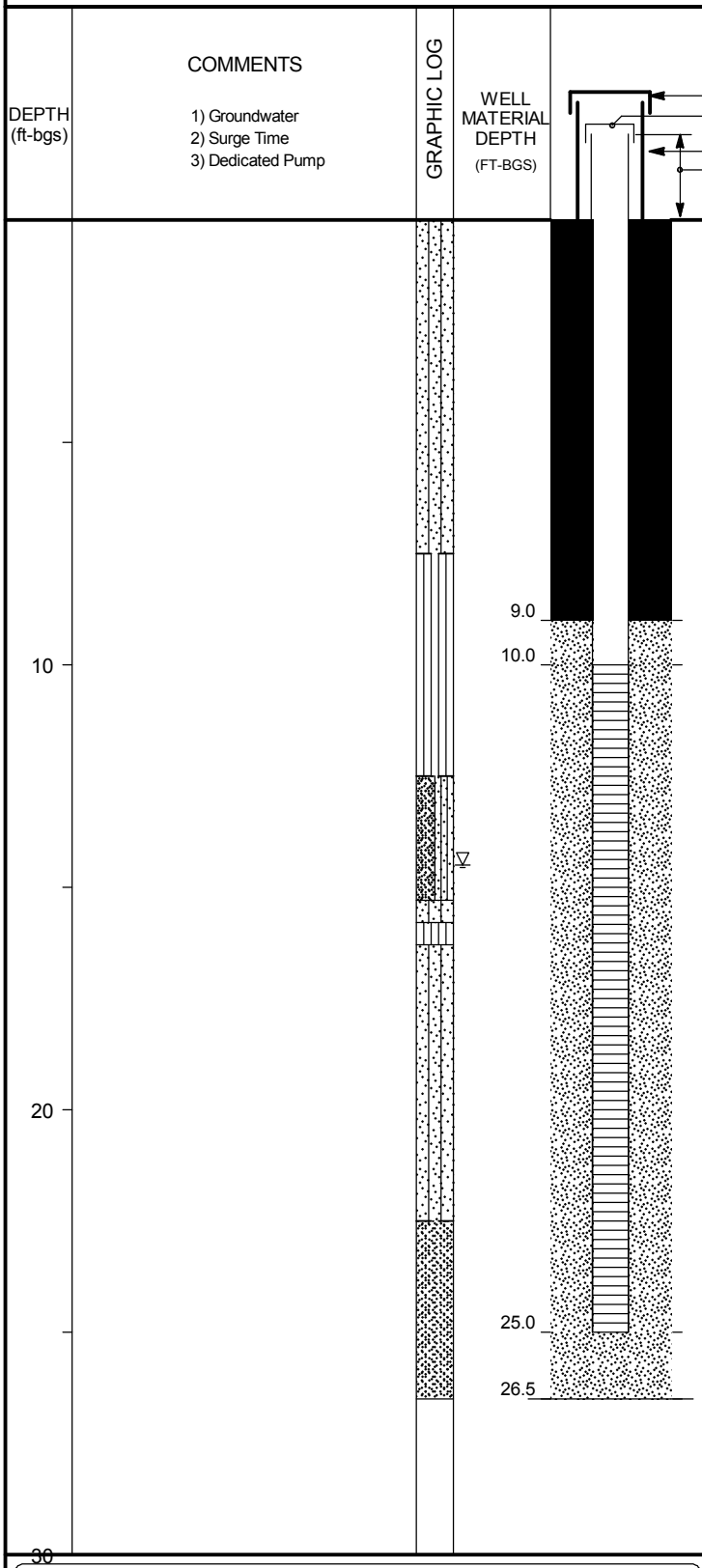
07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-02 **SHEET** 1 OF 1
START DRILL DATE Jun 25, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 25, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3638.21
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.3 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 26.5 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/25/2015
WELL DEPTH 25 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 10 ft bgs
BOTTOM OF SCREEN 25 ft bgs
END CAP/SUMP LENGTH NA

GROUT

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

BENTONITE SEAL

TOP DEPTH 0 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 2.89 cu. ft.
VOLUME FLUID USED 20 gal
SET-UP TIME 20 min
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 9 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4017907.34
EASTING 408428.75
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-03 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 23, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3618.26
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746

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
1	Well graded SAND (SW); Light brownish gray (2.5Y 6/2); Dry; Fine to very coarse sand; Fine to coarse gravel (10,90,0); Nonplastic; Loose; NHCO/S											Hand auger to 5'
5	SAA except an increase in coarse gravel to Well graded SAND with gravel (SW) (30,70,0)					1			40	0.0	16:05	Soil sample collected @ 5'
10	SAA except sand becomes wet			▽ Groundwater @ 10'		2			70	0.0	16:12	Breathing space PID reading = 0.0 ppm
11	Lean CLAY (CL); Black (10YR 2/1); Wet; Trace medium sand; (0,5,95); Medium plasticity; Soft; NHCO/S											
15	SAA except an increase in gravel (10,5,85)					3			90	0.2	16:20	
16	SILT (ML); Dark greenish gray (GLEY 5G 4/1); Wet; (0,0,100); Low plasticity; Soft; Trace roots; slight anoxic odor; NHCO/S											
20	Well graded sand (SW); Black (10YR 2/1); Fine to very coarse sand; Fine to coarse gravel; (10,90,0); Nonplastic; Dense; NHCO/S					4			80	0.0	16:25	Breathing space PID reading = 0.0 ppm
22	SILT (ML); Black (5Y 2.5/1); Wet; Trace fine to medium sand; (0,5,95); Low plasticity; Soft; NHCO/S											TD = 21.5'

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018339.18000
EASTING 408541.26000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

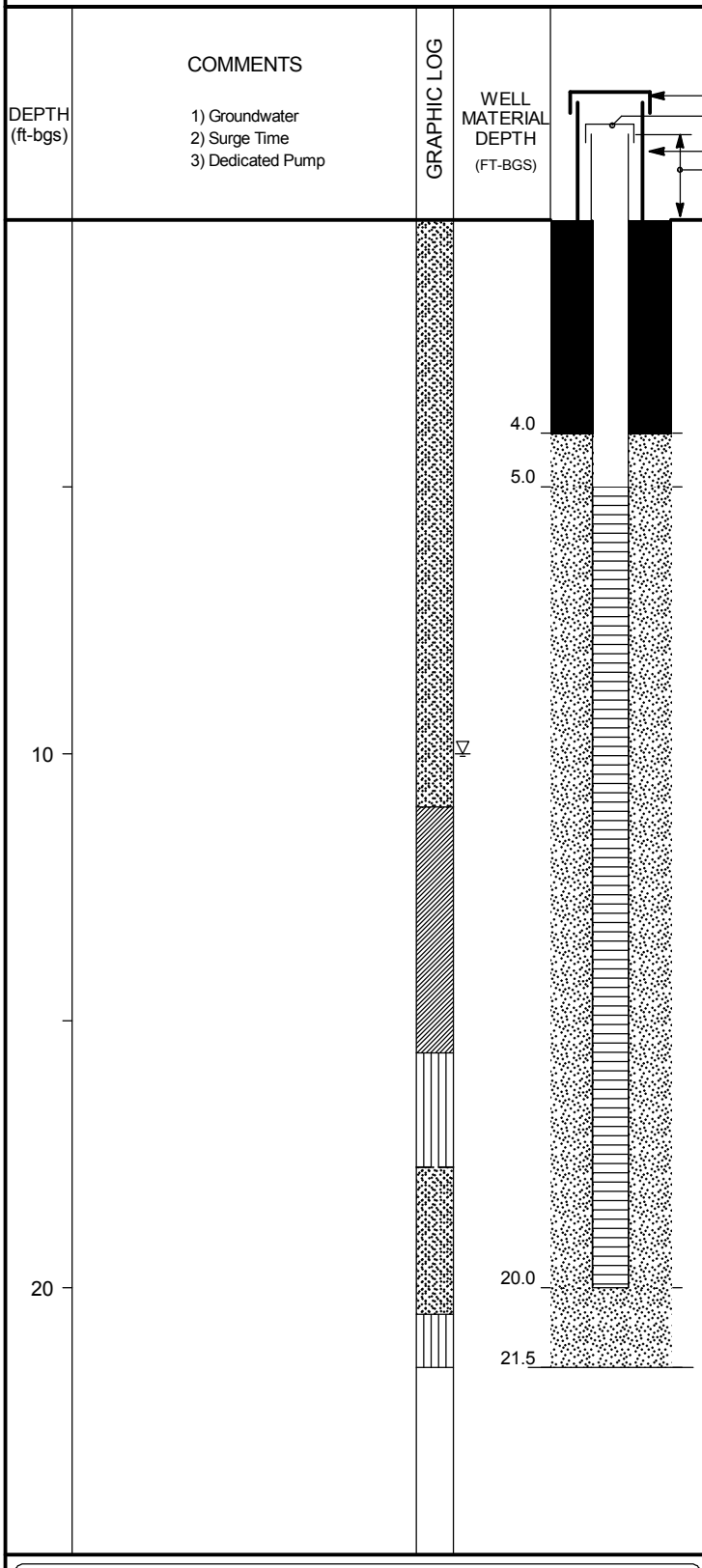
07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-03 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 23, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3618.26
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.2 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 21.5 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/23/2015
WELL DEPTH 20 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 5 ft bgs
BOTTOM OF SCREEN 20 ft bgs
END CAP/SUMP LENGTH NA

GROUT

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

BENTONITE SEAL

TOP DEPTH 0 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 1.28 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME overnight
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 4 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018339.18
EASTING 408541.26
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-04 **SHEET** 1 OF 1
START DRILL DATE Jun 24, 15
FINISH DRILL DATE Jun 24, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3615.22
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
1	Well graded SAND (SW); Light gray (10YR 7/2); Dry; Fine to very coarse sand; Fine to coarse gravel (10,90,0); Nonplastic; Loose; NHCO/S											Hand auger to 5'
5	SAA except less gravel (5,95,0)					1			70	0.7	12:34	Soil sample collected @ 5'
8				▽ Groundwater @ 8'								
10	SAA except (5,95,0); wet; and Light olive brown (2.5Y 5/3)					2			100	0.5	12:36	Breathing space PID reading = 0.0 ppm
11	SAA except becomes Light gray (2.5Y 7/2); (0,100,0)											
12	Lean CLAY (CL); Very dark gray (GLEY N 3/); Wet; (0,0,100); High plasticity; Firm; NHCO/S											
15	Well graded SAND with silt (SW-SM); Dark gray (2.5Y 4/1); Wet; Fine to coarse sand; (0,90,10); Nonplastic; Loose; NHCO/S					3			100	1.0	12:40	
17	SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; (0,0,100); Low to medium plasticity; Soft; NHCO/S											
20	Well graded SAND with silt (SW-SM); Dark gray (2.5Y 4/1); Wet; Fine to coarse sand; (0,90,10); Nonplastic; Loose; NHCO/S					4			70	1.3	12:45	Breathing space PID reading = 0.0 ppm
22	SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; Trace fine sand; (0,5,95); Low plasticity; Soft; NHCO/S											TD = 21.5'

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018389.67000
EASTING 408628.54000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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

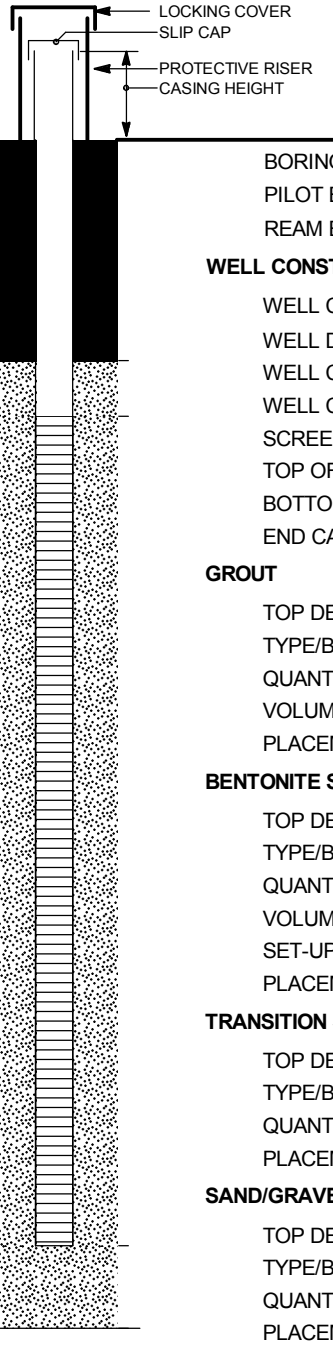
GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-04 **SHEET** 1 OF 1
START DRILL DATE Jun 24, 15
FINISH DRILL DATE Jun 24, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746

ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3615.22
DATUM NAD 1983

DEPTH (ft-bgs) | COMMENTS: 1) Groundwater 2) Surge Time 3) Dedicated Pump | GRAPHIC LOG | WELL MATERIAL DEPTH (FT-BGS)



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.1 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 21.5 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/24/2015
WELL DEPTH 20 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 5 ft bgs
BOTTOM OF SCREEN 20 ft bgs
END CAP/SUMP LENGTH NA

GROUT

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

BENTONITE SEAL

TOP DEPTH 0 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 1.28 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME overnight
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 4 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018389.67
EASTING 408628.54
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-05 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 23, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3608.33
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746

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 (%)	SAMPLE PID READING (ppm)	SAMPLE TIME (00:00)	COMMENTS (1) Rig Behavior 2) Air Monitoring
1	Well graded SAND (SW); Olive brown (2.5Y 4/3); Dry; Very fine to very coarse sand; Fine gravel (10,90,0); Nonplastic; Loose; NHCO/S											Hand auger to 5'
5	SAA except no gravel (0,100,0);			▽ Groundwater @ 5'		1			90	0.1	13:55	Soil sample collected @ 5' Breathing space PID reading = 0.0 ppm
7	SAA except an increase in very coarse sand											
10	Sandy SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; Very fine to fine sand; (0,40,60); Nonplastic; Soft; Gleyed staining; Marshy anoxic odor; NHCO/S					2			95	0.4	14:00	
15	Well graded SAND (SW); Dark greenish gray (GLEY 5GY 4/1); Wet; Very fine to coarse sand; (0,95,5); Nonplastic; Medium dense; NHCO/S					3			100	0.2	14:10	
17	Sandy SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; Very fine to fine sand; (0,40,60); Nonplastic; Soft; Gleyed staining; Marshy anoxic odor; NHCO/S											
20	Silty SAND (SM); Dark greenish gray (GLEY 5GY 4/1); Wet; Very fine sand; Trace coasrse sand; (0,60,40); Low plasticity; Soft; NHCO/S					4			100	0.7	14:15	Breathing space PID reading = 0.0 ppm
22	Sandy SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; Very fine and trace coarse sand; (0,30,70); Low plasticity; Soft; NHCO/S											TD = 21.5'

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018438.42000
EASTING 408737.46000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

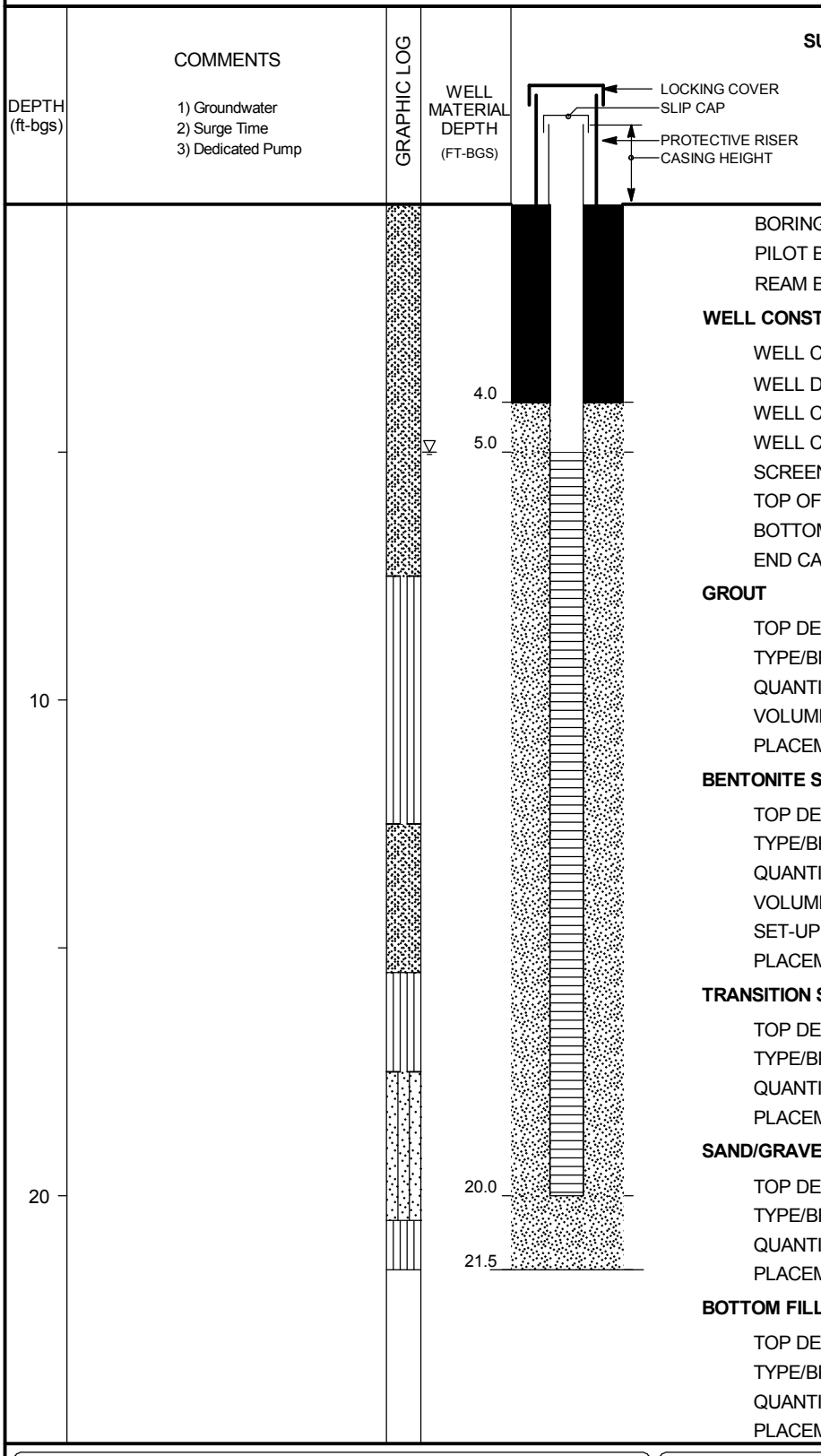
Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-05 **SHEET** 1 **OF** 1
START DRILL DATE Jun 23, 15
FINISH DRILL DATE Jun 23, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746

ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3608.33
DATUM NAD 1983



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.2 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 21.5 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/24/2015
WELL DEPTH 20 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 5 ft bgs
BOTTOM OF SCREEN 20 ft bgs
END CAP/SUMP LENGTH NA

GROUT

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

BENTONITE SEAL

TOP DEPTH 0 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 1.28 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME overnight
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 4 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018438.42
EASTING 408737.46
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-06 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15
FINISH DRILL DATE Jun 23, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3615.33
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
1	Well graded SAND (SW); Light olive brown (2.5Y 5/4); Dry; Fine to very coarse sand; Fine gravel (20,80,0); Nonplastic; Loose; NHCO/S											Hand auger to 5'; Soil very loose difficult to hand auger; Soil caving
5	SAA except a deserease in gravel and increase in silt (10,85,5)					1			90	1.0	09:00	
10	SAA (10,85,5)			▽ Groundwater @ 10'		2			60	1.4	09:05	Soil sample collected @ 10' Breathing space PID reading = 0.0 ppm
11	Well graded SAND (SW); Grayish brown (2.5Y 5/2); Moist; Fine to very coarse sand; (0,95,5); Nonplastic; Loose; NHCO/S											
15	SAA (0,95,5)					3			100	2.0	09:10	
16	Well graded SAND (SW); Dark gray (2.5Y 4/1); Wet' Very fine to coarse sand; Fine gravel; Trace coarse gravel; (5,90,5); Nonplastic; Loose; NHCO/S											
20	SAA except an increase in gravel (10,85,5)					4			80	4.5	09:15	
21	Poorly graded SAND with silt (SP-SM); Dark gray (5Y 4/1); Wet; Very fine to fine sand; Trace coarse sand; (0,90,10); Nonplastic; Loose; NHCO/S									1.9		
23												TD = 23'
30												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018282.15000
EASTING 408877.55000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

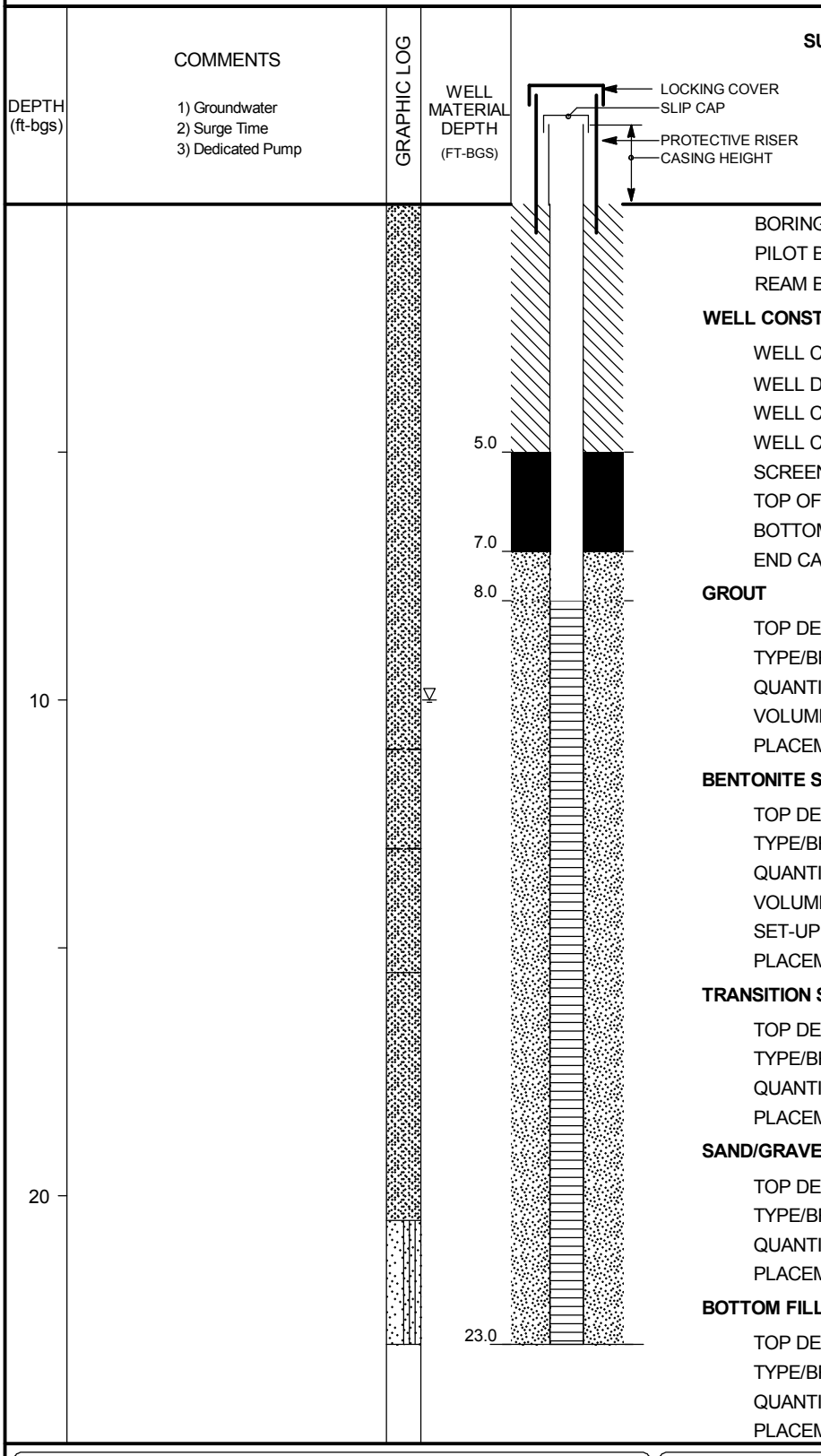
Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-06 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15
FINISH DRILL DATE Jun 23, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746

ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3615.33
DATUM NAD 1983



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.2 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 23 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/23/2015
WELL DEPTH 23 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 8 ft bgs
BOTTOM OF SCREEN 23 ft bgs
END CAP/SUMP LENGTH NA

GROUT

TOP DEPTH 0 ft bgs
TYPE/BRAND Portland IV/WyoBen Grout
QUANTITY USED 1.61 cu. ft.
VOLUME FLUID USED ~10 gal
PLACEMENT METHOD pour

BENTONITE SEAL

TOP DEPTH 5 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 0.64 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME 20 min
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 7 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018282.15
EASTING 408877.55
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-07 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15
FINISH DRILL DATE Jun 23, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3610.16
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
1	Well graded SAND (SW); Dark grayish brown (2.5Y 4/2); Dry; Fine to very coarse sand; Fine gravel (10,90,0); Nonplastic; Loose; NHCO/S											Hand auger to 5'
5	SAA (10,90,0)			Soil begins to be moist		1			80	0.6	11:34	Soil sample collected @ 5' Breathing space PID reading = 0.0 ppm
9				▽ Groundwater @ 9'								
10	SAA except Grayish brown (2.5Y 5/2) and Wet; Fine and coarse gravel; and trace silt (10,85,5); very loose					2			15	0.9	11:45	
15	SAA except no gravel (0,95,5)					3			10	1.6	11:52	
20	SAA exept trace fine and coarse gravel and no silt (5,95,0)					4			60	1.2	11:55	Breathing space PID reading = 0.0 ppm
21	Silty SAND (SM); Dark gray (2.5Y 4/1); Wet; Fine to coasre sand; Fine gravel; (5,60,35); Nonplastic; Very loose; Very water saturated; NHCO/S											TD = 21.5'
25												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018315.95000
EASTING 408945.01000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

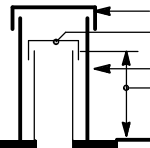
Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-07 **SHEET** 1 OF 1
START DRILL DATE Jun 23, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 23, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3610.16
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746

DEPTH (ft-bgs) | COMMENTS: 1) Groundwater 2) Surge Time 3) Dedicated Pump | GRAPHIC LOG | WELL MATERIAL DEPTH (FT-BGS)



4.0
5.0
10
20.0
21.5
20

SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.1 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 21.5 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/23/2015
WELL DEPTH 20 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 5 ft bgs
BOTTOM OF SCREEN 20 ft bgs
END CAP/SUMP LENGTH NA

GROUT

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

BENTONITE SEAL

TOP DEPTH 0 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 1.28 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME overnight
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 4 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018315.95
EASTING 408945.01
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-08 **SHEET** 1 OF 1
START DRILL DATE Jun 24, 15
FINISH DRILL DATE Jun 24, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3617.28
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
1	Well graded SAND with gravel (SW); Light yellowish brown (10YR 6/4); Dry; Fine to coarse sand; Fine to coarse gravel (20,80,0); Nonplastic; Loose; NHCO/S										07:35	Hand auger to 5' bgs; soil very loose; difficult to hand auger
5	SAA except less gravel (5,95,0)					1			85	1.2	07:40	Soil sample collected @ 5'
10	SAA except no gravel and wet; (0,100,0)			▽ Groundwater @ 10'		2			70	1.7	07:45	Breathing space PID reading = 0.0 ppm
11	SAA except an increase in gravel (10,90,0)											
15	SAA except some silt (0,95,5); and wet					3			80	1.8	07:50	
16	Poorly graded SAND (SP); Dark greenish gray (5GY 4/1); Wet; Fine to medium sand; trace silt; (0,95,5); Low plasticity; Medium dense;											
20	SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; (0,0,100); Low plasticity; Soft; NHCO/S					4			90	1.6	07:55	Breathing space PID reading = 0.0 ppm
21												TD = 21.5'
25												

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018406.65000
EASTING 408559.09000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

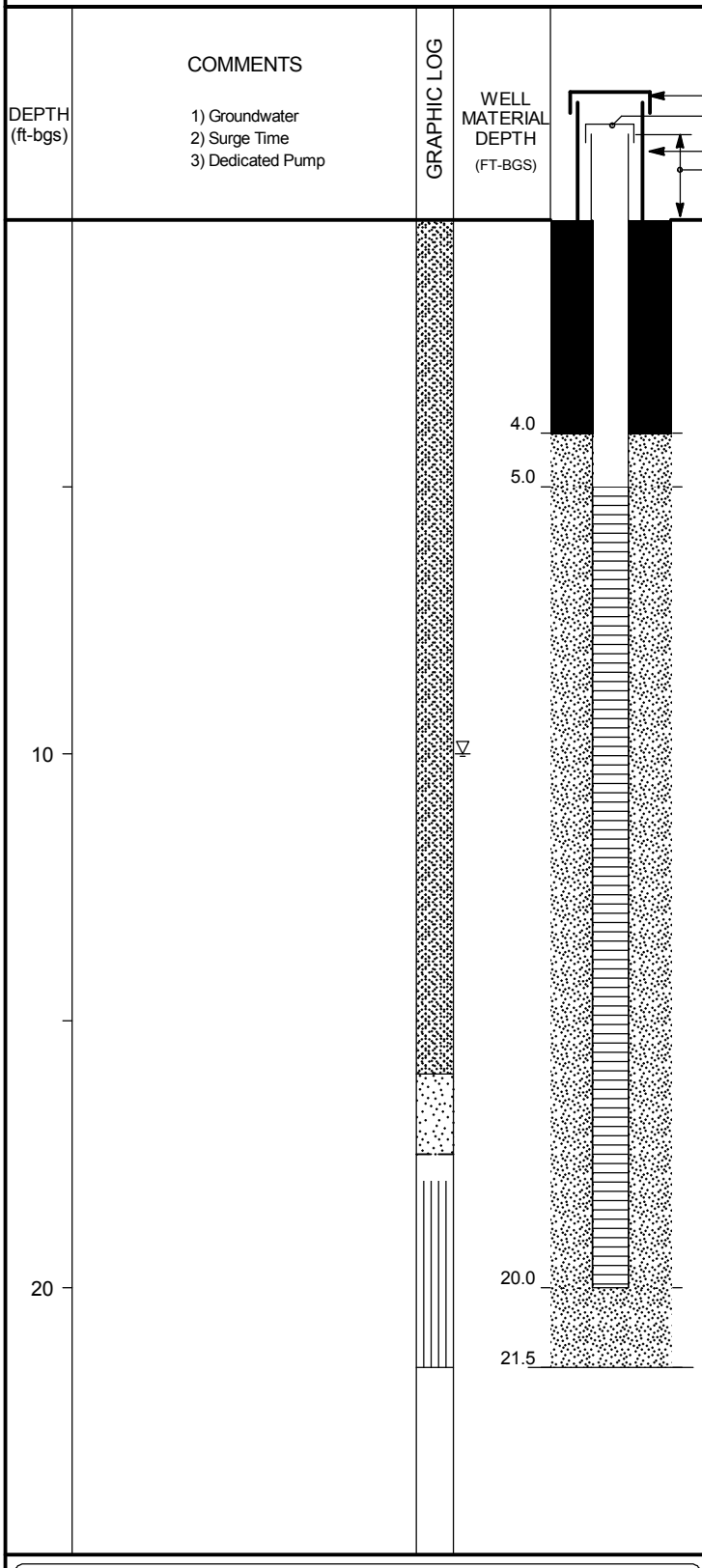
07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-08 **SHEET** 1 OF 1
START DRILL DATE Jun 24, 15 **ELEVATION DATA:**
FINISH DRILL DATE Jun 24, 15 **GROUND SURF.**
LOCATION Olancha, CA **TOP OF CASING** 3617.28
PROJECT CG Roxane Phase 2 **DATUM** NAD 1983
NUMBER SB0746



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.2 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 21.5 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/24/2015
WELL DEPTH 20 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 5 ft bgs
BOTTOM OF SCREEN 20 ft bgs
END CAP/SUMP LENGTH NA

GROUT

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

BENTONITE SEAL

TOP DEPTH 0 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 1.28 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME overnight
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 4 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018406.65
EASTING 408559.09
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

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-09 **SHEET** 1 OF 1
START DRILL DATE Jun 24, 15
FINISH DRILL DATE Jun 24, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746
ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3620.04
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
1	Well graded SAND (SW); Brown (10YR 4/3); Dry; Fine to very coarse sand; trace Fine to coarse gravel (5,95,0); Nonplastic; Loose; NHCO/S										08:58	Hand auger to 5'
5	SAA except only fine gravel (5,95,0)					1			80	1.0	09:05	Breathing space PID reading = 0.0 ppm
10	SAA except only fine gravel (5,95,0) SAA except pockets of Well graded SAND with silt (SW) ; Black (10YR 2/1); (0,90,10)					2			70	0.9	09:10	Soil sample collected @ 10'
14				▽ Groundwater @ 14.3'								
15	SAA except an increase in fine gravel (5,95,0) and wet					3			100	0.8	09:35	
16	SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; Trace fine sand; (0,5,95); Low plasticity; Firm; Trace roots; NHCO/S											
17	Lean CLAY (CL); Dark greenish gray (GLEY 5GY 4/1); Wet; (0,0,100); Low plasticity; Firm; Trace roots; NHCO/S											
20	Well graded SAND (SW); Brown (10YR 4/3); Dry; Fine to very coarse sand; trace Fine to coarse gravel (5,95,0); Nonplastic; Loose; NHCO/S					4			95	1.5	09:58	Breathing space PID reading = 0.0 ppm
22	SILT (ML); Dark greenish gray (GLEY 5GY 4/1); Wet; (0,0,100); Soft; Low plasticity; NHCO/S											
24												TD = 24'

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018326.26000
EASTING 408617.57000
COORDINATE SYSTEM: NAD 1983; UTM Zone 11S

NOTES: SAA = Same As Above; NHCO/S = No Hydrocarbon odor or staining

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

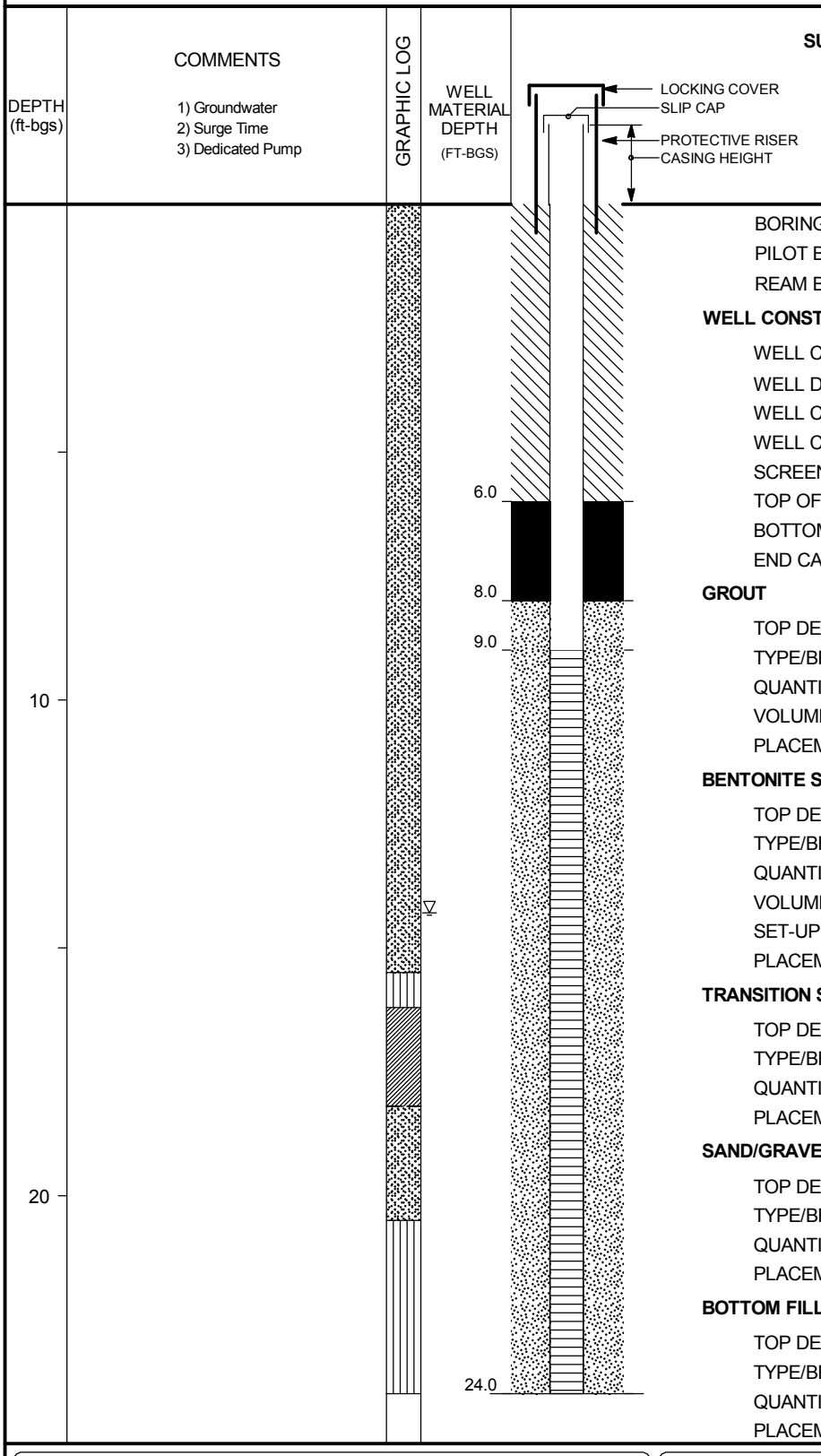
Geosyntec consultants
924 Anacapa St
Suite 4A
Santa Barbara, CA 93101
Tel: (805) 897-3800
Fax: (805) 899-8689

GS FORM: WELL COMP AG 01/04

WELL CONSTRUCTION LOG

BORING MW-09 **SHEET** 1 **OF** 1
START DRILL DATE Jun 24, 15
FINISH DRILL DATE Jun 24, 15
LOCATION Olancha, CA
PROJECT CG Roxane Phase 2
NUMBER SB0746

ELEVATION DATA:
GROUND SURF.
TOP OF CASING 3620.04
DATUM NAD 1983



SURFACE COMPLETION:

TYPE	Monument
RISER HEIGHT	3.5 ft
RISER DIAM.	8 in
WELL CASING HEIGHT	3.2 ft
CONCRETE PAD SIZE	4 x 4 x 0.3 ft

BORING DEPTH 24 ft bgs
PILOT BORING DIAMETER 8 in
REAM BORING DIAMETER NA

WELL CONSTRUCTION

WELL CONSTRUCTION DATE 6/24/2015
WELL DEPTH 24 ft bgs
WELL CASING DIAMETER 2 in
WELL CASING MATERIAL Sch 40 PVC
SCREEN SLOT SIZE/DIRECTION 0.020 inch
TOP OF SCREEN 9 ft bgs
BOTTOM OF SCREEN 24 ft bgs
END CAP/SUMP LENGTH NA

GROUT

TOP DEPTH 0 ft bgs
TYPE/BRAND Portland IV/WyoBen Grout
QUANTITY USED 1.61 cu. ft.
VOLUME FLUID USED ~10 gal
PLACEMENT METHOD pour

BENTONITE SEAL

TOP DEPTH 6 ft bgs
TYPE/BRAND Med. bentonite chips
QUANTITY USED 0.64 cu. ft.
VOLUME FLUID USED 10 gal
SET-UP TIME overnight
PLACEMENT METHOD pour

TRANSITION SAND

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

SAND/GRAVEL PACK

TOP DEPTH 8 ft bgs
TYPE/BRAND #2/12/Lapis Lustre
QUANTITY USED 5.14 cu. ft.
PLACEMENT METHOD Pour

BOTTOM FILL

TOP DEPTH NA
TYPE/BRAND
QUANTITY USED
PLACEMENT METHOD

CONTRACTOR Gregg Drilling
EQUIPMENT Rhino M5T
DRILL MTHD HSA
DIAMETER 8"
LOGGER K. Agustsson
REVIEWER R. Smith

NORTHING 4018326.26
EASTING 408617.57
COORDINATE SYSTEM:
NAD 1983; UTM Zone 11S

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

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

08-WELL_COMP_AG_CGR- PHASE 2 INVESTIGATION.GPJ GEOSNTEC.GDT 8/7/15

APPENDIX F

LABORATORY REPORTS

eurofins | Calscience

WORK ORDER NUMBER: 15-06-1886

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/07/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: CG Roxane
Work Order Number: 15-06-1886

eurofins | Calscience

Work Order Narrative

Work Order: 15-06-1886 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/15. They were assigned to Work Order 15-06-1886.

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:	15-06-1886
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	06/24/15 10:00
		Number of Containers:	15
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-01-15-062215	15-06-1886-1	06/22/15 14:35	5	Solid
MW-06-10-062315	15-06-1886-2	06/23/15 09:05	5	Solid
MW-07-05-062315	15-06-1886-3	06/23/15 11:34	5	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-1886
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/24/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-01-15-062215 (15-06-1886-1)						
Sulfate	14		10	mg/kg	EPA 300.0	N/A
Arsenic	53.8		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	49.1		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.379		0.248	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.62		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.19		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	14.7		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	4.01		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.23		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.86		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	50.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	48.7		0.990	mg/kg	EPA 6010B	EPA 3050B
pH	7.50		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	45		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	13100		100	mg/kg	SM 2540 C (M)	N/A
Total Kjeldahl Nitrogen	130		50	mg/kg	SM 4500 N Org B (M)	N/A
Ammonia (as N)	28		10	mg/kg	SM 4500-NH3 B/C (M)	N/A
Nitrate-Nitrite (as N)	1.0		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	130		0.50	mg/kg	Total Nitrogen by Calc	N/A
MW-06-10-062315 (15-06-1886-2)						
Chloride	15		10	mg/kg	EPA 300.0	N/A
Arsenic	1.54		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	15.1		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.26		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	0.871		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	2.07		0.476	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.977		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	3.32		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	7.93		0.952	mg/kg	EPA 6010B	EPA 3050B
pH	8.79		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	340		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	3420		10.0	mg/kg	SM 2540 C (M)	N/A
Total Kjeldahl Nitrogen	84		50	mg/kg	SM 4500 N Org B (M)	N/A
Phosphorus, Total	93		12	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	280		38	mg/kg	SM 4500 P B/E (M)	N/A
Ammonia (as N)	28		10	mg/kg	SM 4500-NH3 B/C (M)	N/A
Nitrate-Nitrite (as N)	2.6		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	87		0.50	mg/kg	Total Nitrogen by Calc	N/A

* MDL is shown

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-1886
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/24/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-07-05-062315 (15-06-1886-3)						
Arsenic	2.67		0.721	mg/kg	EPA 6010B	EPA 3050B
Barium	30.7		0.481	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.83		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.47		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	3.08		0.481	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.01		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	5.46		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	10.9		0.962	mg/kg	EPA 6010B	EPA 3050B
pH	8.99		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	730		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	5730		10.0	mg/kg	SM 2540 C (M)	N/A
Total Kjeldahl Nitrogen	70		50	mg/kg	SM 4500 N Org B (M)	N/A
Phosphorus, Total	94		25	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	290		75	mg/kg	SM 4500 P B/E (M)	N/A
Ammonia (as N)	39		10	mg/kg	SM 4500-NH3 B/C (M)	N/A
Nitrate-Nitrite (as N)	0.75		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	71		0.50	mg/kg	Total Nitrogen by Calc	N/A

Return to Contents

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: N/A
Method: EPA 300.0
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-15-062215	**15-06-1886-1-A**	**06/22/15 14:35**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 10:58**	**150626L03P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	14	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-10-062315	**15-06-1886-2-A**	**06/23/15 09:05**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 11:15**	**150626L03P**

Parameter	Result	RL	DF	Qualifiers
Chloride	15	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-05-062315	**15-06-1886-3-A**	**06/23/15 11:34**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 11:31**	**150626L03P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-922-608**	**N/A**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 10:26**	**150626L03P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	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

Date Received: 06/24/15
Work Order: 15-06-1886
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
MW-01-15-062215	**15-06-1886-1-A**	**06/22/15 14:35**	**Solid**	**ICP 7300**	**06/25/15**	**06/27/15 18:32**	**150625L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	53.8	0.743	0.990	
Barium	49.1	0.495	0.990	
Beryllium	0.379	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	1.62	0.248	0.990	
Cobalt	5.19	0.248	0.990	
Copper	14.7	0.495	0.990	
Lead	4.01	0.495	0.990	
Molybdenum	1.23	0.248	0.990	
Nickel	1.86	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	50.2	0.248	0.990	
Zinc	48.7	0.990	0.990	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: CG Roxane			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-10-062315	**15-06-1886-2-A**	**06/23/15 09:05**	**Solid**	**ICP 7300**	**06/25/15**	**06/27/15 18:43**	**150625L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	1.54	0.714	0.952	
Barium	15.1	0.476	0.952	
Beryllium	ND	0.238	0.952	
Cadmium	ND	0.476	0.952	
Chromium	1.26	0.238	0.952	
Cobalt	0.871	0.238	0.952	
Copper	2.07	0.476	0.952	
Lead	ND	0.476	0.952	
Molybdenum	ND	0.238	0.952	
Nickel	0.977	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	3.32	0.238	0.952	
Zinc	7.93	0.952	0.952	

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

Date Received: 06/24/15
Work Order: 15-06-1886
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
MW-07-05-062315	**15-06-1886-3-A**	**06/23/15 11:34**	**Solid**	**ICP 7300**	**06/25/15**	**06/27/15 18:45**	**150625L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	2.67	0.721	0.962	
Barium	30.7	0.481	0.962	
Beryllium	ND	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	1.83	0.240	0.962	
Cobalt	1.47	0.240	0.962	
Copper	3.08	0.481	0.962	
Lead	ND	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	2.01	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	5.46	0.240	0.962	
Zinc	10.9	0.962	0.962	

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

Date Received: 06/24/15
Work Order: 15-06-1886
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	**097-01-002-21320**	**N/A**	**Solid**	**ICP 7300**	**06/25/15**	**06/26/15 14:49**	**150625L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.754	1.01	
Arsenic	ND	0.754	1.01	
Barium	ND	0.503	1.01	
Beryllium	ND	0.251	1.01	
Cadmium	ND	0.503	1.01	
Chromium	ND	0.251	1.01	
Cobalt	ND	0.251	1.01	
Copper	ND	0.503	1.01	
Lead	ND	0.503	1.01	
Molybdenum	ND	0.251	1.01	
Nickel	ND	0.251	1.01	
Selenium	ND	0.754	1.01	
Silver	ND	0.251	1.01	
Thallium	ND	0.754	1.01	
Vanadium	ND	0.251	1.01	
Zinc	ND	1.01	1.01	

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

Date Received: 06/24/15
Work Order: 15-06-1886
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
MW-01-15-062215	**15-06-1886-1-A**	**06/22/15 14:35**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 17:25**	**150626L04A**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0806	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-10-062315	**15-06-1886-2-A**	**06/23/15 09:05**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 17:27**	**150626L04A**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-05-062315	**15-06-1886-3-A**	**06/23/15 11:34**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 17:29**	**150626L04A**

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
Method Blank	**099-16-272-1399**	**N/A**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 16:21**	**150626L04A**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	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

Date Received: 06/24/15
Work Order: 15-06-1886
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
MW-01-15-062215	**15-06-1886-1-A**	**06/22/15 14:35**	**Solid**	**GC/MS CCC**	**06/25/15**	**06/26/15 16:19**	**150625L05A**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/24/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1886
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 3 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	67	25-120	
Nitrobenzene-d5	64	33-123	
p-Terphenyl-d14	74	27-159	
Phenol-d6	68	26-122	
2,4,6-Tribromophenol	66	18-138	

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

Date Received: 06/24/15
Work Order: 15-06-1886
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
MW-06-10-062315	**15-06-1886-2-A**	**06/23/15 09:05**	**Solid**	**GC/MS CCC**	**06/25/15**	**06/26/15 16:37**	**150625L05A**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	75	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/24/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1886
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 6 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	78	25-120	
Nitrobenzene-d5	73	33-123	
p-Terphenyl-d14	82	27-159	
Phenol-d6	78	26-122	
2,4,6-Tribromophenol	88	18-138	

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

Date Received: 06/24/15
Work Order: 15-06-1886
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
MW-07-05-062315	**15-06-1886-3-A**	**06/23/15 11:34**	**Solid**	**GC/MS CCC**	**06/25/15**	**06/26/15 16:55**	**150625L05A**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/24/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1886
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 9 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	71	25-120	
Nitrobenzene-d5	68	33-123	
p-Terphenyl-d14	82	27-159	
Phenol-d6	73	26-122	
2,4,6-Tribromophenol	89	18-138	

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

Date Received: 06/24/15
Work Order: 15-06-1886
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
Method Blank	**099-12-549-3322**	**N/A**	**Solid**	**GC/MS CCC**	**06/25/15**	**06/26/15 13:37**	**150625L05A**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/24/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1886
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 12 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	78	25-120	
Nitrobenzene-d5	72	33-123	
p-Terphenyl-d14	79	27-159	
Phenol-d6	78	26-122	
2,4,6-Tribromophenol	80	18-138	

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

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
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
MW-01-15-062215	**15-06-1886-1-D**	**06/22/15 14:35**	**Solid**	**GC/MS BB**	**06/22/15**	**06/25/15 14:29**	**150625L007**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	40	1.00	
Benzene	ND	0.79	1.00	
Bromobenzene	ND	0.79	1.00	
Bromochloromethane	ND	1.6	1.00	
Bromodichloromethane	ND	0.79	1.00	
Bromoform	ND	4.0	1.00	
Bromomethane	ND	16	1.00	
2-Butanone	ND	16	1.00	
n-Butylbenzene	ND	0.79	1.00	
sec-Butylbenzene	ND	0.79	1.00	
tert-Butylbenzene	ND	0.79	1.00	
Carbon Disulfide	ND	7.9	1.00	
Carbon Tetrachloride	ND	0.79	1.00	
Chlorobenzene	ND	0.79	1.00	
Chloroethane	ND	1.6	1.00	
Chloroform	ND	0.79	1.00	
Chloromethane	ND	16	1.00	
2-Chlorotoluene	ND	0.79	1.00	
4-Chlorotoluene	ND	0.79	1.00	
Dibromochloromethane	ND	1.6	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.00	
1,2-Dibromoethane	ND	0.79	1.00	
Dibromomethane	ND	0.79	1.00	
1,2-Dichlorobenzene	ND	0.79	1.00	
1,3-Dichlorobenzene	ND	0.79	1.00	
1,4-Dichlorobenzene	ND	0.79	1.00	
Dichlorodifluoromethane	ND	1.6	1.00	
1,1-Dichloroethane	ND	0.79	1.00	
1,2-Dichloroethane	ND	0.79	1.00	
1,1-Dichloroethene	ND	0.79	1.00	
c-1,2-Dichloroethene	ND	0.79	1.00	
t-1,2-Dichloroethene	ND	0.79	1.00	
1,2-Dichloropropane	ND	0.79	1.00	
1,3-Dichloropropane	ND	0.79	1.00	
2,2-Dichloropropane	ND	4.0	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: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.6	1.00	
c-1,3-Dichloropropene	ND	0.79	1.00	
t-1,3-Dichloropropene	ND	1.6	1.00	
Ethylbenzene	ND	0.79	1.00	
2-Hexanone	ND	16	1.00	
Isopropylbenzene	ND	0.79	1.00	
p-Isopropyltoluene	ND	0.79	1.00	
Methylene Chloride	ND	7.9	1.00	
4-Methyl-2-Pentanone	ND	16	1.00	
Naphthalene	ND	7.9	1.00	
n-Propylbenzene	ND	1.6	1.00	
Styrene	ND	0.79	1.00	
1,1,1,2-Tetrachloroethane	ND	0.79	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	1.00	
Tetrachloroethene	ND	0.79	1.00	
Toluene	ND	0.79	1.00	
1,2,3-Trichlorobenzene	ND	1.6	1.00	
1,2,4-Trichlorobenzene	ND	1.6	1.00	
1,1,1-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloroethane	ND	0.79	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	1.00	
Trichloroethene	ND	1.6	1.00	
Trichlorofluoromethane	ND	7.9	1.00	
1,2,3-Trichloropropane	ND	1.6	1.00	
1,2,4-Trimethylbenzene	ND	1.6	1.00	
1,3,5-Trimethylbenzene	ND	1.6	1.00	
Vinyl Acetate	ND	7.9	1.00	
Vinyl Chloride	ND	0.79	1.00	
p/m-Xylene	ND	1.6	1.00	
o-Xylene	ND	0.79	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	77-120	
Dibromofluoromethane	102	80-123	
1,2-Dichloroethane-d4	107	79-139	
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

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
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
MW-06-10-062315	**15-06-1886-2-D**	**06/23/15 09:05**	**Solid**	**GC/MS BB**	**06/23/15**	**06/25/15 14:58**	**150625L007**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	55	1.00	
Benzene	ND	1.1	1.00	
Bromobenzene	ND	1.1	1.00	
Bromochloromethane	ND	2.2	1.00	
Bromodichloromethane	ND	1.1	1.00	
Bromoform	ND	5.5	1.00	
Bromomethane	ND	22	1.00	
2-Butanone	ND	22	1.00	
n-Butylbenzene	ND	1.1	1.00	
sec-Butylbenzene	ND	1.1	1.00	
tert-Butylbenzene	ND	1.1	1.00	
Carbon Disulfide	ND	11	1.00	
Carbon Tetrachloride	ND	1.1	1.00	
Chlorobenzene	ND	1.1	1.00	
Chloroethane	ND	2.2	1.00	
Chloroform	ND	1.1	1.00	
Chloromethane	ND	22	1.00	
2-Chlorotoluene	ND	1.1	1.00	
4-Chlorotoluene	ND	1.1	1.00	
Dibromochloromethane	ND	2.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.5	1.00	
1,2-Dibromoethane	ND	1.1	1.00	
Dibromomethane	ND	1.1	1.00	
1,2-Dichlorobenzene	ND	1.1	1.00	
1,3-Dichlorobenzene	ND	1.1	1.00	
1,4-Dichlorobenzene	ND	1.1	1.00	
Dichlorodifluoromethane	ND	2.2	1.00	
1,1-Dichloroethane	ND	1.1	1.00	
1,2-Dichloroethane	ND	1.1	1.00	
1,1-Dichloroethene	ND	1.1	1.00	
c-1,2-Dichloroethene	ND	1.1	1.00	
t-1,2-Dichloroethene	ND	1.1	1.00	
1,2-Dichloropropane	ND	1.1	1.00	
1,3-Dichloropropane	ND	1.1	1.00	
2,2-Dichloropropane	ND	5.5	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/24/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1886
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 4 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.2	1.00	
c-1,3-Dichloropropene	ND	1.1	1.00	
t-1,3-Dichloropropene	ND	2.2	1.00	
Ethylbenzene	ND	1.1	1.00	
2-Hexanone	ND	22	1.00	
Isopropylbenzene	ND	1.1	1.00	
p-Isopropyltoluene	ND	1.1	1.00	
Methylene Chloride	ND	11	1.00	
4-Methyl-2-Pentanone	ND	22	1.00	
Naphthalene	ND	11	1.00	
n-Propylbenzene	ND	2.2	1.00	
Styrene	ND	1.1	1.00	
1,1,1,2-Tetrachloroethane	ND	1.1	1.00	
1,1,2,2-Tetrachloroethane	ND	2.2	1.00	
Tetrachloroethene	ND	1.1	1.00	
Toluene	ND	1.1	1.00	
1,2,3-Trichlorobenzene	ND	2.2	1.00	
1,2,4-Trichlorobenzene	ND	2.2	1.00	
1,1,1-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
Trichloroethene	ND	2.2	1.00	
Trichlorofluoromethane	ND	11	1.00	
1,2,3-Trichloropropane	ND	2.2	1.00	
1,2,4-Trimethylbenzene	ND	2.2	1.00	
1,3,5-Trimethylbenzene	ND	2.2	1.00	
Vinyl Acetate	ND	11	1.00	
Vinyl Chloride	ND	1.1	1.00	
p/m-Xylene	ND	2.2	1.00	
o-Xylene	ND	1.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	77-120	
Dibromofluoromethane	100	80-123	
1,2-Dichloroethane-d4	109	79-139	
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

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
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
MW-07-05-062315	**15-06-1886-3-D**	**06/23/15 11:34**	**Solid**	**GC/MS BB**	**06/23/15**	**06/25/15 15:26**	**150625L007**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	47	1.00	
Benzene	ND	0.93	1.00	
Bromobenzene	ND	0.93	1.00	
Bromochloromethane	ND	1.9	1.00	
Bromodichloromethane	ND	0.93	1.00	
Bromoform	ND	4.7	1.00	
Bromomethane	ND	19	1.00	
2-Butanone	ND	19	1.00	
n-Butylbenzene	ND	0.93	1.00	
sec-Butylbenzene	ND	0.93	1.00	
tert-Butylbenzene	ND	0.93	1.00	
Carbon Disulfide	ND	9.3	1.00	
Carbon Tetrachloride	ND	0.93	1.00	
Chlorobenzene	ND	0.93	1.00	
Chloroethane	ND	1.9	1.00	
Chloroform	ND	0.93	1.00	
Chloromethane	ND	19	1.00	
2-Chlorotoluene	ND	0.93	1.00	
4-Chlorotoluene	ND	0.93	1.00	
Dibromochloromethane	ND	1.9	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.00	
1,2-Dibromoethane	ND	0.93	1.00	
Dibromomethane	ND	0.93	1.00	
1,2-Dichlorobenzene	ND	0.93	1.00	
1,3-Dichlorobenzene	ND	0.93	1.00	
1,4-Dichlorobenzene	ND	0.93	1.00	
Dichlorodifluoromethane	ND	1.9	1.00	
1,1-Dichloroethane	ND	0.93	1.00	
1,2-Dichloroethane	ND	0.93	1.00	
1,1-Dichloroethene	ND	0.93	1.00	
c-1,2-Dichloroethene	ND	0.93	1.00	
t-1,2-Dichloroethene	ND	0.93	1.00	
1,2-Dichloropropane	ND	0.93	1.00	
1,3-Dichloropropane	ND	0.93	1.00	
2,2-Dichloropropane	ND	4.7	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

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.9	1.00	
c-1,3-Dichloropropene	ND	0.93	1.00	
t-1,3-Dichloropropene	ND	1.9	1.00	
Ethylbenzene	ND	0.93	1.00	
2-Hexanone	ND	19	1.00	
Isopropylbenzene	ND	0.93	1.00	
p-Isopropyltoluene	ND	0.93	1.00	
Methylene Chloride	ND	9.3	1.00	
4-Methyl-2-Pentanone	ND	19	1.00	
Naphthalene	ND	9.3	1.00	
n-Propylbenzene	ND	1.9	1.00	
Styrene	ND	0.93	1.00	
1,1,1,2-Tetrachloroethane	ND	0.93	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	1.00	
Tetrachloroethene	ND	0.93	1.00	
Toluene	ND	0.93	1.00	
1,2,3-Trichlorobenzene	ND	1.9	1.00	
1,2,4-Trichlorobenzene	ND	1.9	1.00	
1,1,1-Trichloroethane	ND	0.93	1.00	
1,1,2-Trichloroethane	ND	0.93	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.3	1.00	
Trichloroethene	ND	1.9	1.00	
Trichlorofluoromethane	ND	9.3	1.00	
1,2,3-Trichloropropane	ND	1.9	1.00	
1,2,4-Trimethylbenzene	ND	1.9	1.00	
1,3,5-Trimethylbenzene	ND	1.9	1.00	
Vinyl Acetate	ND	9.3	1.00	
Vinyl Chloride	ND	0.93	1.00	
p/m-Xylene	ND	1.9	1.00	
o-Xylene	ND	0.93	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	77-120	
Dibromofluoromethane	105	80-123	
1,2-Dichloroethane-d4	113	79-139	
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

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
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	**099-14-312-491**	**N/A**	**Solid**	**GC/MS BB**	**06/25/15**	**06/25/15 13:32**	**150625L007**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	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	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	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	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	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	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/24/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1886
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 8 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	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	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	77-120	
Dibromofluoromethane	98	80-123	
1,2-Dichloroethane-d4	103	79-139	
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

Date Received: 06/24/15
Work Order: 15-06-1886

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-01-15-062215	**15-06-1886-1**	**06/22/15 14:35**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	7.50	0.01	1.00		pH units	06/24/15	06/24/15	EPA 9045D
Alkalinity, Total (as CaCO3)	45	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	13100	100	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	130	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	ND	0.50	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	ND	1.5	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	28	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	1.0	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	07/02/15	07/02/15	SM 5540C (M)
Total Nitrogen	130	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

MW-06-10-062315	**15-06-1886-2**	**06/23/15 09:05**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.79	0.01	1.00		pH units	06/24/15	06/24/15	EPA 9045D
Alkalinity, Total (as CaCO3)	340	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	3420	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	84	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	93	12	25.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	280	38	25.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	28	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	2.6	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	07/02/15	07/02/15	SM 5540C (M)
Total Nitrogen	87	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

MW-07-05-062315	**15-06-1886-3**	**06/23/15 11:34**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.99	0.01	1.00		pH units	06/24/15	06/24/15	EPA 9045D
Alkalinity, Total (as CaCO3)	730	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	5730	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	70	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	94	25	50.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	290	75	50.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	39	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.75	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	07/02/15	07/02/15	SM 5540C (M)
Total Nitrogen	71	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

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: 06/24/15
Work Order: 15-06-1886

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
Method Blank		**N/A**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	ND	1.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	10	1.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	ND	0.50	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	ND	1.5	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	ND	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	07/02/15	07/02/15	SM 5540C (M)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1938-1	**Sample**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 11:48**	**150626S03P**
15-06-1938-1	**Matrix Spike**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 13:42**	**150626S03P**
15-06-1938-1	**Matrix Spike Duplicate**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 13:59**	**150626S03P**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	ND	500.0	391.2	78	418.4	84	80-120	7	0-20	3
Sulfate	2375	500.0	2697	64	2890	103	80-120	7	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 2 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-07-05-062315	**Sample**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPS1**
MW-07-05-062315	**Matrix Spike**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPS1**
MW-07-05-062315	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	93.72	100.0	190.5	97	192.2	99	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:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 3 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-07-05-062315	**Sample**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4S1**
MW-07-05-062315	**Matrix Spike**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4S1**
MW-07-05-062315	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	286.8	305.0	582.5	97	587.5	99	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:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E (M)
Project: CG Roxane			Page 4 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-01-15-062215	**Sample**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3S1**
MW-01-15-062215	**Matrix Spike**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3S1**
MW-01-15-062215	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	1.018	2.500	3.535	101	3.595	103	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 5 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-07-05-062315	**Sample**	**Solid**	**UV 9**	**07/02/15**	**07/02/15 20:48**	**F0702SURS2**
MW-07-05-062315	**Matrix Spike**	**Solid**	**UV 9**	**07/02/15**	**07/02/15 20:48**	**F0702SURS2**
MW-07-05-062315	**Matrix Spike Duplicate**	**Solid**	**UV 9**	**07/02/15**	**07/02/15 20:48**	**F0702SURS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	10.00	8.700	87	8.900	89	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane			Page 6 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1926-1	**Sample**	**Solid**	**ICP 7300**	**06/25/15**	**06/26/15 14:57**	**150625S02**
15-06-1926-1	**Matrix Spike**	**Solid**	**ICP 7300**	**06/25/15**	**06/26/15 14:59**	**150625S02**
15-06-1926-1	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**06/25/15**	**06/26/15 15:02**	**150625S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	6.542	26	9.261	37	50-115	34	0-20	3,4
Arsenic	1.045	25.00	24.45	94	25.68	99	75-125	5	0-20	
Barium	366.6	25.00	426.9	4X	435.9	4X	75-125	4X	0-20	Q
Beryllium	ND	25.00	24.41	98	25.46	102	75-125	4	0-20	
Cadmium	0.6575	25.00	24.74	96	25.81	101	75-125	4	0-20	
Chromium	14.86	25.00	43.79	116	43.69	115	75-125	0	0-20	
Cobalt	13.29	25.00	37.52	97	38.68	102	75-125	3	0-20	
Copper	18.27	25.00	33.60	61	36.14	71	75-125	7	0-20	3
Lead	1.269	25.00	24.98	95	26.39	100	75-125	5	0-20	
Molybdenum	ND	25.00	21.49	86	22.90	92	75-125	6	0-20	
Nickel	5.778	25.00	30.35	98	31.67	104	75-125	4	0-20	
Selenium	ND	25.00	17.14	69	18.42	74	75-125	7	0-20	3
Silver	ND	12.50	12.28	98	12.82	103	75-125	4	0-20	
Thallium	ND	25.00	20.23	81	21.32	85	75-125	5	0-20	
Vanadium	37.00	25.00	66.45	118	68.86	127	75-125	4	0-20	3
Zinc	39.86	25.00	69.86	120	73.40	134	75-125	5	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane			Page 7 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1926-1	**Sample**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 16:35**	**150626S04**
15-06-1926-1	**Matrix Spike**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 16:37**	**150626S04**
15-06-1926-1	**Matrix Spike Duplicate**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 16:40**	**150626S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8085	97	0.8561	103	75-125	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane			Page 8 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1746-3	**Sample**	**Solid**	**GC/MS TT**	**06/25/15**	**06/26/15 15:45**	**150625S05**
15-06-1746-3	**Matrix Spike**	**Solid**	**GC/MS TT**	**06/25/15**	**06/26/15 16:04**	**150625S05**
15-06-1746-3	**Matrix Spike Duplicate**	**Solid**	**GC/MS TT**	**06/25/15**	**06/26/15 16:22**	**150625S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	6.364	64	6.154	62	34-148	3	0-20	
Acenaphthylene	ND	10.00	6.155	62	5.953	60	53-120	3	0-20	
Butyl Benzyl Phthalate	ND	10.00	6.700	67	6.199	62	15-189	8	0-20	
4-Chloro-3-Methylphenol	ND	10.00	6.569	66	6.178	62	32-120	6	0-20	
2-Chlorophenol	ND	10.00	6.345	63	6.307	63	53-120	1	0-20	
1,4-Dichlorobenzene	ND	10.00	5.373	54	5.095	51	43-120	5	0-26	
Dimethyl Phthalate	ND	10.00	6.269	63	6.092	61	44-122	3	0-20	
2,4-Dinitrotoluene	ND	10.00	6.591	66	6.320	63	28-120	4	0-20	
Fluorene	ND	10.00	6.511	65	6.248	62	12-186	4	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	6.430	64	6.244	62	38-140	3	0-20	
Naphthalene	ND	10.00	5.871	59	5.640	56	20-140	4	0-20	
4-Nitrophenol	ND	10.00	6.361	64	5.811	58	14-128	9	0-59	
Pentachlorophenol	ND	10.00	4.805	48	3.652	37	10-124	27	0-20	4
Phenol	ND	10.00	6.888	69	6.693	67	22-124	3	0-20	
Pyrene	ND	10.00	6.595	66	6.290	63	31-169	5	0-20	
1,2,4-Trichlorobenzene	ND	10.00	5.686	57	5.355	54	56-120	6	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - PDS

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
15-06-1926-1	**Sample**	**Solid**	**ICP 7300**	**06/25/15 00:00**	**06/26/15 14:57**	**150625S02**
15-06-1926-1	**PDS**	**Solid**	**ICP 7300**	**06/25/15 00:00**	**06/26/15 15:04**	**150625S02**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	25.00	24.20	97	75-125	
Arsenic	1.045	25.00	25.81	99	75-125	
Barium	366.6	25.00	405.7	4X	75-125	Q
Beryllium	ND	25.00	25.45	102	75-125	
Cadmium	0.6575	25.00	25.93	101	75-125	
Chromium	14.86	25.00	41.26	106	75-125	
Cobalt	13.29	25.00	38.41	100	75-125	
Copper	18.27	25.00	45.42	109	75-125	
Lead	1.269	25.00	25.77	98	75-125	
Molybdenum	ND	25.00	24.38	98	75-125	
Nickel	5.778	25.00	31.25	102	75-125	
Selenium	ND	25.00	21.01	84	75-125	
Silver	ND	12.50	12.57	101	75-125	
Thallium	ND	25.00	22.36	89	75-125	
Vanadium	37.00	25.00	63.72	107	75-125	
Zinc	39.86	25.00	66.46	106	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 9045D
Project: CG Roxane			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1896-1	**Sample**	**Solid**	**PH 4**	**06/24/15 00:00**	**06/24/15 20:55**	**F0624PHD1**
15-06-1896-1	**Sample Duplicate**	**Solid**	**PH 4**	**06/24/15 00:00**	**06/24/15 20:55**	**F0624PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	8.510	8.480	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B M
Project: CG Roxane			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-01-15-062215	**Sample**	**Solid**	**PH1/BUR03**	**06/30/15 00:00**	**06/30/15 17:18**	**F0630ALKD3**
MW-01-15-062215	**Sample Duplicate**	**Solid**	**PH1/BUR03**	**06/30/15 00:00**	**06/30/15 17:18**	**F0630ALKD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	45.00	45.00	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C (M)
Project: CG Roxane			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1885-1	**Sample**	**Solid**	**N/A**	**06/30/15 00:00**	**06/30/15 17:00**	**F0630TDSD1**
15-06-1885-1	**Sample Duplicate**	**Solid**	**N/A**	**06/30/15 00:00**	**06/30/15 17:00**	**F0630TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	19430	20900	7	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B (M)
Project: CG Roxane			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1883-1	**Sample**	**Solid**	**BUR05**	**06/30/15 00:00**	**06/30/15 14:03**	**F0630TKND1**
15-06-1883-1	**Sample Duplicate**	**Solid**	**BUR05**	**06/30/15 00:00**	**06/30/15 14:03**	**F0630TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	9800	9968	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-922-608	**LCS**	**Solid**	**IC 7**	**06/26/15**	**06/27/15 10:42**	**150626L03P**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	500.0	524.5	105	90-110	
Sulfate	500.0	514.6	103	90-110	

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: 06/24/15
Work Order: 15-06-1886
Preparation: N/A
Method: SM 4500 P B/E (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5438	**LCS**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPL1**
099-05-001-5438	**LCSD**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	2.000	2.125	106	2.100	105	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: 06/24/15
Work Order: 15-06-1886
Preparation: N/A
Method: SM 4500 P B/E (M)
Page 3 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-274-26	**LCS**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4L1**
099-14-274-26	**LCSD**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	6.100	6.500	107	6.400	105	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

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: N/A
Method: SM 4500-NH3 B/C (M)
Page 4 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-812-798	**LCS**	**Solid**	**BUR05**	**06/30/15**	**06/30/15 15:00**	**F0630NH3L2**
099-12-812-798	**LCSD**	**Solid**	**BUR05**	**06/30/15**	**06/30/15 15:00**	**F0630NH3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	250.0	221.2	88	226.8	91	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: 06/24/15
924 Anacapa Street, Suite 4A	Work Order: 15-06-1886
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NO3 E (M)
Project: CG Roxane	Page 5 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5437	**LCS**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3L1**
099-05-001-5437	**LCSD**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	2.500	2.490	100	2.510	100	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 6 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-027-41	**LCS**	**Solid**	**UV 9**	**07/02/15**	**07/02/15 20:48**	**F0702SURL2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	10.00	8.600	86	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane			Page 7 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21320	**LCS**	**Solid**	**ICP 7300**	**06/25/15**	**06/26/15 14:52**	**150625L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	22.02	88	80-120	73-127	
Arsenic	25.00	21.11	84	80-120	73-127	
Barium	25.00	22.54	90	80-120	73-127	
Beryllium	25.00	21.05	84	80-120	73-127	
Cadmium	25.00	22.37	89	80-120	73-127	
Chromium	25.00	21.65	87	80-120	73-127	
Cobalt	25.00	21.18	85	80-120	73-127	
Copper	25.00	22.63	91	80-120	73-127	
Lead	25.00	22.16	89	80-120	73-127	
Molybdenum	25.00	21.24	85	80-120	73-127	
Nickel	25.00	22.23	89	80-120	73-127	
Selenium	25.00	21.35	85	80-120	73-127	
Silver	12.50	11.61	93	80-120	73-127	
Thallium	25.00	20.86	83	80-120	73-127	
Vanadium	25.00	21.85	87	80-120	73-127	
Zinc	25.00	22.32	89	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:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane			Page 8 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-1399	**LCS**	**Solid**	**Mercury 05**	**06/26/15**	**06/26/15 16:24**	**150626L04A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8815	106	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane			Page 9 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-549-3322	**LCS**	**Solid**	**GC/MS CCC**	**06/25/15**	**06/26/15 13:19**	**150625L05A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acenaphthene	10.00	8.530	85	51-123	39-135	
Acenaphthylene	10.00	8.400	84	52-120	41-131	
Butyl Benzyl Phthalate	10.00	9.133	91	43-139	27-155	
4-Chloro-3-Methylphenol	10.00	8.735	87	55-121	44-132	
2-Chlorophenol	10.00	8.755	88	58-124	47-135	
1,4-Dichlorobenzene	10.00	7.649	76	42-132	27-147	
Dimethyl Phthalate	10.00	8.560	86	51-123	39-135	
2,4-Dinitrotoluene	10.00	9.407	94	51-129	38-142	
Fluorene	10.00	8.770	88	54-126	42-138	
N-Nitroso-di-n-propylamine	10.00	8.095	81	40-136	24-152	
Naphthalene	10.00	8.211	82	32-146	13-165	
4-Nitrophenol	10.00	7.464	75	24-126	7-143	
Pentachlorophenol	10.00	6.433	64	23-131	5-149	
Phenol	10.00	8.576	86	40-130	25-145	
Pyrene	10.00	8.231	82	47-143	31-159	
1,2,4-Trichlorobenzene	10.00	8.121	81	45-129	31-143	

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/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/24/15
Work Order: 15-06-1886
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-491	**LCS**	**Solid**	**GC/MS BB**	**06/25/15**	**06/25/15 11:01**	**150625L007**
099-14-312-491	**LCSD**	**Solid**	**GC/MS BB**	**06/25/15**	**06/25/15 11:30**	**150625L007**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	54.35	109	50.63	101	30-150	10-170	7	0-20	
Benzene	50.00	44.06	88	45.14	90	79-120	72-127	2	0-20	
Bromobenzene	50.00	44.05	88	44.90	90	80-120	73-127	2	0-20	
Bromochloromethane	50.00	44.18	88	45.57	91	80-120	73-127	3	0-20	
Bromodichloromethane	50.00	45.16	90	46.41	93	73-127	64-136	3	0-20	
Bromoform	50.00	45.39	91	44.70	89	55-133	42-146	2	0-20	
Bromomethane	50.00	40.19	80	45.11	90	36-144	18-162	12	0-20	
2-Butanone	50.00	52.69	105	49.13	98	56-176	36-196	7	0-20	
n-Butylbenzene	50.00	44.84	90	46.78	94	78-126	70-134	4	0-20	
sec-Butylbenzene	50.00	44.34	89	45.71	91	79-127	71-135	3	0-20	
tert-Butylbenzene	50.00	44.73	89	45.52	91	80-128	72-136	2	0-20	
Carbon Disulfide	50.00	37.04	74	38.36	77	53-125	41-137	3	0-20	
Carbon Tetrachloride	50.00	39.33	79	41.10	82	58-142	44-156	4	0-20	
Chlorobenzene	50.00	43.86	88	44.90	90	80-120	73-127	2	0-20	
Chloroethane	50.00	47.49	95	50.78	102	60-120	50-130	7	0-20	
Chloroform	50.00	45.76	92	47.36	95	80-120	73-127	3	0-20	
Chloromethane	50.00	45.01	90	46.35	93	50-122	38-134	3	0-20	
2-Chlorotoluene	50.00	43.06	86	44.87	90	80-125	72-132	4	0-20	
4-Chlorotoluene	50.00	46.20	92	47.58	95	80-120	73-127	3	0-20	
Dibromochloromethane	50.00	44.13	88	45.09	90	70-130	60-140	2	0-20	
1,2-Dibromo-3-Chloropropane	50.00	49.01	98	46.58	93	54-132	41-145	5	0-20	
1,2-Dibromoethane	50.00	46.16	92	46.55	93	80-120	73-127	1	0-20	
Dibromomethane	50.00	46.09	92	47.33	95	80-122	73-129	3	0-20	
1,2-Dichlorobenzene	50.00	44.33	89	45.67	91	80-120	73-127	3	0-20	
1,3-Dichlorobenzene	50.00	44.26	89	45.71	91	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	50.00	42.96	86	44.39	89	80-120	73-127	3	0-20	
Dichlorodifluoromethane	50.00	52.34	105	56.25	113	32-158	11-179	7	0-20	
1,1-Dichloroethane	50.00	45.01	90	46.73	93	74-120	66-128	4	0-20	
1,2-Dichloroethane	50.00	45.27	91	46.70	93	79-121	72-128	3	0-20	
1,1-Dichloroethene	50.00	41.66	83	43.10	86	71-125	62-134	3	0-20	
c-1,2-Dichloroethene	50.00	44.21	88	45.87	92	80-123	73-130	4	0-20	
t-1,2-Dichloroethene	50.00	42.57	85	43.96	88	80-120	73-127	3	0-20	
1,2-Dichloropropane	50.00	44.70	89	45.25	91	77-120	70-127	1	0-20	
1,3-Dichloropropane	50.00	45.43	91	46.61	93	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	45.24	90	46.43	93	58-142	44-156	3	0-20	
1,1-Dichloropropene	50.00	42.67	85	42.88	86	69-120	60-128	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	06/24/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1886
Santa Barbara, CA 93101-2177		Preparation:	EPA 5035
		Method:	EPA 8260B
Project: CG Roxane			Page 11 of 11

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	47.87	96	48.41	97	74-128	65-137	1	0-20	
t-1,3-Dichloropropene	50.00	50.03	100	50.88	102	66-120	57-129	2	0-20	
Ethylbenzene	50.00	44.67	89	45.96	92	80-120	73-127	3	0-20	
2-Hexanone	50.00	47.77	96	47.27	95	67-151	53-165	1	0-20	
Isopropylbenzene	50.00	45.06	90	46.63	93	80-129	72-137	3	0-20	
p-Isopropyltoluene	50.00	44.11	88	45.86	92	80-122	73-129	4	0-20	
Methylene Chloride	50.00	45.56	91	47.02	94	72-120	64-128	3	0-20	
4-Methyl-2-Pentanone	50.00	48.89	98	48.45	97	72-126	63-135	1	0-20	
Naphthalene	50.00	48.10	96	49.00	98	64-124	54-134	2	0-20	
n-Propylbenzene	50.00	46.73	93	48.76	98	80-122	73-129	4	0-20	
Styrene	50.00	44.99	90	46.37	93	80-123	73-130	3	0-20	
1,1,1,2-Tetrachloroethane	50.00	44.01	88	45.06	90	73-133	63-143	2	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.98	98	48.50	97	77-120	70-127	1	0-20	
Tetrachloroethene	50.00	41.60	83	43.65	87	75-123	67-131	5	0-20	
Toluene	50.00	43.46	87	44.89	90	80-120	73-127	3	0-20	
1,2,3-Trichlorobenzene	50.00	45.65	91	48.08	96	73-127	64-136	5	0-20	
1,2,4-Trichlorobenzene	50.00	45.85	92	48.55	97	74-128	65-137	6	0-20	
1,1,1-Trichloroethane	50.00	43.55	87	45.08	90	71-131	61-141	3	0-20	
1,1,2-Trichloroethane	50.00	47.16	94	47.82	96	80-120	73-127	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	44.59	89	44.47	89	77-125	69-133	0	0-20	
Trichloroethene	50.00	43.93	88	45.35	91	80-120	73-127	3	0-20	
Trichlorofluoromethane	50.00	46.13	92	48.81	98	70-136	59-147	6	0-20	
1,2,3-Trichloropropane	50.00	47.48	95	47.05	94	60-120	50-130	1	0-20	
1,2,4-Trimethylbenzene	50.00	44.35	89	45.74	91	75-123	67-131	3	0-20	
1,3,5-Trimethylbenzene	50.00	44.78	90	47.08	94	80-123	73-130	5	0-20	
Vinyl Acetate	50.00	47.34	95	45.43	91	51-159	33-177	4	0-20	
Vinyl Chloride	50.00	50.51	101	54.09	108	68-120	59-129	7	0-20	
p/m-Xylene	100.0	91.77	92	94.85	95	80-122	73-129	3	0-20	
o-Xylene	50.00	44.20	88	45.77	92	79-127	71-135	3	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	44.92	90	45.32	91	64-124	54-134	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

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-06-1886 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	834	IC 7	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8260B	EPA 5035	486	GC/MS BB	2
EPA 8270C	EPA 3545	923	GC/MS CCC	1
EPA 9045D	N/A	688	PH 4	1
SM 2320B M	N/A	688	PH1/BUR03	1
SM 2540 C (M)	N/A	1009	N/A	1
SM 4500 N Org B (M)	N/A	685	BUR05	1
SM 4500 P B/E (M)	N/A	857	UV 7	1
SM 4500-NH3 B/C (M)	N/A	685	BUR05	1
SM 4500-NO3 E (M)	N/A	857	UV 7	1
SM 5540C (M)	N/A	990	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-06-1886 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

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

DATE: 6/23/15
PAGE: 1 OF 1

WO NO. / LAB USE ONLY
15-06-1886

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 924 Anacapa St ste 4A
CITY: Santa Barbara STATE: CA ZIP: 93101
TEL: 805-897-3800 E-MAIL: RSmith@geosyntec.com

CLIENT PROJECT NAME / NO.: CG Roxane
PROJECT CONTACT: Ryan Smith
GLOBAL ID:
LOG CODE:

P.O. NO.: ~~SB0721~~
LAB CONTACT OR QUOTE NO.: Steve Nowak
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

EDD: ☐ COELT EDF ☒ OTHER Geosyntec specific EDD

SPECIAL INSTRUCTIONS:
1 cooler w/ this COC

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(g) ☐ GRO Total/Fecal Coliform	☐ TPH(d) ☐ DRO MBAS	TPH ☐ C6-C36 ☐ C6-C44 Anions/Cations in Total Phosphate and Phosphate	TPH	BTEX / MTBE ☐ 8260 ☐ _____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X CAM17	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Total N, Nitrate, Nitrite, NH4, TKN	pH		
1	MW-01-15-0622~~15~~	6/22/15	1435	S	5	2	3		X	X	X	X		X			X				X		X	X		
2	MW-06-10-0623~~15~~	6/23/15	09:05	S	5	2	3		X	X	X	X		X			X				X		X	X		
3	MW-07-05-0623~~15~~	6/23/15	11:34	S	5	2	3		X	X	X	X		X			X				X		X	X		

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 6/24/15	Time: 1000

6/23/15

2014-07-01 Revision

Return to Contents

1876

FedEx Express Package US Airbill

FedEx Tracking Number 8082 3541 7157

Form ID No. 0215

SLA2

Recipient's Copy

1 From

Date 6/23/15 [redacted]

Sender's Name Kenjo Agustsson Phone 805 897-3800 ~~760 764 3895~~

Company ~~G O ROXANE CO~~ Geosyntec Consultants

Address ~~1210 S HWY 395~~ 924 Anacapa St. Suite 4A Dept./Floor/Suite/Room

City ~~OLANCHA~~ Santa Barbara State CA ZIP ~~93549~~ 93101

2 Your Internal Billing Reference

3 To

Recipient's Name Steve Nakata Phone 714 895-5494

Company Evotus Calscience, Inc.

Address 7440 Lincoln Way Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

☐ 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

0119990067

8082 3541 7157

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 cooler

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

[redacted]

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.

611

Rev. Date 2/12 • Part #163134 • ©1994–2012 FedEx • PRINTED IN U.S.A. SRM

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06- 1886

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 06 / 24 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.3°C); Temperature (w/o CF): 3.8 °C (w/ CF): 3.5 °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: 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: SM

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® (3) ☐ _____

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: SM

Reviewed by: 965

Return to Contents

eurofins | Calscience

Subcontractor Analysis Report

Work Order: 15-06-1886 Page 1 of 1

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Truesdail Laboratories, Inc. - Tustin,CA CA ELAP 1237
   Microbiology

Return to Contents

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING
Established 1931
3337 MICHELSON DRIVE, SUITE CN 750
IRVINE, CA 92612
(714) 730-6239 • FAX (714) 730-6462
www.truesdail.com

REPORT

Client: **Eurofins/Calscience**
7440 Lincoln Way
Garden Grove, CA 92841-1432
Attention: Stephen Nowalk
Project Name: Total Coliform
Project Number: 15-06-1886

Work Order No.: 15F0437
Printed: 07/02/2015

CASE NARRATIVE

SAMPLE RECEIPT SUMMARY

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
MW-01-15-062215	15F0437-01	Soil		06/22/2015 14:35	06/25/2015 11:40
MW-06-10-062315	15F0437-02	Soil		06/23/2015 09:05	06/25/2015 11:40
MW-07-05-062315	15F0437-03	Soil		06/23/2015 11:34	06/25/2015 11:40

DEFINITIONS

Symbol	Definition
DF	Dilution Factor
MDL	Method Detection Limit
ND	Not Detected
RL	Reporting Limit

Respectfully yours,

Jeff Lee
Project Manager

Return to Contents

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

TRUESDAIL LABORATORIES, INC.

Client: Eurofins/Calscience

Project Name: Total Coliform
Project Number: 15-06-1886
Printed: 07/02/2015

MW-01-15-062215
15F0437-01 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1506498	06/28/2015 11:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1506498	06/28/2015 11:00	PA	SM 9221 B	

MW-06-10-062315
15F0437-02 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1506498	06/28/2015 11:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1506498	06/28/2015 11:00	PA	SM 9221 B	

MW-07-05-062315
15F0437-03 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1506498	06/28/2015 11:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1506498	06/28/2015 11:00	PA	SM 9221 B	

Return to Contents

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

eurofins | Calscience
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: Truesdail
Irvine

15F0437

CHAIN OF CUSTODY RECORD

DATE: 06/25/15
PAGE: 1 OF 1

LABORATORY CLIENT: Eurofins Calscience, Inc.
ADDRESS: 7440 Lincoln Way
CITY: Garden Grove, CA 92841
TEL: 714-895-5494
E-MAIL: StephenNowak@eurofinsUS.com

CLIENT PROJECT NAME / NUMBER: 15-06-1886
PROJECT CONTACT: Stephen Nowak
SAMPLER(S): (PRINT)

P.O. NO.:
QUOTE NO.:
LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ RCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Please use 6 dilutions

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Total & Fecal Coliforms
	MW-01-15-062215	06/22/15	14:35	S	1	X
	MW-06-10-062315	06/23/15	09:05	S	1	X
	MW-07-05-062315	06/23/15	11:34	S	1	X

6.7°C

Relinquished by: (Signature) (CALSCIENCE)	Received by / Affiliation: (Signature) TLI	Date: 6/25/15	Time: 11:40
Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06-1979

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/08/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: CG Roxane
Work Order Number: 15-06-1979

eurofins | Calscience

Work Order Narrative

Work Order: 15-06-1979 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/25/15. They were assigned to Work Order 15-06-1979.

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:	15-06-1979
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	06/25/15 09:45
		Number of Containers:	20
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-05-05-062315	15-06-1979-1	06/23/15 13:55	5	Solid
MW-03-05-062315	15-06-1979-2	06/23/15 16:05	5	Solid
MW-08-05-062415	15-06-1979-3	06/24/15 07:40	5	Solid
MW-09-10-062415	15-06-1979-4	06/24/15 09:10	5	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-1979
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/25/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-05-05-062315 (15-06-1979-1)						
Sulfate	61		10	mg/kg	EPA 300.0	N/A
Arsenic	2.23		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	11.3		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.613		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	0.678		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	1.53		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.380		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	2.78		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	6.92		1.02	mg/kg	EPA 6010B	EPA 3050B
pH	9.16		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	560		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	3180		10.0	mg/kg	SM 2540 C (M)	N/A
Total Kjeldahl Nitrogen	70		50	mg/kg	SM 4500 N Org B (M)	N/A
Phosphorus, Total	93		12	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	280		38	mg/kg	SM 4500 P B/E (M)	N/A
Nitrate-Nitrite (as N)	0.92		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	71		0.50	mg/kg	Total Nitrogen by Calc	N/A
MW-03-05-062315 (15-06-1979-2)						
Arsenic	3.33		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	31.2		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.35		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.68		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	2.92		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	0.801		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.52		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	5.32		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	10.6		1.02	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.169		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
pH	9.24		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	460		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	6710		10.0	mg/kg	SM 2540 C (M)	N/A
Phosphorus, Total	0.78		0.50	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	2.4		1.5	mg/kg	SM 4500 P B/E (M)	N/A
Nitrate-Nitrite (as N)	0.70		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	0.70		0.50	mg/kg	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-1979
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/25/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-08-05-062415 (15-06-1979-3)						
Arsenic	2.54		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	18.5		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.25		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.02		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	3.30		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	0.552		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.997		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	3.70		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	10.1		1.02	mg/kg	EPA 6010B	EPA 3050B
pH	8.77		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	230		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	2060		10.0	mg/kg	SM 2540 C (M)	N/A
Phosphorus, Total	110		25	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	320		75	mg/kg	SM 4500 P B/E (M)	N/A
Nitrate-Nitrite (as N)	0.79		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	0.79		0.50	mg/kg	Total Nitrogen by Calc	N/A
MW-09-10-062415 (15-06-1979-4)						
Sulfate	27		10	mg/kg	EPA 300.0	N/A
Barium	6.82		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.778		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	0.422		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	1.06		0.515	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.431		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	2.62		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	3.36		1.03	mg/kg	EPA 6010B	EPA 3050B
pH	8.21		0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	160		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	4370		10.0	mg/kg	SM 2540 C (M)	N/A
Phosphorus, Total	37		5.0	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	110		15	mg/kg	SM 4500 P B/E (M)	N/A
Nitrate-Nitrite (as N)	0.58		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	0.58		0.50	mg/kg	Total Nitrogen by Calc	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: N/A
Method: EPA 300.0
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-05-062315	**15-06-1979-1-B**	**06/23/15 13:55**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 16:11**	**150627L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	61	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-05-062315	**15-06-1979-2-B**	**06/23/15 16:05**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 16:27**	**150627L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-05-062415	**15-06-1979-3-B**	**06/24/15 07:40**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 16:44**	**150627L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-10-062415	**15-06-1979-4-B**	**06/24/15 09:10**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 17:00**	**150627L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	27	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-922-609**	**N/A**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 10:41**	**150627L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-05-05-062315	**15-06-1979-1-A**	**06/23/15 13:55**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:45**	**150626L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	2.23	0.761	1.02	
Barium	11.3	0.508	1.02	
Beryllium	ND	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	0.613	0.254	1.02	
Cobalt	0.678	0.254	1.02	
Copper	1.53	0.508	1.02	
Lead	ND	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	0.380	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	2.78	0.254	1.02	
Zinc	6.92	1.02	1.02	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-03-05-062315	**15-06-1979-2-A**	**06/23/15 16:05**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:49**	**150626L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	3.33	0.765	1.02	
Barium	31.2	0.510	1.02	
Beryllium	ND	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	2.35	0.255	1.02	
Cobalt	1.68	0.255	1.02	
Copper	2.92	0.510	1.02	
Lead	0.801	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	2.52	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	5.32	0.255	1.02	
Zinc	10.6	1.02	1.02	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-08-05-062415	**15-06-1979-3-A**	**06/24/15 07:40**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:50**	**150626L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	2.54	0.765	1.02	
Barium	18.5	0.510	1.02	
Beryllium	ND	0.255	1.02	
Cadmium	ND	0.510	1.02	
Chromium	1.25	0.255	1.02	
Cobalt	1.02	0.255	1.02	
Copper	3.30	0.510	1.02	
Lead	0.552	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	0.997	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	3.70	0.255	1.02	
Zinc	10.1	1.02	1.02	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-09-10-062415	**15-06-1979-4-A**	**06/24/15 09:10**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:52**	**150626L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	ND	0.773	1.03	
Barium	6.82	0.515	1.03	
Beryllium	ND	0.258	1.03	
Cadmium	ND	0.515	1.03	
Chromium	0.778	0.258	1.03	
Cobalt	0.422	0.258	1.03	
Copper	1.06	0.515	1.03	
Lead	ND	0.515	1.03	
Molybdenum	ND	0.258	1.03	
Nickel	0.431	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	2.62	0.258	1.03	
Zinc	3.36	1.03	1.03	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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	**097-01-002-21368**	**N/A**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:25**	**150626L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	ND	0.500	1.00	
Beryllium	ND	0.250	1.00	
Cadmium	ND	0.500	1.00	
Chromium	ND	0.250	1.00	
Cobalt	ND	0.250	1.00	
Copper	ND	0.500	1.00	
Lead	ND	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	ND	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	ND	0.250	1.00	
Zinc	ND	1.00	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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-05-05-062315	**15-06-1979-1-A**	**06/23/15 13:55**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 16:31**	**150629L02**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-05-062315	**15-06-1979-2-A**	**06/23/15 16:05**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 17:09**	**150629L02**

Parameter	Result	RL	DF	Qualifiers
Mercury	0.169	0.0847	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-05-062415	**15-06-1979-3-A**	**06/24/15 07:40**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 17:11**	**150629L02**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-10-062415	**15-06-1979-4-A**	**06/24/15 09:10**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 17:13**	**150629L02**

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
Method Blank	**099-16-272-1405**	**N/A**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 16:27**	**150629L02**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-05-05-062315	**15-06-1979-1-A**	**06/23/15 13:55**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 15:21**	**150707L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	47	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 3 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	46	25-120	
Nitrobenzene-d5	43	33-123	
p-Terphenyl-d14	54	27-159	
Phenol-d6	46	26-122	
2,4,6-Tribromophenol	59	18-138	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-03-05-062315	**15-06-1979-2-A**	**06/23/15 16:05**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 15:39**	**150707L02**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.51	1.00	
Acenaphthylene	ND	0.51	1.00	
Aniline	ND	0.51	1.00	
Anthracene	ND	0.51	1.00	
Azobenzene	ND	0.51	1.00	
Benzidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.51	1.00	
Benzo (a) Pyrene	ND	0.51	1.00	
Benzo (b) Fluoranthene	ND	0.51	1.00	
Benzo (g,h,i) Perylene	ND	0.51	1.00	
Benzo (k) Fluoranthene	ND	0.51	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.51	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.51	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.51	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.51	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.51	1.00	
Butyl Benzyl Phthalate	ND	0.51	1.00	
4-Chloro-3-Methylphenol	ND	0.51	1.00	
4-Chloroaniline	ND	0.51	1.00	
2-Chloronaphthalene	ND	0.51	1.00	
2-Chlorophenol	ND	0.51	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.51	1.00	
Chrysene	ND	0.51	1.00	
Di-n-Butyl Phthalate	ND	0.51	1.00	
Di-n-Octyl Phthalate	ND	0.51	1.00	
Dibenz (a,h) Anthracene	ND	0.51	1.00	
Dibenzofuran	ND	0.51	1.00	
1,2-Dichlorobenzene	ND	0.51	1.00	
1,3-Dichlorobenzene	ND	0.51	1.00	
1,4-Dichlorobenzene	ND	0.51	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.51	1.00	
Diethyl Phthalate	ND	0.51	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: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.51	1.00	
2,4-Dimethylphenol	ND	0.51	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.51	1.00	
2,6-Dinitrotoluene	ND	0.51	1.00	
Fluoranthene	ND	0.51	1.00	
Fluorene	ND	0.51	1.00	
Hexachloro-1,3-Butadiene	ND	0.51	1.00	
Hexachlorobenzene	ND	0.51	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.51	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.51	1.00	
Isophorone	ND	0.51	1.00	
2-Methylnaphthalene	ND	0.51	1.00	
1-Methylnaphthalene	ND	0.51	1.00	
2-Methylphenol	ND	0.51	1.00	
3/4-Methylphenol	ND	0.51	1.00	
N-Nitroso-di-n-propylamine	ND	0.51	1.00	
N-Nitrosodimethylamine	ND	0.51	1.00	
N-Nitrosodiphenylamine	ND	0.51	1.00	
Naphthalene	ND	0.51	1.00	
4-Nitroaniline	ND	0.51	1.00	
3-Nitroaniline	ND	0.51	1.00	
2-Nitroaniline	ND	0.51	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.51	1.00	
2-Nitrophenol	ND	0.51	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.51	1.00	
Phenol	ND	0.51	1.00	
Pyrene	ND	0.51	1.00	
Pyridine	ND	0.51	1.00	
1,2,4-Trichlorobenzene	ND	0.51	1.00	
2,4,6-Trichlorophenol	ND	0.51	1.00	
2,4,5-Trichlorophenol	ND	0.51	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 6 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	62	25-120	
Nitrobenzene-d5	58	33-123	
p-Terphenyl-d14	83	27-159	
Phenol-d6	64	26-122	
2,4,6-Tribromophenol	84	18-138	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-08-05-062415	**15-06-1979-3-A**	**06/24/15 07:40**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 15:57**	**150707L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	72	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 9 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	70	25-120	
Nitrobenzene-d5	66	33-123	
p-Terphenyl-d14	80	27-159	
Phenol-d6	70	26-122	
2,4,6-Tribromophenol	85	18-138	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
MW-09-10-062415	**15-06-1979-4-A**	**06/24/15 09:10**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 16:15**	**150707L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 12 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	80	25-120	
Nitrobenzene-d5	72	33-123	
p-Terphenyl-d14	87	27-159	
Phenol-d6	81	26-122	
2,4,6-Tribromophenol	91	18-138	

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

Date Received: 06/25/15
Work Order: 15-06-1979
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
Method Blank	**099-12-549-3334**	**N/A**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 13:15**	**150707L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 15 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	78	25-120	
Nitrobenzene-d5	74	33-123	
p-Terphenyl-d14	82	27-159	
Phenol-d6	79	26-122	
2,4,6-Tribromophenol	79	18-138	

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

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 5035
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
MW-05-05-062315	**15-06-1979-1-D**	**06/23/15 13:55**	**Solid**	**GC/MS Q**	**06/23/15**	**06/26/15 21:03**	**150626L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	42	1.00	
Benzene	ND	0.85	1.00	
Bromobenzene	ND	0.85	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.85	1.00	
Bromoform	ND	4.2	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.85	1.00	
sec-Butylbenzene	ND	0.85	1.00	
tert-Butylbenzene	ND	0.85	1.00	
Carbon Disulfide	ND	8.5	1.00	
Carbon Tetrachloride	ND	0.85	1.00	
Chlorobenzene	ND	0.85	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.85	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.85	1.00	
4-Chlorotoluene	ND	0.85	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.00	
1,2-Dibromoethane	ND	0.85	1.00	
Dibromomethane	ND	0.85	1.00	
1,2-Dichlorobenzene	ND	0.85	1.00	
1,3-Dichlorobenzene	ND	0.85	1.00	
1,4-Dichlorobenzene	ND	0.85	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.85	1.00	
1,2-Dichloroethane	ND	0.85	1.00	
1,1-Dichloroethene	ND	0.85	1.00	
c-1,2-Dichloroethene	ND	0.85	1.00	
t-1,2-Dichloroethene	ND	0.85	1.00	
1,2-Dichloropropane	ND	0.85	1.00	
1,3-Dichloropropane	ND	0.85	1.00	
2,2-Dichloropropane	ND	4.2	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 2 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.85	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.85	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.85	1.00	
p-Isopropyltoluene	ND	0.85	1.00	
Methylene Chloride	ND	8.5	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.5	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.85	1.00	
1,1,1,2-Tetrachloroethane	ND	0.85	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.85	1.00	
Toluene	ND	0.85	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.85	1.00	
1,1,2-Trichloroethane	ND	0.85	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.5	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.5	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.5	1.00	
Vinyl Chloride	ND	0.85	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.85	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	77-120	
Dibromofluoromethane	106	80-123	
1,2-Dichloroethane-d4	115	79-139	
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

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 5035
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
MW-03-05-062315	**15-06-1979-2-D**	**06/23/15 16:05**	**Solid**	**GC/MS Q**	**06/23/15**	**06/26/15 21:30**	**150626L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	80	1.00	
Benzene	ND	1.6	1.00	
Bromobenzene	ND	1.6	1.00	
Bromochloromethane	ND	3.2	1.00	
Bromodichloromethane	ND	1.6	1.00	
Bromoform	ND	8.0	1.00	
Bromomethane	ND	32	1.00	
2-Butanone	ND	32	1.00	
n-Butylbenzene	ND	1.6	1.00	
sec-Butylbenzene	ND	1.6	1.00	
tert-Butylbenzene	ND	1.6	1.00	
Carbon Disulfide	ND	16	1.00	
Carbon Tetrachloride	ND	1.6	1.00	
Chlorobenzene	ND	1.6	1.00	
Chloroethane	ND	3.2	1.00	
Chloroform	ND	1.6	1.00	
Chloromethane	ND	32	1.00	
2-Chlorotoluene	ND	1.6	1.00	
4-Chlorotoluene	ND	1.6	1.00	
Dibromochloromethane	ND	3.2	1.00	
1,2-Dibromo-3-Chloropropane	ND	8.0	1.00	
1,2-Dibromoethane	ND	1.6	1.00	
Dibromomethane	ND	1.6	1.00	
1,2-Dichlorobenzene	ND	1.6	1.00	
1,3-Dichlorobenzene	ND	1.6	1.00	
1,4-Dichlorobenzene	ND	1.6	1.00	
Dichlorodifluoromethane	ND	3.2	1.00	
1,1-Dichloroethane	ND	1.6	1.00	
1,2-Dichloroethane	ND	1.6	1.00	
1,1-Dichloroethene	ND	1.6	1.00	
c-1,2-Dichloroethene	ND	1.6	1.00	
t-1,2-Dichloroethene	ND	1.6	1.00	
1,2-Dichloropropane	ND	1.6	1.00	
1,3-Dichloropropane	ND	1.6	1.00	
2,2-Dichloropropane	ND	8.0	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: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	3.2	1.00	
c-1,3-Dichloropropene	ND	1.6	1.00	
t-1,3-Dichloropropene	ND	3.2	1.00	
Ethylbenzene	ND	1.6	1.00	
2-Hexanone	ND	32	1.00	
Isopropylbenzene	ND	1.6	1.00	
p-Isopropyltoluene	ND	1.6	1.00	
Methylene Chloride	ND	16	1.00	
4-Methyl-2-Pentanone	ND	32	1.00	
Naphthalene	ND	16	1.00	
n-Propylbenzene	ND	3.2	1.00	
Styrene	ND	1.6	1.00	
1,1,1,2-Tetrachloroethane	ND	1.6	1.00	
1,1,2,2-Tetrachloroethane	ND	3.2	1.00	
Tetrachloroethene	ND	1.6	1.00	
Toluene	ND	1.6	1.00	
1,2,3-Trichlorobenzene	ND	3.2	1.00	
1,2,4-Trichlorobenzene	ND	3.2	1.00	
1,1,1-Trichloroethane	ND	1.6	1.00	
1,1,2-Trichloroethane	ND	1.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	16	1.00	
Trichloroethene	ND	3.2	1.00	
Trichlorofluoromethane	ND	16	1.00	
1,2,3-Trichloropropane	ND	3.2	1.00	
1,2,4-Trimethylbenzene	ND	3.2	1.00	
1,3,5-Trimethylbenzene	ND	3.2	1.00	
Vinyl Acetate	ND	16	1.00	
Vinyl Chloride	ND	1.6	1.00	
p/m-Xylene	ND	3.2	1.00	
o-Xylene	ND	1.6	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	3.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	77-120	
Dibromofluoromethane	109	80-123	
1,2-Dichloroethane-d4	118	79-139	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: CG Roxane			Page 5 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-05-062415	**15-06-1979-3-D**	**06/24/15 07:40**	**Solid**	**GC/MS Q**	**06/24/15**	**06/26/15 21:56**	**150626L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	53	1.00	
Benzene	ND	1.1	1.00	
Bromobenzene	ND	1.1	1.00	
Bromochloromethane	ND	2.1	1.00	
Bromodichloromethane	ND	1.1	1.00	
Bromoform	ND	5.3	1.00	
Bromomethane	ND	21	1.00	
2-Butanone	ND	21	1.00	
n-Butylbenzene	ND	1.1	1.00	
sec-Butylbenzene	ND	1.1	1.00	
tert-Butylbenzene	ND	1.1	1.00	
Carbon Disulfide	ND	11	1.00	
Carbon Tetrachloride	ND	1.1	1.00	
Chlorobenzene	ND	1.1	1.00	
Chloroethane	ND	2.1	1.00	
Chloroform	ND	1.1	1.00	
Chloromethane	ND	21	1.00	
2-Chlorotoluene	ND	1.1	1.00	
4-Chlorotoluene	ND	1.1	1.00	
Dibromochloromethane	ND	2.1	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.3	1.00	
1,2-Dibromoethane	ND	1.1	1.00	
Dibromomethane	ND	1.1	1.00	
1,2-Dichlorobenzene	ND	1.1	1.00	
1,3-Dichlorobenzene	ND	1.1	1.00	
1,4-Dichlorobenzene	ND	1.1	1.00	
Dichlorodifluoromethane	ND	2.1	1.00	
1,1-Dichloroethane	ND	1.1	1.00	
1,2-Dichloroethane	ND	1.1	1.00	
1,1-Dichloroethene	ND	1.1	1.00	
c-1,2-Dichloroethene	ND	1.1	1.00	
t-1,2-Dichloroethene	ND	1.1	1.00	
1,2-Dichloropropane	ND	1.1	1.00	
1,3-Dichloropropane	ND	1.1	1.00	
2,2-Dichloropropane	ND	5.3	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 6 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.1	1.00	
c-1,3-Dichloropropene	ND	1.1	1.00	
t-1,3-Dichloropropene	ND	2.1	1.00	
Ethylbenzene	ND	1.1	1.00	
2-Hexanone	ND	21	1.00	
Isopropylbenzene	ND	1.1	1.00	
p-Isopropyltoluene	ND	1.1	1.00	
Methylene Chloride	ND	11	1.00	
4-Methyl-2-Pentanone	ND	21	1.00	
Naphthalene	ND	11	1.00	
n-Propylbenzene	ND	2.1	1.00	
Styrene	ND	1.1	1.00	
1,1,1,2-Tetrachloroethane	ND	1.1	1.00	
1,1,2,2-Tetrachloroethane	ND	2.1	1.00	
Tetrachloroethene	ND	1.1	1.00	
Toluene	ND	1.1	1.00	
1,2,3-Trichlorobenzene	ND	2.1	1.00	
1,2,4-Trichlorobenzene	ND	2.1	1.00	
1,1,1-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
Trichloroethene	ND	2.1	1.00	
Trichlorofluoromethane	ND	11	1.00	
1,2,3-Trichloropropane	ND	2.1	1.00	
1,2,4-Trimethylbenzene	ND	2.1	1.00	
1,3,5-Trimethylbenzene	ND	2.1	1.00	
Vinyl Acetate	ND	11	1.00	
Vinyl Chloride	ND	1.1	1.00	
p/m-Xylene	ND	2.1	1.00	
o-Xylene	ND	1.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	77-120	
Dibromofluoromethane	108	80-123	
1,2-Dichloroethane-d4	117	79-139	
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

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 5035
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
MW-09-10-062415	**15-06-1979-4-D**	**06/24/15 09:10**	**Solid**	**GC/MS Q**	**06/24/15**	**06/26/15 22:22**	**150626L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	68	1.00	
Benzene	ND	1.4	1.00	
Bromobenzene	ND	1.4	1.00	
Bromochloromethane	ND	2.7	1.00	
Bromodichloromethane	ND	1.4	1.00	
Bromoform	ND	6.8	1.00	
Bromomethane	ND	27	1.00	
2-Butanone	ND	27	1.00	
n-Butylbenzene	ND	1.4	1.00	
sec-Butylbenzene	ND	1.4	1.00	
tert-Butylbenzene	ND	1.4	1.00	
Carbon Disulfide	ND	14	1.00	
Carbon Tetrachloride	ND	1.4	1.00	
Chlorobenzene	ND	1.4	1.00	
Chloroethane	ND	2.7	1.00	
Chloroform	ND	1.4	1.00	
Chloromethane	ND	27	1.00	
2-Chlorotoluene	ND	1.4	1.00	
4-Chlorotoluene	ND	1.4	1.00	
Dibromochloromethane	ND	2.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	6.8	1.00	
1,2-Dibromoethane	ND	1.4	1.00	
Dibromomethane	ND	1.4	1.00	
1,2-Dichlorobenzene	ND	1.4	1.00	
1,3-Dichlorobenzene	ND	1.4	1.00	
1,4-Dichlorobenzene	ND	1.4	1.00	
Dichlorodifluoromethane	ND	2.7	1.00	
1,1-Dichloroethane	ND	1.4	1.00	
1,2-Dichloroethane	ND	1.4	1.00	
1,1-Dichloroethene	ND	1.4	1.00	
c-1,2-Dichloroethene	ND	1.4	1.00	
t-1,2-Dichloroethene	ND	1.4	1.00	
1,2-Dichloropropane	ND	1.4	1.00	
1,3-Dichloropropane	ND	1.4	1.00	
2,2-Dichloropropane	ND	6.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 8 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.7	1.00	
c-1,3-Dichloropropene	ND	1.4	1.00	
t-1,3-Dichloropropene	ND	2.7	1.00	
Ethylbenzene	ND	1.4	1.00	
2-Hexanone	ND	27	1.00	
Isopropylbenzene	ND	1.4	1.00	
p-Isopropyltoluene	ND	1.4	1.00	
Methylene Chloride	ND	14	1.00	
4-Methyl-2-Pentanone	ND	27	1.00	
Naphthalene	ND	14	1.00	
n-Propylbenzene	ND	2.7	1.00	
Styrene	ND	1.4	1.00	
1,1,1,2-Tetrachloroethane	ND	1.4	1.00	
1,1,2,2-Tetrachloroethane	ND	2.7	1.00	
Tetrachloroethene	ND	1.4	1.00	
Toluene	ND	1.4	1.00	
1,2,3-Trichlorobenzene	ND	2.7	1.00	
1,2,4-Trichlorobenzene	ND	2.7	1.00	
1,1,1-Trichloroethane	ND	1.4	1.00	
1,1,2-Trichloroethane	ND	1.4	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	14	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	14	1.00	
1,2,3-Trichloropropane	ND	2.7	1.00	
1,2,4-Trimethylbenzene	ND	2.7	1.00	
1,3,5-Trimethylbenzene	ND	2.7	1.00	
Vinyl Acetate	ND	14	1.00	
Vinyl Chloride	ND	1.4	1.00	
p/m-Xylene	ND	2.7	1.00	
o-Xylene	ND	1.4	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.7	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	77-120	
Dibromofluoromethane	107	80-123	
1,2-Dichloroethane-d4	117	79-139	
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

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: EPA 5035
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	**099-14-312-492**	**N/A**	**Solid**	**GC/MS Q**	**06/26/15**	**06/26/15 13:24**	**150626L044**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	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	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	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	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	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	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 10 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	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	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	77-120	
Dibromofluoromethane	104	80-123	
1,2-Dichloroethane-d4	108	79-139	
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

Date Received: 06/25/15
Work Order: 15-06-1979

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-05-05-062315	**15-06-1979-1**	**06/23/15 13:55**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	9.16	0.01	1.00		pH units	06/25/15	06/25/15	EPA 9045D
Alkalinity, Total (as CaCO3)	560	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	3180	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	70	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	93	12	25.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	280	38	25.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	50	10.0		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.92	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	06/25/15	06/25/15	SM 5540C (M)
Total Nitrogen	71	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

MW-03-05-062315	**15-06-1979-2**	**06/23/15 16:05**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	9.24	0.01	1.00		pH units	06/25/15	06/25/15	EPA 9045D
Alkalinity, Total (as CaCO3)	460	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	6710	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	0.78	0.50	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	2.4	1.5	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	50	10.0		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.70	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	06/25/15	06/25/15	SM 5540C (M)
Total Nitrogen	0.70	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

MW-08-05-062415	**15-06-1979-3**	**06/24/15 07:40**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.77	0.01	1.00		pH units	06/25/15	06/25/15	EPA 9045D
Alkalinity, Total (as CaCO3)	230	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	2060	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	110	25	50.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	320	75	50.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	50	10.0		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.79	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	06/25/15	06/25/15	SM 5540C (M)
Total Nitrogen	0.79	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

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: 06/25/15
Work Order: 15-06-1979

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-09-10-062415	**15-06-1979-4**	**06/24/15 09:10**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.21	0.01	1.00		pH units	06/25/15	06/25/15	EPA 9045D
Alkalinity, Total (as CaCO3)	160	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	4370	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	37	5.0	10.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	110	15	10.0		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	50	10.0		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.58	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	06/25/15	06/25/15	SM 5540C (M)
Total Nitrogen	0.58	0.50	1.00		mg/kg	N/A	07/06/15	Total Nitrogen by Calc

Method Blank						**N/A**		**Solid**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	ND	1.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	10	1.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	ND	0.50	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Total Phosphate	ND	1.5	1.00		mg/kg	06/25/15	06/25/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	ND	0.50	1.00		mg/kg	06/26/15	06/26/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	06/25/15	06/25/15	SM 5540C (M)
MBAS	ND	1.0	1.00		mg/kg	06/25/15	06/25/15	SM 5540C (M)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: N/A
Method: EPA 300.0

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1937-15	**Sample**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 15:38**	**150627S01P**
15-06-1937-15	**Matrix Spike**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 17:17**	**150627S01P**
15-06-1937-15	**Matrix Spike Duplicate**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 17:33**	**150627S01P**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	ND	500.0	516.2	103	516.0	103	80-120	0	0-20	
Sulfate	2447	500.0	5157	542	4409	392	80-120	16	0-20	3

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1886-3	**Sample**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPS1**
15-06-1886-3	**Matrix Spike**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPS1**
15-06-1886-3	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	93.72	100.0	190.5	97	192.2	99	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:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 3 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1886-3	**Sample**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4S1**
15-06-1886-3	**Matrix Spike**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4S1**
15-06-1886-3	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	286.8	305.0	582.5	97	587.5	99	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:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E (M)
Project: CG Roxane			Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-1886-1	**Sample**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3S1**
15-06-1886-1	**Matrix Spike**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3S1**
15-06-1886-1	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	1.018	2.500	3.535	101	3.595	103	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: N/A
Method: SM 5540C (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-05-05-062315	**Sample**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 13:54**	**F0625SURS1**
MW-05-05-062315	**Matrix Spike**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 13:54**	**F0625SURS1**
MW-05-05-062315	**Matrix Spike Duplicate**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 13:54**	**F0625SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	10.00	8.900	89	8.700	87	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-09-10-062415	**Sample**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 15:57**	**F0625SURS2**
MW-09-10-062415	**Matrix Spike**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 15:57**	**F0625SURS2**
MW-09-10-062415	**Matrix Spike Duplicate**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 15:57**	**F0625SURS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	10.00	8.600	86	9.000	90	70-130	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane			Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-05-05-062315	**Sample**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:45**	**150626S02**
MW-05-05-062315	**Matrix Spike**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:46**	**150626S02**
MW-05-05-062315	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:48**	**150626S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	18.70	75	18.42	74	50-115	1	0-20	
Arsenic	2.226	25.00	28.04	103	26.94	99	75-125	4	0-20	
Barium	11.27	25.00	38.59	109	34.67	94	75-125	11	0-20	
Beryllium	ND	25.00	26.15	105	25.39	102	75-125	3	0-20	
Cadmium	ND	25.00	25.93	104	25.53	102	75-125	2	0-20	
Chromium	0.6134	25.00	28.16	110	27.41	107	75-125	3	0-20	
Cobalt	0.6776	25.00	27.78	108	27.08	106	75-125	3	0-20	
Copper	1.532	25.00	28.07	106	27.52	104	75-125	2	0-20	
Lead	ND	25.00	26.88	108	26.35	105	75-125	2	0-20	
Molybdenum	ND	25.00	26.20	105	25.37	101	75-125	3	0-20	
Nickel	0.3801	25.00	27.25	107	26.58	105	75-125	2	0-20	
Selenium	ND	25.00	24.82	99	24.27	97	75-125	2	0-20	
Silver	ND	12.50	12.74	102	12.39	99	75-125	3	0-20	
Thallium	ND	25.00	24.71	99	24.47	98	75-125	1	0-20	
Vanadium	2.777	25.00	29.95	109	28.56	103	75-125	5	0-20	
Zinc	6.922	25.00	33.89	108	31.58	99	75-125	7	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane			Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-05-05-062315	**Sample**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 16:31**	**150629S02**
MW-05-05-062315	**Matrix Spike**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 16:42**	**150629S02**
MW-05-05-062315	**Matrix Spike Duplicate**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 16:44**	**150629S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	1.033	124	1.015	122	71-137	2	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane			Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-05-05-062315	**Sample**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 15:21**	**150707S02**
MW-05-05-062315	**Matrix Spike**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 14:45**	**150707S02**
MW-05-05-062315	**Matrix Spike Duplicate**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 15:03**	**150707S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	7.158	72	7.249	72	34-148	1	0-20	
Acenaphthylene	ND	10.00	7.099	71	7.171	72	53-120	1	0-20	
Butyl Benzyl Phthalate	ND	10.00	7.616	76	7.774	78	15-189	2	0-20	
4-Chloro-3-Methylphenol	ND	10.00	7.021	70	7.095	71	32-120	1	0-20	
2-Chlorophenol	ND	10.00	6.710	67	7.393	74	53-120	10	0-20	
1,4-Dichlorobenzene	ND	10.00	5.522	55	6.052	61	43-120	9	0-26	
Dimethyl Phthalate	ND	10.00	7.075	71	7.047	70	44-122	0	0-20	
2,4-Dinitrotoluene	ND	10.00	7.608	76	7.603	76	28-120	0	0-20	
Fluorene	ND	10.00	7.216	72	7.244	72	12-186	0	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	6.039	60	6.573	66	38-140	8	0-20	
Naphthalene	ND	10.00	6.429	64	6.866	69	20-140	7	0-20	
4-Nitrophenol	ND	10.00	5.901	59	5.079	51	14-128	15	0-59	
Pentachlorophenol	ND	10.00	6.953	70	6.261	63	10-124	10	0-20	
Phenol	ND	10.00	6.500	65	7.135	71	22-124	9	0-20	
Pyrene	ND	10.00	7.161	72	7.342	73	31-169	3	0-20	
1,2,4-Trichlorobenzene	ND	10.00	6.626	66	7.072	71	56-120	7	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 9045D
Project: CG Roxane			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1853-2	**Sample**	**Solid**	**PH 4**	**06/25/15 00:00**	**06/25/15 16:44**	**F0625PHD2**
15-06-1853-2	**Sample Duplicate**	**Solid**	**PH 4**	**06/25/15 00:00**	**06/25/15 16:44**	**F0625PHD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	8.250	8.260	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: N/A
Method: EPA 9045D

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1854-3	**Sample**	**Solid**	**PH 4**	**06/25/15 00:00**	**06/25/15 17:14**	**F0625PHD3**
15-06-1854-3	**Sample Duplicate**	**Solid**	**PH 4**	**06/25/15 00:00**	**06/25/15 17:14**	**F0625PHD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	8.620	8.590	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B M
Project: CG Roxane			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1886-1	**Sample**	**Solid**	**PH1/BUR03**	**06/30/15 00:00**	**06/30/15 17:18**	**F0630ALKD3**
15-06-1886-1	**Sample Duplicate**	**Solid**	**PH1/BUR03**	**06/30/15 00:00**	**06/30/15 17:18**	**F0630ALKD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	45.00	45.00	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C (M)
Project: CG Roxane			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1885-1	**Sample**	**Solid**	**N/A**	**06/30/15 00:00**	**06/30/15 17:00**	**F0630TDSD1**
15-06-1885-1	**Sample Duplicate**	**Solid**	**N/A**	**06/30/15 00:00**	**06/30/15 17:00**	**F0630TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	19430	20900	7	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 06/25/15
924 Anacapa Street, Suite 4A	Work Order: 15-06-1979
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 N Org B (M)
Project: CG Roxane	Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1883-1	**Sample**	**Solid**	**BUR05**	**06/30/15 00:00**	**06/30/15 14:03**	**F0630TKND1**
15-06-1883-1	**Sample Duplicate**	**Solid**	**BUR05**	**06/30/15 00:00**	**06/30/15 14:03**	**F0630TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	9800	9968	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-922-609	**LCS**	**Solid**	**IC 10**	**06/27/15**	**06/27/15 10:57**	**150627L01P**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	500.0	487.2	97	90-110	
Sulfate	500.0	490.5	98	90-110	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 06/25/15
924 Anacapa Street, Suite 4A	Work Order: 15-06-1979
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E (M)
Project: CG Roxane	Page 2 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5438	**LCS**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPL1**
099-05-001-5438	**LCSD**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	2.000	2.125	106	2.100	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:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 3 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-274-26	**LCS**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4L1**
099-14-274-26	**LCSD**	**Solid**	**UV 7**	**06/25/15**	**06/25/15 18:00**	**F0625PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	6.100	6.500	107	6.400	105	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

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: N/A
Method: SM 4500-NH3 B/C (M)
Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-812-799	**LCS**	**Solid**	**BUR05**	**06/30/15**	**06/30/15 15:00**	**F0630NH3L2**
099-12-812-799	**LCSD**	**Solid**	**BUR05**	**06/30/15**	**06/30/15 15:00**	**F0630NH3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	250.0	221.2	88	226.8	91	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

Date Received: 06/25/15
Work Order: 15-06-1979
Preparation: N/A
Method: SM 4500-NO3 E (M)
Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5437	**LCS**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3L1**
099-05-001-5437	**LCSD**	**Solid**	**UV 7**	**06/26/15**	**06/26/15 16:00**	**F0626NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	2.500	2.490	100	2.510	100	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 6 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-027-42	**LCS**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 13:54**	**F0625SURL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	10.00	8.900	89	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-027-43	**LCS**	**Solid**	**UV 9**	**06/25/15**	**06/25/15 15:57**	**F0625SURL2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	10.00	9.000	90	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane			Page 8 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21368	**LCS**	**Solid**	**ICP 7300**	**06/26/15**	**07/01/15 14:27**	**150626L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	23.31	93	80-120	73-127	
Arsenic	25.00	23.22	93	80-120	73-127	
Barium	25.00	24.75	99	80-120	73-127	
Beryllium	25.00	22.86	91	80-120	73-127	
Cadmium	25.00	24.16	97	80-120	73-127	
Chromium	25.00	25.37	101	80-120	73-127	
Cobalt	25.00	25.38	102	80-120	73-127	
Copper	25.00	24.41	98	80-120	73-127	
Lead	25.00	24.75	99	80-120	73-127	
Molybdenum	25.00	23.78	95	80-120	73-127	
Nickel	25.00	25.53	102	80-120	73-127	
Selenium	25.00	22.79	91	80-120	73-127	
Silver	12.50	12.53	100	80-120	73-127	
Thallium	25.00	22.89	92	80-120	73-127	
Vanadium	25.00	24.39	98	80-120	73-127	
Zinc	25.00	23.15	93	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:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane			Page 9 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-1405	**LCS**	**Solid**	**Mercury 05**	**06/29/15**	**06/29/15 18:21**	**150629L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.9511	114	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane			Page 10 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-549-3334	**LCS**	**Solid**	**GC/MS CCC**	**07/07/15**	**07/07/15 12:57**	**150707L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acenaphthene	10.00	8.344	83	51-123	39-135	
Acenaphthylene	10.00	8.252	83	52-120	41-131	
Butyl Benzyl Phthalate	10.00	9.000	90	43-139	27-155	
4-Chloro-3-Methylphenol	10.00	8.057	81	55-121	44-132	
2-Chlorophenol	10.00	8.619	86	58-124	47-135	
1,4-Dichlorobenzene	10.00	7.613	76	42-132	27-147	
Dimethyl Phthalate	10.00	7.871	79	51-123	39-135	
2,4-Dinitrotoluene	10.00	8.472	85	51-129	38-142	
Fluorene	10.00	8.184	82	54-126	42-138	
N-Nitroso-di-n-propylamine	10.00	7.979	80	40-136	24-152	
Naphthalene	10.00	8.082	81	32-146	13-165	
4-Nitrophenol	10.00	5.206	52	24-126	7-143	
Pentachlorophenol	10.00	6.186	62	23-131	5-149	
Phenol	10.00	8.271	83	40-130	25-145	
Pyrene	10.00	8.532	85	47-143	31-159	
1,2,4-Trichlorobenzene	10.00	8.159	82	45-129	31-143	

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/LCSD

Geosyntec Consultants		Date Received:	06/25/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-1979
Santa Barbara, CA 93101-2177		Preparation:	EPA 5035
		Method:	EPA 8260B
Project: CG Roxane			Page 11 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-492	**LCS**	**Solid**	**GC/MS Q**	**06/26/15**	**06/26/15 12:00**	**150626L044**
099-14-312-492	**LCSD**	**Solid**	**GC/MS Q**	**06/26/15**	**06/26/15 12:26**	**150626L044**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	42.81	86	46.15	92	30-150	10-170	8	0-20	
Benzene	50.00	49.09	98	49.53	99	79-120	72-127	1	0-20	
Bromobenzene	50.00	51.98	104	52.25	104	80-120	73-127	1	0-20	
Bromochloromethane	50.00	49.66	99	50.59	101	80-120	73-127	2	0-20	
Bromodichloromethane	50.00	51.40	103	51.35	103	73-127	64-136	0	0-20	
Bromoform	50.00	43.52	87	43.43	87	55-133	42-146	0	0-20	
Bromomethane	50.00	45.38	91	54.43	109	36-144	18-162	18	0-20	
2-Butanone	50.00	49.31	99	49.03	98	56-176	36-196	1	0-20	
n-Butylbenzene	50.00	54.47	109	55.00	110	78-126	70-134	1	0-20	
sec-Butylbenzene	50.00	51.47	103	51.85	104	79-127	71-135	1	0-20	
tert-Butylbenzene	50.00	51.76	104	52.00	104	80-128	72-136	0	0-20	
Carbon Disulfide	50.00	47.21	94	46.64	93	53-125	41-137	1	0-20	
Carbon Tetrachloride	50.00	51.42	103	51.32	103	58-142	44-156	0	0-20	
Chlorobenzene	50.00	48.11	96	48.51	97	80-120	73-127	1	0-20	
Chloroethane	50.00	51.11	102	53.63	107	60-120	50-130	5	0-20	
Chloroform	50.00	49.14	98	49.17	98	80-120	73-127	0	0-20	
Chloromethane	50.00	46.62	93	52.02	104	50-122	38-134	11	0-20	
2-Chlorotoluene	50.00	49.53	99	50.12	100	80-125	72-132	1	0-20	
4-Chlorotoluene	50.00	51.02	102	51.21	102	80-120	73-127	0	0-20	
Dibromochloromethane	50.00	51.47	103	53.30	107	70-130	60-140	3	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.39	103	50.46	101	54-132	41-145	2	0-20	
1,2-Dibromoethane	50.00	49.94	100	52.35	105	80-120	73-127	5	0-20	
Dibromomethane	50.00	49.94	100	50.22	100	80-122	73-129	1	0-20	
1,2-Dichlorobenzene	50.00	48.76	98	48.56	97	80-120	73-127	0	0-20	
1,3-Dichlorobenzene	50.00	49.01	98	48.90	98	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	50.00	48.19	96	48.44	97	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	61.72	123	64.04	128	32-158	11-179	4	0-20	
1,1-Dichloroethane	50.00	48.18	96	48.40	97	74-120	66-128	0	0-20	
1,2-Dichloroethane	50.00	50.39	101	50.99	102	79-121	72-128	1	0-20	
1,1-Dichloroethene	50.00	49.95	100	50.31	101	71-125	62-134	1	0-20	
c-1,2-Dichloroethene	50.00	51.50	103	52.38	105	80-123	73-130	2	0-20	
t-1,2-Dichloroethene	50.00	50.75	102	51.81	104	80-120	73-127	2	0-20	
1,2-Dichloropropane	50.00	51.00	102	51.21	102	77-120	70-127	0	0-20	
1,3-Dichloropropane	50.00	52.40	105	54.67	109	80-120	73-127	4	0-20	
2,2-Dichloropropane	50.00	53.06	106	52.99	106	58-142	44-156	0	0-20	
1,1-Dichloropropene	50.00	47.73	95	48.01	96	69-120	60-128	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/25/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-1979
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: CG Roxane		Page 12 of 12

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	55.88	112	56.58	113	74-128	65-137	1	0-20	
t-1,3-Dichloropropene	50.00	53.36	107	55.57	111	66-120	57-129	4	0-20	
Ethylbenzene	50.00	52.15	104	52.53	105	80-120	73-127	1	0-20	
2-Hexanone	50.00	51.75	104	51.42	103	67-151	53-165	1	0-20	
Isopropylbenzene	50.00	50.73	101	51.32	103	80-129	72-137	1	0-20	
p-Isopropyltoluene	50.00	54.21	108	54.03	108	80-122	73-129	0	0-20	
Methylene Chloride	50.00	50.26	101	51.30	103	72-120	64-128	2	0-20	
4-Methyl-2-Pentanone	50.00	50.78	102	51.23	102	72-126	63-135	1	0-20	
Naphthalene	50.00	46.25	92	45.90	92	64-124	54-134	1	0-20	
n-Propylbenzene	50.00	49.97	100	51.08	102	80-122	73-129	2	0-20	
Styrene	50.00	52.52	105	52.83	106	80-123	73-130	1	0-20	
1,1,1,2-Tetrachloroethane	50.00	53.00	106	54.50	109	73-133	63-143	3	0-20	
1,1,2,2-Tetrachloroethane	50.00	53.25	107	53.39	107	77-120	70-127	0	0-20	
Tetrachloroethene	50.00	47.74	95	49.43	99	75-123	67-131	3	0-20	
Toluene	50.00	51.55	103	51.44	103	80-120	73-127	0	0-20	
1,2,3-Trichlorobenzene	50.00	52.23	104	51.72	103	73-127	64-136	1	0-20	
1,2,4-Trichlorobenzene	50.00	52.21	104	52.17	104	74-128	65-137	0	0-20	
1,1,1-Trichloroethane	50.00	51.60	103	51.92	104	71-131	61-141	1	0-20	
1,1,2-Trichloroethane	50.00	49.07	98	51.73	103	80-120	73-127	5	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	50.12	100	50.15	100	77-125	69-133	0	0-20	
Trichloroethene	50.00	52.07	104	51.77	104	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	59.30	119	58.23	116	70-136	59-147	2	0-20	
1,2,3-Trichloropropane	50.00	49.20	98	50.01	100	60-120	50-130	2	0-20	
1,2,4-Trimethylbenzene	50.00	52.51	105	51.86	104	75-123	67-131	1	0-20	
1,3,5-Trimethylbenzene	50.00	55.16	110	55.72	111	80-123	73-130	1	0-20	
Vinyl Acetate	50.00	58.95	118	60.33	121	51-159	33-177	2	0-20	
Vinyl Chloride	50.00	51.28	103	53.43	107	68-120	59-129	4	0-20	
p/m-Xylene	100.0	103.4	103	104.2	104	80-122	73-129	1	0-20	
o-Xylene	50.00	49.87	100	50.36	101	79-127	71-135	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	47.29	95	48.59	97	64-124	54-134	3	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

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-06-1979 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	970	IC 10	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8260B	EPA 5035	905	GC/MS Q	2
EPA 8270C	EPA 3545	923	GC/MS CCC	1
EPA 9045D	N/A	688	PH 4	1
SM 2320B M	N/A	688	PH1/BUR03	1
SM 2540 C (M)	N/A	1009	N/A	1
SM 4500 N Org B (M)	N/A	685	BUR05	1
SM 4500 P B/E (M)	N/A	857	UV 7	1
SM 4500-NH3 B/C (M)	N/A	685	BUR05	1
SM 4500-NO3 E (M)	N/A	857	UV 7	1
SM 5540C (M)	N/A	687	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-06-1979 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

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO NO. / LAB USE ONLY
15-06-1979

CHAIN-OF-CUSTODY RECORD

DATE: 6/24/15
PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 924 Anacapa St Ste 4A
CITY: Santa Barbara, STATE: CA ZIP: 93101
TEL: 805-897-3800 E-MAIL: RSmith@geosyntec.com

CLIENT PROJECT NAME / NO.: CG Roxane
P.O. NO.:
PROJECT CONTACT: Ryan Smith
LAB CONTACT OR QUOTE NO.: Steve Nowak
GLOBAL ID:
LOG CODE:
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

EDD:
☐ COELT EDF ☒ OTHER Geosyntec Specific EDD

SPECIAL INSTRUCTIONS:
1 Cooler (KA) in this COC

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(g)~~ ~~CRQ~~ Total/Fecal Coliform	~~TPH(d)~~ ~~DRQ~~ MBAS	~~TPH~~ ~~C6-C36~~ ~~C6-C44~~ Anions/Gen Min	TPH ____ Total Phos and Phosphate	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	~~T22 Metals~~ ☐ 6010/747X ☐ 6020/747X Cam 17	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Total N, Nitrate, Nitrite, NH4, TKN	pH	TDS	
1	MW-05-05-062315	06/23/15	1355	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
2	MW-03-05-062315	06/23/15	1605	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
(KA)	~~MW-08-05-062315~~	~~06/24/15~~																							
3	MW-08-05-062415	06/24/15	0740	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
4	MW-09-10-062415	06/24/15	0910	S	5	2	3		X	X	X	X		X			X				X		X	X	X	

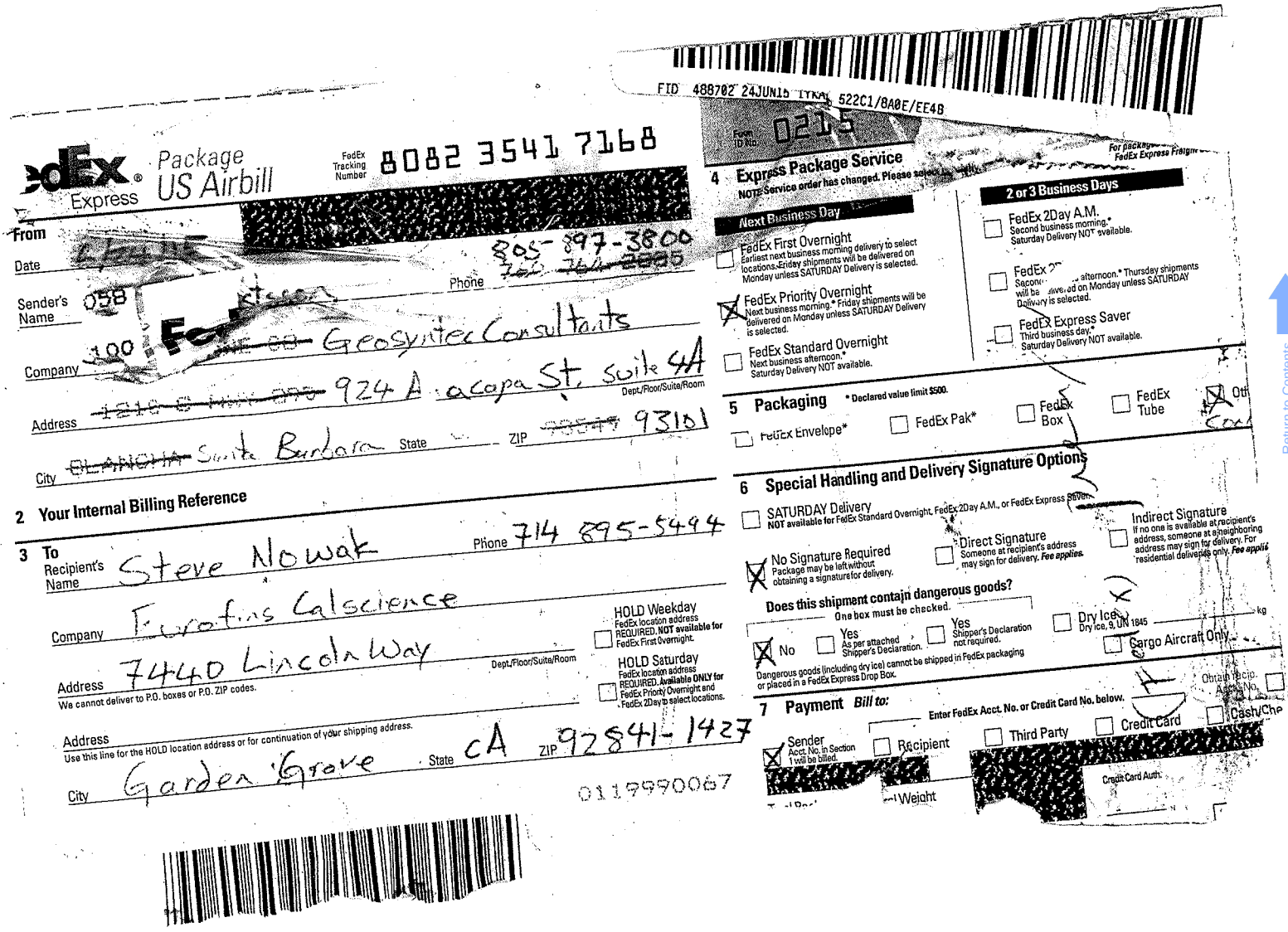
Relinquished by: (Signature)	6/24/15	Received by: (Signature/Affiliation)	Date: / Time:
Relinquished by: (Signature) (Fed-Ex)		Received by: (Signature/Affiliation) EG	Date: 6/25/15 Time: 0945
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: / Time:

2014-07-01 Revision

Return to Contents

~~1978~~ @ 6/25/15

1979 .



FID 488702 24JUN15 [illegible] 522C1/8A0E/EE4B

FedEx Express Package US Airbill

FedEx Tracking Number 8082 3541 7168

Form ID No. 0215

For package... FedEx Express Freight...

From

Date

Sender's Name 058

Phone 805-897-3800

Company Geosyntec Consultants

Address 924 Anacapa St. Suite 4A

Dept./Floor/Suite/Room

City Santa Barbara State ZIP 93101

2 Your Internal Billing Reference

3 To

Recipient's Name Steve Nowak 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 92841-1427

0119990067

4 Express Package Service

NOTE: Service order has changed. Please select...

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 2... — Second ... afternoon.* Thursday shipments will be ...livered 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

6 Special Handling and Delivery Signature Options

- SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver
- [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. 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.

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.

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 ____ kg
- Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

- [X] Sender — Acct. No. in Section 1 will be billed.
- Recipient
- Third Party
- Credit Card
- Cash/Che...

Obtain Recip. Acct. No.

Credit Card Auth.

Total Charges

Weight

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06- 19780 (6/25/15)

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 06 / 25 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.3°C); Temperature (w/o CF): 2 - 9 °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: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 812

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑ 1	☑	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers (6/25/15 JL)			
☐ 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 (3) ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☑ TerraCores® (3) ☐ _____

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: 812

Reviewed by: [illegible]

Return to Contents

eurofins | Calscience

Subcontractor Analysis Report

Work Order: 15-06-1979 Page 1 of 1

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Truesdail Laboratories, Inc. - Irvine,CA CA ELAP 1237
   Microbiology

Return to Contents

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING
Established 1931
3337 MICHELSON DRIVE, SUITE CN 750
IRVINE, CA 92612
(714) 730-6239 • FAX (714) 730-6462
www.truesdail.com

REPORT

Client: **Eurofins/Calscience**
7440 Lincoln Way
Garden Grove, CA 92841-1432
Attention: Stephen Nowalk
Project Name: Fecal Coliform
Project Number: 15-06-1979

Work Order No.: 15F0461
Printed: 07/02/2015

CASE NARRATIVE

SAMPLE RECEIPT SUMMARY

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
MW-05-05-062315	15F0461-01	Soil		06/22/2015 13:55	06/26/2015 11:30
MW-03-05-062315	15F0461-02	Soil		06/23/2015 16:05	06/26/2015 11:30
MW-08-05-062415	15F0461-03	Soil		06/24/2015 07:40	06/26/2015 11:30
MW-09-10-062415	15F0461-04	Soil		06/24/2015 09:10	06/26/2015 11:30

DEFINITIONS

Symbol	Definition
DF	Dilution Factor
MDL	Method Detection Limit
ND	Not Detected
RL	Reporting Limit

Respectfully yours,

Jeff Lee
Project Manager

Return to Contents

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

TRUESDAIL LABORATORIES, INC.

Client: Eurofins/Calscience

Project Name: Fecal Coliform
Project Number: 15-06-1979
Printed: 07/02/2015

MW-05-05-062315
15F0461-01 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	

MW-03-05-062315
15F0461-02 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	

MW-08-05-062415
15F0461-03 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	

MW-09-10-062415
15F0461-04 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507036	06/29/2015 16:00	PA	SM 9221 B	

Return to Contents

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

eurofins | Calscience
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

15F0461

TO: Truesdail
Irvine

CHAIN OF CUSTODY RECORD

DATE: 06/26/15
PAGE: 1 OF 1

LABORATORY CLIENT: Eurofins Calscience, Inc.	CLIENT PROJECT NAME / NUMBER: 15-06-1979
ADDRESS: 7440 Lincoln Way	PROJECT CONTACT: Stephen Nowak
CITY: Garden Grove, CA 92841	SAMPLER(S): (PRINT)
TEL: 714-895-5494	E-MAIL: StephenNowak@eurofinsUS.com
P.O. NO.:	QUOTE NO.:
LAB USE ONLY	

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☐ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ RCHIVE SAMPLES UNTIL ____ / ____ / ____

SPECIAL INSTRUCTIONS
Please use 6 dilutions

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Total & Fecal Coliforms
	MW-05-05-062315	06/22/15	13:55	S	1	X
	MW-03-05-062315	06/23/15	16:05	S	1	X
	MW-08-05-062415	06/24/15	07:40	S	1	X
	MW-09-10-062415	06/24/15	09:10	S	1	X

Relinquished by: (Signature)	(CALSCIENCE)	Received by / Affiliation: (Signature)	Date: 6/26/15 Time: 1130 AM
Relinquished by: (Signature) SB 24		Received by / Affiliation: (Signature)	Date: Time:
Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date: Time:

3.8°C

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06-2190

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/08/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: CG Roxane
Work Order Number: 15-06-2190

eurofins | Calscience

Work Order Narrative

Work Order: 15-06-2190 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/29/15. They were assigned to Work Order 15-06-2190.

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:	15-06-2190
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	06/29/15 10:00
		Number of Containers:	21
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-04-05-062415	15-06-2190-1	06/24/15 12:34	5	Solid
AP-4-05-062515	15-06-2190-2	06/25/15 12:30	5	Solid
AP-4-05-062515-DUP	15-06-2190-3	06/25/15 12:30	5	Solid
MW-02-10-062515	15-06-2190-4	06/25/15 17:31	5	Solid
Soil Profile	15-06-2190-5	06/26/15 11:30	1	Solid

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-2190
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/29/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-05-062415 (15-06-2190-1)						
Arsenic	1.11		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	9.92		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.350		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	0.501		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	3.02		0.490	mg/kg	EPA 6010B	EPA 3050B
Vanadium	1.75		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	5.33		0.980	mg/kg	EPA 6010B	EPA 3050B
pH	8.62	BU	0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	310		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	3690		10.0	mg/kg	SM 2540 C (M)	N/A
Phosphorus, Total	97		25	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	300		75	mg/kg	SM 4500 P B/E (M)	N/A
Ammonia (as N)	14		10	mg/kg	SM 4500-NH3 B/C (M)	N/A
AP-4-05-062515 (15-06-2190-2)						
Arsenic	2.95		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	16.7		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.05		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	0.886		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	2.76		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	0.864		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.591		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.492		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	2.52		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	10.6		0.990	mg/kg	EPA 6010B	EPA 3050B
pH	8.74	BU	0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	500		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	5000		10.0	mg/kg	SM 2540 C (M)	N/A
Phosphorus, Total	140		25	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	420		75	mg/kg	SM 4500 P B/E (M)	N/A
Ammonia (as N)	14		10	mg/kg	SM 4500-NH3 B/C (M)	N/A
Nitrate-Nitrite (as N)	0.54		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	0.54		0.50	mg/kg	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-2190
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/29/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
AP-4-05-062515-DUP (15-06-2190-3)						
Arsenic	3.61		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	20.0		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.07		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.22		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	3.43		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	0.496		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.259		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.23		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	3.41		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	11.0		0.985	mg/kg	EPA 6010B	EPA 3050B
pH	8.47	BU	0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	540		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	7000		10.0	mg/kg	SM 2540 C (M)	N/A
Phosphorus, Total	140		25	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	440		75	mg/kg	SM 4500 P B/E (M)	N/A
Nitrate-Nitrite (as N)	0.61		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	0.61		0.50	mg/kg	Total Nitrogen by Calc	N/A
MW-02-10-062515 (15-06-2190-4)						
Sulfate	17		10	mg/kg	EPA 300.0	N/A
Arsenic	0.770		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	33.3		0.498	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.00		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.57		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	5.19		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	0.648		0.498	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.841		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	10.3		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	33.0		0.995	mg/kg	EPA 6010B	EPA 3050B
pH	8.11	BU	0.01	pH units	EPA 9045D	N/A
Alkalinity, Total (as CaCO3)	100		5.0	mg/kg	SM 2320B M	N/A
Solids, Total Dissolved	9430		10.0	mg/kg	SM 2540 C (M)	N/A
Total Kjeldahl Nitrogen	63		50	mg/kg	SM 4500 N Org B (M)	N/A
Phosphorus, Total	260		50	mg/kg	SM 4500 P B/E (M)	N/A
Total Phosphate	790		150	mg/kg	SM 4500 P B/E (M)	N/A
Ammonia (as N)	11		10	mg/kg	SM 4500-NH3 B/C (M)	N/A
Nitrate-Nitrite (as N)	1.3		0.50	mg/kg	SM 4500-NO3 E (M)	N/A
Total Nitrogen	64		0.50	mg/kg	Total Nitrogen by Calc	N/A

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-2190
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/29/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
Soil Profile (15-06-2190-5)						
Arsenic	1.38		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	22.8		0.485	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.92		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.38		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	2.83		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	0.895		0.485	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.14		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	4.23		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	15.5		0.971	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: N/A
Method: EPA 300.0
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-05-062415	**15-06-2190-1-A**	**06/24/15 12:34**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 18:37**	**150630L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AP-4-05-062515	**15-06-2190-2-A**	**06/25/15 12:30**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 18:54**	**150630L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AP-4-05-062515-DUP	**15-06-2190-3-A**	**06/25/15 12:30**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 19:10**	**150630L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-10-062515	**15-06-2190-4-A**	**06/25/15 17:31**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 19:26**	**150630L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	17	10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-922-610**	**N/A**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 14:40**	**150630L01P**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	10	1.00	
Sulfate	ND	10	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: CG Roxane			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Soil Profile	**15-06-2190-5-A**	**06/26/15 11:30**	**Solid**	**GC 45**	**06/30/15**	**06/30/15 17:42**	**150630B02**

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	82	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
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	**099-15-490-1651**	**N/A**	**Solid**	**GC 45**	**06/30/15**	**06/30/15 15:53**	**150630B02**

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	82	61-145	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
MW-04-05-062415	**15-06-2190-1-B**	**06/24/15 12:34**	**Solid**	**ICP 7300**	**06/30/15**	**07/02/15 19:41**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	1.11	0.735	0.980	
Barium	9.92	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	0.350	0.245	0.980	
Cobalt	0.501	0.245	0.980	
Copper	3.02	0.490	0.980	
Lead	ND	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	ND	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	1.75	0.245	0.980	
Zinc	5.33	0.980	0.980	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
AP-4-05-062515	**15-06-2190-2-B**	**06/25/15 12:30**	**Solid**	**ICP 7300**	**06/30/15**	**07/02/15 19:43**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	2.95	0.743	0.990	
Barium	16.7	0.495	0.990	
Beryllium	ND	0.248	0.990	
Cadmium	ND	0.495	0.990	
Chromium	3.05	0.248	0.990	
Cobalt	0.886	0.248	0.990	
Copper	2.76	0.495	0.990	
Lead	0.864	0.495	0.990	
Molybdenum	0.591	0.248	0.990	
Nickel	0.492	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	2.52	0.248	0.990	
Zinc	10.6	0.990	0.990	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
AP-4-05-062515-DUP	**15-06-2190-3-A**	**06/25/15 12:30**	**Solid**	**ICP 7300**	**06/30/15**	**07/02/15 19:44**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	3.61	0.739	0.985	
Barium	20.0	0.493	0.985	
Beryllium	ND	0.246	0.985	
Cadmium	ND	0.493	0.985	
Chromium	2.07	0.246	0.985	
Cobalt	1.22	0.246	0.985	
Copper	3.43	0.493	0.985	
Lead	0.496	0.493	0.985	
Molybdenum	0.259	0.246	0.985	
Nickel	1.23	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	3.41	0.246	0.985	
Zinc	11.0	0.985	0.985	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
MW-02-10-062515	**15-06-2190-4-B**	**06/25/15 17:31**	**Solid**	**ICP 7300**	**06/30/15**	**07/02/15 19:50**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	0.770	0.746	0.995	
Barium	33.3	0.498	0.995	
Beryllium	ND	0.249	0.995	
Cadmium	ND	0.498	0.995	
Chromium	1.00	0.249	0.995	
Cobalt	2.57	0.249	0.995	
Copper	5.19	0.498	0.995	
Lead	0.648	0.498	0.995	
Molybdenum	ND	0.249	0.995	
Nickel	0.841	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	10.3	0.249	0.995	
Zinc	33.0	0.995	0.995	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
Soil Profile	**15-06-2190-5-A**	**06/26/15 11:30**	**Solid**	**ICP 7300**	**06/30/15**	**07/02/15 19:52**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	1.38	0.728	0.971	
Barium	22.8	0.485	0.971	
Beryllium	ND	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	1.92	0.243	0.971	
Cobalt	1.38	0.243	0.971	
Copper	2.83	0.485	0.971	
Lead	0.895	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	1.14	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	4.23	0.243	0.971	
Zinc	15.5	0.971	0.971	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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	**097-01-002-21365**	**N/A**	**Solid**	**ICP 7300**	**06/30/15**	**07/02/15 20:31**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	ND	0.758	1.01	
Barium	ND	0.505	1.01	
Beryllium	ND	0.253	1.01	
Cadmium	ND	0.505	1.01	
Chromium	ND	0.253	1.01	
Cobalt	ND	0.253	1.01	
Copper	ND	0.505	1.01	
Lead	ND	0.505	1.01	
Molybdenum	ND	0.253	1.01	
Nickel	ND	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	ND	0.253	1.01	
Zinc	ND	1.01	1.01	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
MW-04-05-062415	**15-06-2190-1-B**	**06/24/15 12:34**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:53**	**150630L11**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AP-4-05-062515	**15-06-2190-2-B**	**06/25/15 12:30**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:55**	**150630L11**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0862	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AP-4-05-062515-DUP	**15-06-2190-3-A**	**06/25/15 12:30**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:57**	**150630L11**

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
MW-02-10-062515	**15-06-2190-4-B**	**06/25/15 17:31**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 15:00**	**150630L11**

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
Soil Profile	**15-06-2190-5-A**	**06/26/15 11:30**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 15:06**	**150630L11**

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
Method Blank	**099-16-272-1417**	**N/A**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:24**	**150630L11**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.0833	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

Date Received: 06/29/15
Work Order: 15-06-2190
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
MW-04-05-062415	**15-06-2190-1-A**	**06/24/15 12:34**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 21:28**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 3 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	76	25-120	
Nitrobenzene-d5	67	33-123	
p-Terphenyl-d14	77	27-159	
Phenol-d6	78	26-122	
2,4,6-Tribromophenol	82	18-138	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
AP-4-05-062515	**15-06-2190-2-A**	**06/25/15 12:30**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 21:46**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	75	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 6 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	77	25-120	
Nitrobenzene-d5	69	33-123	
p-Terphenyl-d14	81	27-159	
Phenol-d6	79	26-122	
2,4,6-Tribromophenol	84	18-138	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
AP-4-05-062515-DUP	**15-06-2190-3-A**	**06/25/15 12:30**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 22:04**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	87	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 9 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	91	25-120	
Nitrobenzene-d5	79	33-123	
p-Terphenyl-d14	92	27-159	
Phenol-d6	93	26-122	
2,4,6-Tribromophenol	88	18-138	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
MW-02-10-062515	**15-06-2190-4-A**	**06/25/15 17:31**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 22:22**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 11 of 15

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 12 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	70	25-120	
Nitrobenzene-d5	63	33-123	
p-Terphenyl-d14	71	27-159	
Phenol-d6	72	26-122	
2,4,6-Tribromophenol	72	18-138	

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

Date Received: 06/29/15
Work Order: 15-06-2190
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
Method Blank	**099-12-549-3330**	**N/A**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 15:25**	**150630L02**

Parameter	Result	RL	DF	Qualifiers
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	
Diethyl Phthalate	ND	0.50	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: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	DF	Qualifiers
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	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: CG Roxane		Page 15 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	80	25-120	
Nitrobenzene-d5	75	33-123	
p-Terphenyl-d14	79	27-159	
Phenol-d6	81	26-122	
2,4,6-Tribromophenol	75	18-138	

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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
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
MW-04-05-062415	**15-06-2190-1-D**	**06/24/15 12:34**	**Solid**	**GC/MS BB**	**06/24/15**	**06/30/15 14:52**	**150630L008**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	51	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.1	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	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	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.1	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	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	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	5.1	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 2 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	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	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	77-120	
Dibromofluoromethane	103	80-123	
1,2-Dichloroethane-d4	100	79-139	
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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
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
AP-4-05-062515	**15-06-2190-2-D**	**06/25/15 12:30**	**Solid**	**GC/MS BB**	**06/25/15**	**06/30/15 15:20**	**150630L008**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	61	1.00	
Benzene	ND	1.2	1.00	
Bromobenzene	ND	1.2	1.00	
Bromochloromethane	ND	2.4	1.00	
Bromodichloromethane	ND	1.2	1.00	
Bromoform	ND	6.1	1.00	
Bromomethane	ND	24	1.00	
2-Butanone	ND	24	1.00	
n-Butylbenzene	ND	1.2	1.00	
sec-Butylbenzene	ND	1.2	1.00	
tert-Butylbenzene	ND	1.2	1.00	
Carbon Disulfide	ND	12	1.00	
Carbon Tetrachloride	ND	1.2	1.00	
Chlorobenzene	ND	1.2	1.00	
Chloroethane	ND	2.4	1.00	
Chloroform	ND	1.2	1.00	
Chloromethane	ND	24	1.00	
2-Chlorotoluene	ND	1.2	1.00	
4-Chlorotoluene	ND	1.2	1.00	
Dibromochloromethane	ND	2.4	1.00	
1,2-Dibromo-3-Chloropropane	ND	6.1	1.00	
1,2-Dibromoethane	ND	1.2	1.00	
Dibromomethane	ND	1.2	1.00	
1,2-Dichlorobenzene	ND	1.2	1.00	
1,3-Dichlorobenzene	ND	1.2	1.00	
1,4-Dichlorobenzene	ND	1.2	1.00	
Dichlorodifluoromethane	ND	2.4	1.00	
1,1-Dichloroethane	ND	1.2	1.00	
1,2-Dichloroethane	ND	1.2	1.00	
1,1-Dichloroethene	ND	1.2	1.00	
c-1,2-Dichloroethene	ND	1.2	1.00	
t-1,2-Dichloroethene	ND	1.2	1.00	
1,2-Dichloropropane	ND	1.2	1.00	
1,3-Dichloropropane	ND	1.2	1.00	
2,2-Dichloropropane	ND	6.1	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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.4	1.00	
c-1,3-Dichloropropene	ND	1.2	1.00	
t-1,3-Dichloropropene	ND	2.4	1.00	
Ethylbenzene	ND	1.2	1.00	
2-Hexanone	ND	24	1.00	
Isopropylbenzene	ND	1.2	1.00	
p-Isopropyltoluene	ND	1.2	1.00	
Methylene Chloride	ND	12	1.00	
4-Methyl-2-Pentanone	ND	24	1.00	
Naphthalene	ND	12	1.00	
n-Propylbenzene	ND	2.4	1.00	
Styrene	ND	1.2	1.00	
1,1,1,2-Tetrachloroethane	ND	1.2	1.00	
1,1,2,2-Tetrachloroethane	ND	2.4	1.00	
Tetrachloroethene	ND	1.2	1.00	
Toluene	ND	1.2	1.00	
1,2,3-Trichlorobenzene	ND	2.4	1.00	
1,2,4-Trichlorobenzene	ND	2.4	1.00	
1,1,1-Trichloroethane	ND	1.2	1.00	
1,1,2-Trichloroethane	ND	1.2	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12	1.00	
Trichloroethene	ND	2.4	1.00	
Trichlorofluoromethane	ND	12	1.00	
1,2,3-Trichloropropane	ND	2.4	1.00	
1,2,4-Trimethylbenzene	ND	2.4	1.00	
1,3,5-Trimethylbenzene	ND	2.4	1.00	
Vinyl Acetate	ND	12	1.00	
Vinyl Chloride	ND	1.2	1.00	
p/m-Xylene	ND	2.4	1.00	
o-Xylene	ND	1.2	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.4	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	77-120	
Dibromofluoromethane	102	80-123	
1,2-Dichloroethane-d4	99	79-139	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: CG Roxane			Page 5 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AP-4-05-062515-DUP	**15-06-2190-3-C**	**06/25/15 12:30**	**Solid**	**GC/MS BB**	**06/25/15**	**06/30/15 15:49**	**150630L008**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	43	1.00	
Benzene	ND	0.85	1.00	
Bromobenzene	ND	0.85	1.00	
Bromochloromethane	ND	1.7	1.00	
Bromodichloromethane	ND	0.85	1.00	
Bromoform	ND	4.3	1.00	
Bromomethane	ND	17	1.00	
2-Butanone	ND	17	1.00	
n-Butylbenzene	ND	0.85	1.00	
sec-Butylbenzene	ND	0.85	1.00	
tert-Butylbenzene	ND	0.85	1.00	
Carbon Disulfide	ND	8.5	1.00	
Carbon Tetrachloride	ND	0.85	1.00	
Chlorobenzene	ND	0.85	1.00	
Chloroethane	ND	1.7	1.00	
Chloroform	ND	0.85	1.00	
Chloromethane	ND	17	1.00	
2-Chlorotoluene	ND	0.85	1.00	
4-Chlorotoluene	ND	0.85	1.00	
Dibromochloromethane	ND	1.7	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.00	
1,2-Dibromoethane	ND	0.85	1.00	
Dibromomethane	ND	0.85	1.00	
1,2-Dichlorobenzene	ND	0.85	1.00	
1,3-Dichlorobenzene	ND	0.85	1.00	
1,4-Dichlorobenzene	ND	0.85	1.00	
Dichlorodifluoromethane	ND	1.7	1.00	
1,1-Dichloroethane	ND	0.85	1.00	
1,2-Dichloroethane	ND	0.85	1.00	
1,1-Dichloroethene	ND	0.85	1.00	
c-1,2-Dichloroethene	ND	0.85	1.00	
t-1,2-Dichloroethene	ND	0.85	1.00	
1,2-Dichloropropane	ND	0.85	1.00	
1,3-Dichloropropane	ND	0.85	1.00	
2,2-Dichloropropane	ND	4.3	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 6 of 10

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.7	1.00	
c-1,3-Dichloropropene	ND	0.85	1.00	
t-1,3-Dichloropropene	ND	1.7	1.00	
Ethylbenzene	ND	0.85	1.00	
2-Hexanone	ND	17	1.00	
Isopropylbenzene	ND	0.85	1.00	
p-Isopropyltoluene	ND	0.85	1.00	
Methylene Chloride	ND	8.5	1.00	
4-Methyl-2-Pentanone	ND	17	1.00	
Naphthalene	ND	8.5	1.00	
n-Propylbenzene	ND	1.7	1.00	
Styrene	ND	0.85	1.00	
1,1,1,2-Tetrachloroethane	ND	0.85	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	1.00	
Tetrachloroethene	ND	0.85	1.00	
Toluene	ND	0.85	1.00	
1,2,3-Trichlorobenzene	ND	1.7	1.00	
1,2,4-Trichlorobenzene	ND	1.7	1.00	
1,1,1-Trichloroethane	ND	0.85	1.00	
1,1,2-Trichloroethane	ND	0.85	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.5	1.00	
Trichloroethene	ND	1.7	1.00	
Trichlorofluoromethane	ND	8.5	1.00	
1,2,3-Trichloropropane	ND	1.7	1.00	
1,2,4-Trimethylbenzene	ND	1.7	1.00	
1,3,5-Trimethylbenzene	ND	1.7	1.00	
Vinyl Acetate	ND	8.5	1.00	
Vinyl Chloride	ND	0.85	1.00	
p/m-Xylene	ND	1.7	1.00	
o-Xylene	ND	0.85	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	77-120	
Dibromofluoromethane	102	80-123	
1,2-Dichloroethane-d4	96	79-139	
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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
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
MW-02-10-062515	**15-06-2190-4-D**	**06/25/15 17:31**	**Solid**	**GC/MS BB**	**06/25/15**	**06/30/15 16:18**	**150630L008**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	57	1.00	
Benzene	ND	1.1	1.00	
Bromobenzene	ND	1.1	1.00	
Bromochloromethane	ND	2.3	1.00	
Bromodichloromethane	ND	1.1	1.00	
Bromoform	ND	5.7	1.00	
Bromomethane	ND	23	1.00	
2-Butanone	ND	23	1.00	
n-Butylbenzene	ND	1.1	1.00	
sec-Butylbenzene	ND	1.1	1.00	
tert-Butylbenzene	ND	1.1	1.00	
Carbon Disulfide	ND	11	1.00	
Carbon Tetrachloride	ND	1.1	1.00	
Chlorobenzene	ND	1.1	1.00	
Chloroethane	ND	2.3	1.00	
Chloroform	ND	1.1	1.00	
Chloromethane	ND	23	1.00	
2-Chlorotoluene	ND	1.1	1.00	
4-Chlorotoluene	ND	1.1	1.00	
Dibromochloromethane	ND	2.3	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.7	1.00	
1,2-Dibromoethane	ND	1.1	1.00	
Dibromomethane	ND	1.1	1.00	
1,2-Dichlorobenzene	ND	1.1	1.00	
1,3-Dichlorobenzene	ND	1.1	1.00	
1,4-Dichlorobenzene	ND	1.1	1.00	
Dichlorodifluoromethane	ND	2.3	1.00	
1,1-Dichloroethane	ND	1.1	1.00	
1,2-Dichloroethane	ND	1.1	1.00	
1,1-Dichloroethene	ND	1.1	1.00	
c-1,2-Dichloroethene	ND	1.1	1.00	
t-1,2-Dichloroethene	ND	1.1	1.00	
1,2-Dichloropropane	ND	1.1	1.00	
1,3-Dichloropropane	ND	1.1	1.00	
2,2-Dichloropropane	ND	5.7	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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.3	1.00	
c-1,3-Dichloropropene	ND	1.1	1.00	
t-1,3-Dichloropropene	ND	2.3	1.00	
Ethylbenzene	ND	1.1	1.00	
2-Hexanone	ND	23	1.00	
Isopropylbenzene	ND	1.1	1.00	
p-Isopropyltoluene	ND	1.1	1.00	
Methylene Chloride	ND	11	1.00	
4-Methyl-2-Pentanone	ND	23	1.00	
Naphthalene	ND	11	1.00	
n-Propylbenzene	ND	2.3	1.00	
Styrene	ND	1.1	1.00	
1,1,1,2-Tetrachloroethane	ND	1.1	1.00	
1,1,2,2-Tetrachloroethane	ND	2.3	1.00	
Tetrachloroethene	ND	1.1	1.00	
Toluene	ND	1.1	1.00	
1,2,3-Trichlorobenzene	ND	2.3	1.00	
1,2,4-Trichlorobenzene	ND	2.3	1.00	
1,1,1-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloroethane	ND	1.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
Trichloroethene	ND	2.3	1.00	
Trichlorofluoromethane	ND	11	1.00	
1,2,3-Trichloropropane	ND	2.3	1.00	
1,2,4-Trimethylbenzene	ND	2.3	1.00	
1,3,5-Trimethylbenzene	ND	2.3	1.00	
Vinyl Acetate	ND	11	1.00	
Vinyl Chloride	ND	1.1	1.00	
p/m-Xylene	ND	2.3	1.00	
o-Xylene	ND	1.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	77-120	
Dibromofluoromethane	101	80-123	
1,2-Dichloroethane-d4	98	79-139	
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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
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	**099-14-312-493**	**N/A**	**Solid**	**GC/MS BB**	**06/30/15**	**06/30/15 13:54**	**150630L008**

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	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	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	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	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	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	5.0	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: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	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	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	77-120	
Dibromofluoromethane	102	80-123	
1,2-Dichloroethane-d4	94	79-139	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/kg
Project: CG Roxane			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Soil Profile	**15-06-2190-5-A**	**06/26/15 11:30**	**Solid**	**GC/MS OO**	**06/29/15**	**06/30/15 20:36**	**150630L007**

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

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/kg
Project: CG Roxane		Page 2 of 4

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	96	60-132	
Dibromofluoromethane	108	63-141	
1,2-Dichloroethane-d4	114	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

Date Received: 06/29/15
Work Order: 15-06-2190
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	**099-14-314-468**	**N/A**	**Solid**	**GC/MS OO**	**06/30/15**	**06/30/15 13:52**	**150630L007**

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

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2190
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	98	60-132	
Dibromofluoromethane	110	63-141	
1,2-Dichloroethane-d4	112	62-146	
Toluene-d8	99	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

Date Received: 06/29/15
Work Order: 15-06-2190

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-04-05-062415	**15-06-2190-1**	**06/24/15 12:34**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.62	0.01	1.00	BU	pH units	06/30/15	06/30/15	EPA 9045D
Alkalinity, Total (as CaCO3)	310	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	3690	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	97	25	50.0		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Total Phosphate	300	75	50.0		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Ammonia (as N)	14	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	ND	0.50	1.00		mg/kg	06/30/15	07/01/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00	BV,BU	mg/kg	06/29/15	06/29/15	SM 5540C (M)
Total Nitrogen	ND	0.50	1.00		mg/kg	N/A	07/07/15	Total Nitrogen by Calc

AP-4-05-062515	15-06-2190-2	06/25/15 12:30	Solid

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.74	0.01	1.00	BU	pH units	06/30/15	06/30/15	EPA 9045D
Alkalinity, Total (as CaCO3)	500	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	5000	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	140	25	50.0		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Total Phosphate	420	75	50.0		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Ammonia (as N)	14	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.54	0.50	1.00		mg/kg	07/02/15	07/02/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00	BV,BU	mg/kg	06/29/15	06/29/15	SM 5540C (M)
Total Nitrogen	0.54	0.50	1.00		mg/kg	N/A	07/07/15	Total Nitrogen by Calc

AP-4-05-062515-DUP	15-06-2190-3	06/25/15 12:30	Solid

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.47	0.01	1.00	BU	pH units	06/30/15	06/30/15	EPA 9045D
Alkalinity, Total (as CaCO3)	540	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	7000	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	140	25	50.0		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Total Phosphate	440	75	50.0		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	0.61	0.50	1.00		mg/kg	07/02/15	07/02/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00	BV,BU	mg/kg	06/29/15	06/29/15	SM 5540C (M)
Total Nitrogen	0.61	0.50	1.00		mg/kg	N/A	07/07/15	Total Nitrogen by Calc

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

Date Received: 06/29/15
Work Order: 15-06-2190

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-02-10-062515	**15-06-2190-4**	**06/25/15 17:31**	**Solid**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
pH	8.11	0.01	1.00	BU	pH units	06/30/15	06/30/15	EPA 9045D
Alkalinity, Total (as CaCO3)	100	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	9430	10.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	63	50	5.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	260	50	100		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Total Phosphate	790	150	100		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Ammonia (as N)	11	10	2.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	1.3	0.50	1.00		mg/kg	06/30/15	07/01/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00	BV,BU	mg/kg	06/29/15	06/29/15	SM 5540C (M)
Total Nitrogen	64	0.50	1.00		mg/kg	N/A	07/07/15	Total Nitrogen by Calc

Method Blank						**N/A**		**Solid**
Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 2320B M
Solids, Total Dissolved	ND	1.0	1.00		mg/kg	06/30/15	06/30/15	SM 2540 C (M)
Total Kjeldahl Nitrogen	ND	10	1.00		mg/kg	06/30/15	06/30/15	SM 4500 N Org B (M)
Phosphorus, Total	ND	0.50	1.00		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Total Phosphate	ND	1.5	1.00		mg/kg	06/30/15	06/30/15	SM 4500 P B/E (M)
Ammonia (as N)	ND	5.0	1.00		mg/kg	06/30/15	06/30/15	SM 4500-NH3 B/C (M)
Nitrate-Nitrite (as N)	ND	0.50	1.00		mg/kg	06/30/15	07/01/15	SM 4500-NO3 E (M)
Nitrate-Nitrite (as N)	ND	0.50	1.00		mg/kg	07/02/15	07/02/15	SM 4500-NO3 E (M)
MBAS	ND	1.0	1.00		mg/kg	06/29/15	06/29/15	SM 5540C (M)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2136-1	**Sample**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 17:48**	**150630S01P**
15-06-2136-1	**Matrix Spike**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 17:15**	**150630S01P**
15-06-2136-1	**Matrix Spike Duplicate**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 17:32**	**150630S01P**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	ND	500.0	497.6	100	479.4	96	80-120	4	0-20	
Sulfate	105.0	500.0	528.8	85	528.2	85	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 2 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-04-05-062415	**Sample**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630TPS2**
MW-04-05-062415	**Matrix Spike**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630TPS2**
MW-04-05-062415	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630TPS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	96.68	100.0	200.0	103	203.5	107	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E (M)
Project: CG Roxane			Page 3 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-04-05-062415	**Sample**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630PO4S2**
MW-04-05-062415	**Matrix Spike**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630PO4S2**
MW-04-05-062415	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630PO4S2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	295.8	305.0	612.5	104	622.5	107	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E (M)
Project: CG Roxane			Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-04-05-062415	**Sample**	**Solid**	**UV 7**	**06/30/15**	**07/01/15 18:29**	**F0701NO3S4**
MW-04-05-062415	**Matrix Spike**	**Solid**	**UV 7**	**06/30/15**	**07/01/15 18:29**	**F0701NO3S4**
MW-04-05-062415	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**06/30/15**	**07/01/15 18:29**	**F0701NO3S4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	2.500	2.645	106	2.640	106	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E (M)
Project: CG Roxane			Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
AP-4-05-062515-DUP	**Sample**	**Solid**	**UV 7**	**07/02/15**	**07/02/15 17:47**	**F0702NO3S2**
AP-4-05-062515-DUP	**Matrix Spike**	**Solid**	**UV 7**	**07/02/15**	**07/02/15 17:47**	**F0702NO3S2**
AP-4-05-062515-DUP	**Matrix Spike Duplicate**	**Solid**	**UV 7**	**07/02/15**	**07/02/15 17:47**	**F0702NO3S2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.6084	2.500	3.120	100	3.175	103	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 6 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-02-10-062515	**Sample**	**Solid**	**UV 9**	**06/29/15**	**06/29/15 18:39**	**F0629SURS2**
MW-02-10-062515	**Matrix Spike**	**Solid**	**UV 9**	**06/29/15**	**06/29/15 18:39**	**F0629SURS2**
MW-02-10-062515	**Matrix Spike Duplicate**	**Solid**	**UV 9**	**06/29/15**	**06/29/15 18:39**	**F0629SURS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	10.00	8.000	80	8.600	86	70-130	7	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: CG Roxane			Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2256-1	**Sample**	**Solid**	**GC 45**	**06/30/15**	**06/30/15 17:05**	**150630S02**
15-06-2256-1	**Matrix Spike**	**Solid**	**GC 45**	**06/30/15**	**06/30/15 16:29**	**150630S02**
15-06-2256-1	**Matrix Spike Duplicate**	**Solid**	**GC 45**	**06/30/15**	**06/30/15 16:47**	**150630S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	457.6	114	453.7	113	64-130	1	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane			Page 8 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2237-7	**Sample**	**Solid**	**ICP 7300**	**06/30/15**	**07/06/15 16:09**	**150630S02**
15-06-2237-7	**Matrix Spike**	**Solid**	**ICP 7300**	**06/30/15**	**07/06/15 15:54**	**150630S02**
15-06-2237-7	**Matrix Spike Duplicate**	**Solid**	**ICP 7300**	**06/30/15**	**07/06/15 15:56**	**150630S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	5.609	22	9.588	38	50-115	52	0-20	3,4
Arsenic	2.283	25.00	26.38	96	26.14	95	75-125	1	0-20	
Barium	96.40	25.00	136.2	159	134.3	152	75-125	1	0-20	3
Beryllium	ND	25.00	25.41	102	26.06	104	75-125	3	0-20	
Cadmium	ND	25.00	24.80	99	24.95	100	75-125	1	0-20	
Chromium	28.01	25.00	54.80	107	56.91	116	75-125	4	0-20	
Cobalt	7.541	25.00	33.73	105	33.73	105	75-125	0	0-20	
Copper	9.958	25.00	36.78	107	36.18	105	75-125	2	0-20	
Lead	1.301	25.00	25.88	98	26.38	100	75-125	2	0-20	
Molybdenum	ND	25.00	20.19	81	21.35	85	75-125	6	0-20	
Nickel	8.485	25.00	34.07	102	34.32	103	75-125	1	0-20	
Selenium	ND	25.00	17.96	72	18.55	74	75-125	3	0-20	3
Silver	ND	12.50	13.23	106	13.26	106	75-125	0	0-20	
Thallium	ND	25.00	23.09	92	16.41	66	75-125	34	0-20	3,4
Vanadium	32.65	25.00	62.14	118	58.04	102	75-125	7	0-20	
Zinc	22.26	25.00	49.48	109	49.20	108	75-125	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane			Page 9 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2159-1	**Sample**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:28**	**150630S11**
15-06-2159-1	**Matrix Spike**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:31**	**150630S11**
15-06-2159-1	**Matrix Spike Duplicate**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:33**	**150630S11**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.9696	116	0.8714	104	71-137	11	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane			Page 10 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2224-3	**Sample**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 16:39**	**150630S02**
15-06-2224-3	**Matrix Spike**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 16:03**	**150630S02**
15-06-2224-3	**Matrix Spike Duplicate**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 16:21**	**150630S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	8.189	82	8.351	84	34-148	2	0-20	
Acenaphthylene	ND	10.00	8.041	80	8.167	82	53-120	2	0-20	
Butyl Benzyl Phthalate	ND	10.00	8.414	84	8.726	87	15-189	4	0-20	
4-Chloro-3-Methylphenol	ND	10.00	8.062	81	8.262	83	32-120	2	0-20	
2-Chlorophenol	ND	10.00	8.257	83	8.481	85	53-120	3	0-20	
1,4-Dichlorobenzene	ND	10.00	7.029	70	7.055	71	43-120	0	0-26	
Dimethyl Phthalate	ND	10.00	7.927	79	7.932	79	44-122	0	0-20	
2,4-Dinitrotoluene	ND	10.00	8.710	87	8.815	88	28-120	1	0-20	
Fluorene	ND	10.00	8.384	84	8.445	84	12-186	1	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	7.510	75	7.822	78	38-140	4	0-20	
Naphthalene	ND	10.00	7.730	77	7.843	78	20-140	1	0-20	
4-Nitrophenol	ND	10.00	7.418	74	7.727	77	14-128	4	0-59	
Pentachlorophenol	ND	10.00	4.802	48	5.424	54	10-124	12	0-20	
Phenol	ND	10.00	8.142	81	8.414	84	22-124	3	0-20	
Pyrene	ND	10.00	7.785	78	8.003	80	31-169	3	0-20	
1,2,4-Trichlorobenzene	ND	10.00	7.643	76	7.797	78	56-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane			Page 11 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2227-1	**Sample**	**Solid**	**GC/MS OO**	**06/30/15**	**06/30/15 14:49**	**150630S003**
15-06-2227-1	**Matrix Spike**	**Solid**	**GC/MS OO**	**06/30/15**	**06/30/15 17:13**	**150630S003**
15-06-2227-1	**Matrix Spike Duplicate**	**Solid**	**GC/MS OO**	**06/30/15**	**06/30/15 17:41**	**150630S003**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	52.23	104	55.17	110	70-130	5	0-20	
Benzene	ND	50.00	42.42	85	42.01	84	61-127	1	0-20	
Bromobenzene	ND	50.00	41.08	82	41.36	83	70-130	1	0-20	
Bromochloromethane	ND	50.00	44.90	90	44.88	90	70-130	0	0-20	
Bromodichloromethane	ND	50.00	28.22	56	26.65	53	70-130	6	0-20	3
Bromoform	ND	50.00	36.67	73	35.63	71	70-130	3	0-20	
Bromomethane	ND	50.00	35.99	72	32.22	64	70-130	11	0-20	3
2-Butanone	ND	50.00	52.62	105	46.87	94	70-130	12	0-20	
n-Butylbenzene	ND	50.00	29.04	58	30.07	60	77-123	3	0-25	3
sec-Butylbenzene	ND	50.00	29.91	60	30.86	62	70-130	3	0-20	3
tert-Butylbenzene	ND	50.00	30.28	61	30.64	61	70-130	1	0-20	3
Carbon Disulfide	ND	50.00	26.94	54	28.42	57	70-130	5	0-20	3
Carbon Tetrachloride	ND	50.00	41.67	83	42.41	85	51-135	2	0-29	
Chlorobenzene	ND	50.00	37.96	76	38.04	76	57-123	0	0-20	
Chloroethane	ND	50.00	37.66	75	41.35	83	70-130	9	0-20	
Chloroform	ND	50.00	41.18	82	41.83	84	70-130	2	0-20	
Chloromethane	ND	50.00	33.64	67	38.69	77	70-130	14	0-20	3
2-Chlorotoluene	ND	50.00	37.32	75	37.44	75	70-130	0	0-20	
4-Chlorotoluene	ND	50.00	35.57	71	35.41	71	70-130	0	0-20	
Dibromochloromethane	ND	50.00	32.05	64	30.33	61	70-130	6	0-20	3
1,2-Dibromo-3-Chloropropane	ND	50.00	5.224	10	3.792	8	70-130	32	0-20	3,4
1,2-Dibromoethane	ND	50.00	44.45	89	44.83	90	64-124	1	0-20	
Dibromomethane	ND	50.00	46.29	93	44.60	89	70-130	4	0-20	
1,2-Dichlorobenzene	ND	50.00	35.38	71	35.26	71	35-131	0	0-25	
1,3-Dichlorobenzene	ND	50.00	34.14	68	33.71	67	70-130	1	0-20	3
1,4-Dichlorobenzene	ND	50.00	33.77	68	33.42	67	70-130	1	0-20	3
Dichlorodifluoromethane	ND	50.00	26.88	54	29.17	58	70-130	8	0-20	3
1,1-Dichloroethane	ND	50.00	40.38	81	41.72	83	70-130	3	0-20	
1,2-Dichloroethane	ND	50.00	45.76	92	44.75	90	70-130	2	0-20	
1,1-Dichloroethene	ND	50.00	69.88	140	73.31	147	47-143	5	0-25	3
c-1,2-Dichloroethene	ND	50.00	47.75	96	45.29	91	70-130	5	0-20	
t-1,2-Dichloroethene	ND	50.00	41.53	83	43.01	86	70-130	4	0-20	
1,2-Dichloropropane	ND	50.00	44.98	90	45.14	90	79-115	0	0-25	
1,3-Dichloropropane	ND	50.00	46.29	93	46.54	93	70-130	1	0-20	
2,2-Dichloropropane	ND	50.00	41.71	83	41.70	83	70-130	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane		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	37.52	75	38.57	77	70-130	3	0-20	
c-1,3-Dichloropropene	ND	50.00	47.20	94	46.90	94	70-130	1	0-20	
t-1,3-Dichloropropene	ND	50.00	46.87	94	46.82	94	70-130	0	0-20	
Ethylbenzene	ND	50.00	39.74	79	40.17	80	57-129	1	0-22	
2-Hexanone	ND	50.00	43.78	88	45.29	91	70-130	3	0-20	
Isopropylbenzene	ND	50.00	37.22	74	37.63	75	70-130	1	0-20	
p-Isopropyltoluene	ND	50.00	30.23	60	30.71	61	70-130	2	0-20	3
Methylene Chloride	ND	50.00	45.05	90	45.51	91	70-130	1	0-20	
4-Methyl-2-Pentanone	ND	50.00	46.80	94	47.88	96	70-130	2	0-20	
Naphthalene	ND	50.00	34.44	69	35.66	71	70-130	3	0-20	3
n-Propylbenzene	ND	50.00	35.02	70	35.27	71	70-130	1	0-20	
Styrene	ND	50.00	42.16	84	42.16	84	70-130	0	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	36.17	72	35.37	71	70-130	2	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	0.9438	2	0.8696	2	70-130	8	0-20	3
Tetrachloroethene	ND	50.00	51.36	103	50.89	102	70-130	1	0-20	
Toluene	ND	50.00	42.25	85	42.05	84	63-123	0	0-20	
1,2,3-Trichlorobenzene	ND	50.00	29.59	59	29.35	59	70-130	1	0-20	3
1,2,4-Trichlorobenzene	ND	50.00	28.82	58	28.41	57	70-130	1	0-20	3
1,1,1-Trichloroethane	ND	50.00	42.81	86	43.09	86	70-130	1	0-20	
1,1,2-Trichloroethane	ND	50.00	8.749	17	7.181	14	70-130	20	0-20	3
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	38.18	76	39.18	78	70-130	3	0-20	
Trichloroethene	ND	50.00	80.95	162	80.41	161	44-158	1	0-20	3
1,2,3-Trichloropropane	ND	50.00	40.06	80	39.22	78	70-130	2	0-20	
1,2,4-Trimethylbenzene	ND	50.00	35.73	71	35.61	71	70-130	0	0-20	
Trichlorofluoromethane	ND	50.00	41.68	83	42.80	86	70-130	3	0-20	
1,3,5-Trimethylbenzene	ND	50.00	37.88	76	37.87	76	70-130	0	0-20	
Vinyl Acetate	ND	50.00	0.3265	1	0.8189	2	70-130	86	0-20	3,4
Vinyl Chloride	ND	50.00	35.99	72	40.49	81	49-139	12	0-47	
p/m-Xylene	ND	100.0	79.60	80	80.15	80	70-130	1	0-20	
o-Xylene	ND	50.00	39.73	79	39.85	80	70-130	0	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	44.56	89	46.76	94	57-123	5	0-21	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 9045D
Project: CG Roxane			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-04-05-062415	**Sample**	**Solid**	**PH 4**	**06/30/15 00:00**	**06/30/15 20:02**	**F0630PHD1**
MW-04-05-062415	**Sample Duplicate**	**Solid**	**PH 4**	**06/30/15 00:00**	**06/30/15 20:02**	**F0630PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	8.620	8.790	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B M
Project: CG Roxane			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1886-1	**Sample**	**Solid**	**PH1/BUR03**	**06/30/15 00:00**	**06/30/15 17:18**	**F0630ALKD3**
15-06-1886-1	**Sample Duplicate**	**Solid**	**PH1/BUR03**	**06/30/15 00:00**	**06/30/15 17:18**	**F0630ALKD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	45.00	45.00	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C (M)
Project: CG Roxane			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-02-10-062515	**Sample**	**Solid**	**N/A**	**06/30/15 00:00**	**06/30/15 17:00**	**F0630TDSD2**
MW-02-10-062515	**Sample Duplicate**	**Solid**	**N/A**	**06/30/15 00:00**	**06/30/15 17:00**	**F0630TDSD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	9433	9067	4	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B (M)
Project: CG Roxane			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-1883-1	**Sample**	**Solid**	**BUR05**	**06/30/15 00:00**	**06/30/15 14:03**	**F0630TKND1**
15-06-1883-1	**Sample Duplicate**	**Solid**	**BUR05**	**06/30/15 00:00**	**06/30/15 14:03**	**F0630TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	9800	9968	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-922-610	**LCS**	**Solid**	**IC 10**	**06/30/15**	**06/30/15 14:57**	**150630L01P**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	500.0	525.9	105	90-110	
Sulfate	500.0	515.2	103	90-110	

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: 06/29/15
Work Order: 15-06-2190
Preparation: N/A
Method: SM 4500 P B/E (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5440	**LCS**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630TPL2**
099-05-001-5440	**LCSD**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630TPL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	2.000	2.025	101	2.065	103	80-120	2	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: 06/29/15
Work Order: 15-06-2190
Preparation: N/A
Method: SM 4500 P B/E (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-274-27	**LCS**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630PO4L2**
099-14-274-27	**LCSD**	**Solid**	**UV 7**	**06/30/15**	**06/30/15 17:51**	**F0630PO4L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	6.100	6.200	102	6.300	103	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: 06/29/15
924 Anacapa Street, Suite 4A	Work Order: 15-06-2190
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NH3 B/C (M)
Project: CG Roxane	Page 4 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-812-800	**LCS**	**Solid**	**BUR05**	**06/30/15**	**06/30/15 15:00**	**F0630NH3L2**
099-12-812-800	**LCSD**	**Solid**	**BUR05**	**06/30/15**	**06/30/15 15:00**	**F0630NH3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	250.0	221.2	88	226.8	91	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

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: N/A
Method: SM 4500-NO3 E (M)

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5441	**LCS**	**Solid**	**UV 7**	**06/30/15**	**07/01/15 18:29**	**F0701NO3L4**
099-05-001-5441	**LCSD**	**Solid**	**UV 7**	**06/30/15**	**07/01/15 18:29**	**F0701NO3L4**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	2.500	2.605	104	2.635	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E (M)
Project: CG Roxane			Page 6 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-5442	**LCS**	**Solid**	**UV 7**	**07/02/15**	**07/02/15 17:47**	**F0702NO3L2**
099-05-001-5442	**LCSD**	**Solid**	**UV 7**	**07/02/15**	**07/02/15 17:47**	**F0702NO3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	2.500	2.400	96	2.395	96	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C (M)
Project: CG Roxane			Page 7 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-027-44	**LCS**	**Solid**	**UV 9**	**06/29/15**	**06/29/15 18:39**	**F0629SURL2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	10.00	9.000	90	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: CG Roxane			Page 8 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-1651	**LCS**	**Solid**	**GC 45**	**06/30/15**	**06/30/15 16:11**	**150630B02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	457.8	114	75-123	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3050B
		Method:	EPA 6010B
Project: CG Roxane			Page 9 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-21365	**LCS**	**Solid**	**ICP 7300**	**06/30/15**	**07/07/15 15:23**	**150630L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	22.49	90	80-120	73-127	
Arsenic	25.00	22.38	90	80-120	73-127	
Barium	25.00	24.98	100	80-120	73-127	
Beryllium	25.00	23.65	95	80-120	73-127	
Cadmium	25.00	24.33	97	80-120	73-127	
Chromium	25.00	25.20	101	80-120	73-127	
Cobalt	25.00	24.99	100	80-120	73-127	
Copper	25.00	24.55	98	80-120	73-127	
Lead	25.00	24.40	98	80-120	73-127	
Molybdenum	25.00	23.50	94	80-120	73-127	
Nickel	25.00	25.16	101	80-120	73-127	
Selenium	25.00	22.34	89	80-120	73-127	
Silver	12.50	12.22	98	80-120	73-127	
Thallium	25.00	25.73	103	80-120	73-127	
Vanadium	25.00	24.27	97	80-120	73-127	
Zinc	25.00	23.70	95	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: CG Roxane			Page 10 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-1417	**LCS**	**Solid**	**Mercury 05**	**06/30/15**	**07/01/15 14:26**	**150630L11**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.9128	109	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 3545
		Method:	EPA 8270C
Project: CG Roxane			Page 11 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-549-3330	**LCS**	**Solid**	**GC/MS CCC**	**06/30/15**	**07/01/15 15:43**	**150630L02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acenaphthene	10.00	8.453	85	51-123	39-135	
Acenaphthylene	10.00	8.365	84	52-120	41-131	
Butyl Benzyl Phthalate	10.00	8.919	89	43-139	27-155	
4-Chloro-3-Methylphenol	10.00	8.309	83	55-121	44-132	
2-Chlorophenol	10.00	8.633	86	58-124	47-135	
1,4-Dichlorobenzene	10.00	7.568	76	42-132	27-147	
Dimethyl Phthalate	10.00	8.259	83	51-123	39-135	
2,4-Dinitrotoluene	10.00	8.964	90	51-129	38-142	
Fluorene	10.00	8.603	86	54-126	42-138	
N-Nitroso-di-n-propylamine	10.00	7.936	79	40-136	24-152	
Naphthalene	10.00	8.198	82	32-146	13-165	
4-Nitrophenol	10.00	6.710	67	24-126	7-143	
Pentachlorophenol	10.00	6.205	62	23-131	5-149	
Phenol	10.00	8.444	84	40-130	25-145	
Pyrene	10.00	8.280	83	47-143	31-159	
1,2,4-Trichlorobenzene	10.00	8.147	81	45-129	31-143	

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/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2190
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-493	**LCS**	**Solid**	**GC/MS BB**	**06/30/15**	**06/30/15 12:21**	**150630L008**
099-14-312-493	**LCSD**	**Solid**	**GC/MS BB**	**06/30/15**	**06/30/15 12:49**	**150630L008**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	54.52	109	49.00	98	30-150	10-170	11	0-20	
Benzene	50.00	44.75	89	43.18	86	79-120	72-127	4	0-20	
Bromobenzene	50.00	47.86	96	45.51	91	80-120	73-127	5	0-20	
Bromochloromethane	50.00	46.57	93	44.93	90	80-120	73-127	4	0-20	
Bromodichloromethane	50.00	48.62	97	45.67	91	73-127	64-136	6	0-20	
Bromoform	50.00	46.22	92	45.21	90	55-133	42-146	2	0-20	
Bromomethane	50.00	41.61	83	35.96	72	36-144	18-162	15	0-20	
2-Butanone	50.00	41.28	83	42.31	85	56-176	36-196	2	0-20	
n-Butylbenzene	50.00	47.53	95	44.51	89	78-126	70-134	7	0-20	
sec-Butylbenzene	50.00	46.35	93	43.49	87	79-127	71-135	6	0-20	
tert-Butylbenzene	50.00	46.94	94	44.61	89	80-128	72-136	5	0-20	
Carbon Disulfide	50.00	31.11	62	30.29	61	53-125	41-137	3	0-20	
Carbon Tetrachloride	50.00	39.13	78	37.82	76	58-142	44-156	3	0-20	
Chlorobenzene	50.00	46.73	93	44.08	88	80-120	73-127	6	0-20	
Chloroethane	50.00	52.81	106	51.85	104	60-120	50-130	2	0-20	
Chloroform	50.00	47.83	96	46.22	92	80-120	73-127	3	0-20	
Chloromethane	50.00	46.74	93	44.28	89	50-122	38-134	5	0-20	
2-Chlorotoluene	50.00	47.71	95	45.00	90	80-125	72-132	6	0-20	
4-Chlorotoluene	50.00	48.62	97	45.29	91	80-120	73-127	7	0-20	
Dibromochloromethane	50.00	47.48	95	45.14	90	70-130	60-140	5	0-20	
1,2-Dibromo-3-Chloropropane	50.00	46.37	93	46.59	93	54-132	41-145	0	0-20	
1,2-Dibromoethane	50.00	47.21	94	45.74	91	80-120	73-127	3	0-20	
Dibromomethane	50.00	47.91	96	46.68	93	80-122	73-129	3	0-20	
1,2-Dichlorobenzene	50.00	47.72	95	44.89	90	80-120	73-127	6	0-20	
1,3-Dichlorobenzene	50.00	47.52	95	44.68	89	80-120	73-127	6	0-20	
1,4-Dichlorobenzene	50.00	46.87	94	43.56	87	80-120	73-127	7	0-20	
Dichlorodifluoromethane	50.00	72.38	145	69.45	139	32-158	11-179	4	0-20	
1,1-Dichloroethane	50.00	39.64	79	38.33	77	74-120	66-128	3	0-20	
1,2-Dichloroethane	50.00	41.34	83	40.33	81	79-121	72-128	2	0-20	
1,1-Dichloroethene	50.00	35.06	70	33.27	67	71-125	62-134	5	0-20	ME
c-1,2-Dichloroethene	50.00	44.88	90	43.34	87	80-123	73-130	3	0-20	
t-1,2-Dichloroethene	50.00	41.36	83	39.31	79	80-120	73-127	5	0-20	ME
1,2-Dichloropropane	50.00	40.08	80	38.48	77	77-120	70-127	4	0-20	
1,3-Dichloropropane	50.00	47.29	95	45.42	91	80-120	73-127	4	0-20	
2,2-Dichloropropane	50.00	41.70	83	39.86	80	58-142	44-156	5	0-20	
1,1-Dichloropropene	50.00	41.09	82	38.75	78	69-120	60-128	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: CG Roxane		Page 13 of 15

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	49.66	99	47.60	95	74-128	65-137	4	0-20	
t-1,3-Dichloropropene	50.00	51.33	103	49.20	98	66-120	57-129	4	0-20	
Ethylbenzene	50.00	46.99	94	43.74	87	80-120	73-127	7	0-20	
2-Hexanone	50.00	40.87	82	40.28	81	67-151	53-165	1	0-20	
Isopropylbenzene	50.00	48.32	97	45.11	90	80-129	72-137	7	0-20	
p-Isopropyltoluene	50.00	46.65	93	43.60	87	80-122	73-129	7	0-20	
Methylene Chloride	50.00	46.10	92	44.25	88	72-120	64-128	4	0-20	
4-Methyl-2-Pentanone	50.00	39.31	79	40.35	81	72-126	63-135	3	0-20	
Naphthalene	50.00	48.90	98	48.53	97	64-124	54-134	1	0-20	
n-Propylbenzene	50.00	50.95	102	47.35	95	80-122	73-129	7	0-20	
Styrene	50.00	46.72	93	43.60	87	80-123	73-130	7	0-20	
1,1,1,2-Tetrachloroethane	50.00	47.15	94	44.82	90	73-133	63-143	5	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.51	97	47.38	95	77-120	70-127	2	0-20	
Tetrachloroethene	50.00	40.66	81	38.29	77	75-123	67-131	6	0-20	
Toluene	50.00	45.40	91	43.07	86	80-120	73-127	5	0-20	
1,2,3-Trichlorobenzene	50.00	50.73	101	48.52	97	73-127	64-136	4	0-20	
1,2,4-Trichlorobenzene	50.00	52.83	106	49.49	99	74-128	65-137	7	0-20	
1,1,1-Trichloroethane	50.00	43.64	87	42.04	84	71-131	61-141	4	0-20	
1,1,2-Trichloroethane	50.00	48.91	98	46.62	93	80-120	73-127	5	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	45.21	90	42.70	85	77-125	69-133	6	0-20	
Trichloroethene	50.00	44.97	90	42.75	85	80-120	73-127	5	0-20	
Trichlorofluoromethane	50.00	57.88	116	54.74	109	70-136	59-147	6	0-20	
1,2,3-Trichloropropane	50.00	47.30	95	46.51	93	60-120	50-130	2	0-20	
1,2,4-Trimethylbenzene	50.00	46.12	92	43.35	87	75-123	67-131	6	0-20	
1,3,5-Trimethylbenzene	50.00	49.05	98	45.55	91	80-123	73-130	7	0-20	
Vinyl Acetate	50.00	43.92	88	44.66	89	51-159	33-177	2	0-20	
Vinyl Chloride	50.00	50.61	101	48.92	98	68-120	59-129	3	0-20	
p/m-Xylene	100.0	96.71	97	90.84	91	80-122	73-129	6	0-20	
o-Xylene	50.00	47.26	95	43.89	88	79-127	71-135	7	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	43.49	87	42.37	85	64-124	54-134	3	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 2
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2190
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane			Page 14 of 15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-314-468	**LCS**	**Solid**	**GC/MS OO**	**06/30/15**	**06/30/15 12:50**	**150630L007**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	47.66	95	70-130	60-140	
Benzene	50.00	49.20	98	78-120	71-127	
Bromobenzene	50.00	50.68	101	70-130	60-140	
Bromochloromethane	50.00	47.65	95	70-130	60-140	
Bromodichloromethane	50.00	50.13	100	70-130	60-140	
Bromoform	50.00	47.06	94	70-130	60-140	
Bromomethane	50.00	37.39	75	70-130	60-140	
2-Butanone	50.00	46.66	93	70-130	60-140	
n-Butylbenzene	50.00	53.12	106	77-123	69-131	
sec-Butylbenzene	50.00	50.32	101	70-130	60-140	
tert-Butylbenzene	50.00	49.55	99	70-130	60-140	
Carbon Disulfide	50.00	41.37	83	70-130	60-140	
Carbon Tetrachloride	50.00	53.37	107	49-139	34-154	
Chlorobenzene	50.00	46.28	93	79-120	72-127	
Chloroethane	50.00	44.06	88	70-130	60-140	
Chloroform	50.00	48.28	97	70-130	60-140	
Chloromethane	50.00	41.08	82	70-130	60-140	
2-Chlorotoluene	50.00	49.19	98	70-130	60-140	
4-Chlorotoluene	50.00	47.94	96	70-130	60-140	
Dibromochloromethane	50.00	51.07	102	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	48.92	98	70-130	60-140	
1,2-Dibromoethane	50.00	49.10	98	70-130	60-140	
Dibromomethane	50.00	47.79	96	70-130	60-140	
1,2-Dichlorobenzene	50.00	46.16	92	75-120	68-128	
1,3-Dichlorobenzene	50.00	46.98	94	70-130	60-140	
1,4-Dichlorobenzene	50.00	45.43	91	70-130	60-140	
Dichlorodifluoromethane	50.00	32.84	66	70-130	60-140	ME
1,1-Dichloroethane	50.00	47.10	94	70-130	60-140	
1,2-Dichloroethane	50.00	49.27	99	70-130	60-140	
1,1-Dichloroethene	50.00	47.38	95	74-122	66-130	
c-1,2-Dichloroethene	50.00	50.31	101	70-130	60-140	
t-1,2-Dichloroethene	50.00	49.73	99	70-130	60-140	
1,2-Dichloropropane	50.00	49.84	100	79-115	73-121	
1,3-Dichloropropane	50.00	50.78	102	70-130	60-140	
2,2-Dichloropropane	50.00	53.37	107	70-130	60-140	
1,1-Dichloropropene	50.00	46.39	93	70-130	60-140	
c-1,3-Dichloropropene	50.00	57.92	116	70-130	60-140	
t-1,3-Dichloropropene	50.00	56.66	113	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2190
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: CG Roxane		Page 15 of 15

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	51.17	102	76-120	69-127	
2-Hexanone	50.00	49.96	100	70-130	60-140	
Isopropylbenzene	50.00	52.15	104	70-130	60-140	
p-Isopropyltoluene	50.00	51.51	103	70-130	60-140	
Methylene Chloride	50.00	49.48	99	70-130	60-140	
4-Methyl-2-Pentanone	50.00	49.27	99	70-130	60-140	
Naphthalene	50.00	43.54	87	70-130	60-140	
n-Propylbenzene	50.00	50.28	101	70-130	60-140	
Styrene	50.00	52.24	104	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	52.75	106	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	50.28	101	70-130	60-140	
Tetrachloroethene	50.00	43.23	86	70-130	60-140	
Toluene	50.00	49.97	100	77-120	70-127	
1,2,3-Trichlorobenzene	50.00	48.46	97	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	48.22	96	70-130	60-140	
1,1,1-Trichloroethane	50.00	51.68	103	70-130	60-140	
1,1,2-Trichloroethane	50.00	48.55	97	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.40	95	70-130	60-140	
Trichloroethene	50.00	49.69	99	70-130	60-140	
1,2,3-Trichloropropane	50.00	50.33	101	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	50.99	102	70-130	60-140	
Trichlorofluoromethane	50.00	48.68	97	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	54.18	108	70-130	60-140	
Vinyl Acetate	50.00	61.65	123	70-130	60-140	
Vinyl Chloride	50.00	43.03	86	68-122	59-131	
p/m-Xylene	100.0	103.2	103	70-130	60-140	
o-Xylene	50.00	50.35	101	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	47.13	94	77-120	70-127	

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

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-06-2190 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 300.0	N/A	606	IC 10	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	682	GC 45	1
EPA 8260B	EPA 5035	486	GC/MS BB	2
EPA 8260B	EPA 5030C	986	GC/MS OO	2
EPA 8270C	EPA 3545	923	GC/MS CCC	1
EPA 9045D	N/A	688	PH 4	1
SM 2320B M	N/A	688	PH1/BUR03	1
SM 2540 C (M)	N/A	1009	N/A	1
SM 4500 N Org B (M)	N/A	685	BUR05	1
SM 4500 P B/E (M)	N/A	857	UV 7	1
SM 4500-NH3 B/C (M)	N/A	685	BUR05	1
SM 4500-NO3 E (M)	N/A	857	UV 7	1
SM 5540C (M)	N/A	990	UV 9	1
Total Nitrogen by Calc	N/A	92	N/A	1

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-06-2190 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

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **15-06-2190**

DATE: 6/26/15
PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 924 Anacapa St. Suite A
CITY: Santa Barbara STATE: CA ZIP: 93101
TEL: 805-897-3800 E-MAIL: RSmith@geosyntec.com

CLIENT PROJECT NAME / NO.: CG Roxane
P.O. NO.:
PROJECT CONTACT: Ryan Smith
LAB CONTACT OR QUOTE NO.: Steve Nowak
GLOBAL ID:
LOG CODE:
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

EDD:
☐ COELT EDF ☒ OTHER Geosyntec specific EDD

SPECIAL INSTRUCTIONS:
1 Cooler w/ this COC

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(g) ☐ GRO Total/Fecal Coliform	☐ TPH(d) ☐ DRO MBAS	~~TPH ☐ C6-C36 ☐ C6-C44~~ Anions/Gen Min	TPH Total Phos and Phosphate	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	~~CAM 17 See Metals~~ ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Total N, Nitrate, Nitrite, NH4, TKN	pH	TDS	TPHcc 8015
1	MW-04-05-062415	6/24/15	12:34	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
2	AP-4-05-062515	6/25/15	12:30	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
3	AP-4-05-062515-DUP	6/25/15	12:30	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
4	MW-02-10-062515	6/25/15	17:31	S	5	2	3		X	X	X	X		X			X				X		X	X	X	
(4A)	~~AP-4-10-062515~~	~~6/25/15~~	~~14:35~~	~~W~~ S (4A)	~~14~~	~~6~~	~~8~~			X	X	X		X			X				X		X		X	
(5A)	~~EQTB-01-062515~~	~~6/25/15~~		W	2		2							X												
5	Soil Profile	6/26/15	11:30	S	1	1								X							X					X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) EG	Date: 6/29/15	Time: 1000

2014-07-01 Revision

Return to Contents

2190

FedEx. US Airbill Express

FedEx tracking Number 8668 6450 1796

0200 Recipient's Copy

From

Date

Sender's Name Phone

Company

Address Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name Phone

Company

Recipient's Address Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City State ZIP

8668 6450 1796

4a Express Package Service — Packages up to 150 lbs.

FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Standard Overnight Afternoon.* available.

FedEx First Overnight Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.

FedEx 2Day Second business day.* Thursday shipments will be delivered on Mo unless SATURDAY Delivery is sel FedEx Envelope rate not ava

4b Express Freight S

FedEx 1Day Freight* Next business day.** Friday shipments will be delivered unless SATURDAY Deliver

* Call for Confirmation.

5 Packaging

FedEx Envelope*

6 Special Ha

SATURDAY Not available for FedEx Standard FedEx First Ov Saver, or Fed

Does th

No Yes As per attach Shipper's Declaration

Dangerous goods (including dry ice) cannot be shipped in

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No.

Sender Acct. No. in Section 1 will be billed. Recipient Third Party Credit

Total Packages Total Weight Total Declared Value†

1 20 $ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details. Credit Card Auth.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

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. Fee applies.

520

596 FedEx•PRINTED IN U.S.A. SRY

FedEx TRK# 0200 8668 6450 1796

92 APVA

MON STANDARD

FID 488702 26JUN15 IYKA 522C1/8A0E/EE4B

eurofins | Calscience

WORK ORDER NUMBER: 15-06- 2190

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 06 / 29 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.3°C); Temperature (w/o CF): 20.9 °C (w/ CF): 20.6 °C; ☐ Blank ☑ Sample

☑ Sample(s) outside temperature criteria (PM/APM contacted by: 836) melted ice

☐ 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: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 965

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	~~☑~~ 121	☒ pH, MBAS	☐
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 ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGBh ☐ 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® (3) ☐ _____

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: 965

Reviewed by: 681

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06- 2190

SAMPLE ANOMALY REPORT

DATE: 06 / 29 / 2015

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*)

(-3) received 1 of 2 8 oz clear glass jars broken

* 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: 965

Reviewed by: 681

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Stephen Nowak

From: Ryan Smith [rsmith@geosyntec.com]
Sent: Monday, June 29, 2015 10:51 AM
To: Stephen Nowak
Cc: Maricris dela Rosa
Subject: RE: ***COC***

Yes, please analyze the samples on this COC for all selected tests. Even tests out of hold time.

Thank you.

Ryan Smith, P.G., C.Hg
Project Geologist

-----Original Message-----
From: Stephen Nowak [mailto:StephenNowak@eurofinsUS.com]
Sent: Monday, June 29, 2015 10:33 AM
To: Ryan Smith
Cc: Maricris dela Rosa
Subject: FW: ***COC***

Ryan-

See attached COC and sample receipt form.
This sample was received today 06/29/15 and the temp is 16.3 deg C- do you still want us to run this sample?

Stephen Nowak
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494
Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

Reminder – We will observe the 4th of July holiday on Friday, July 3rd. Sample Control will be open 0830-1730 to accept samples. We will have limited staff working to handle short-hold analyses; no data will be reported as our Project Managers will not be working, and there is no courier service this day.

The lab will be closed on Saturday, July 4th. Sample Control will not be open to accept samples; FEDEX and GSO are not operating that day. Please do not ship samples for Saturday delivery as they will not be received until Monday.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from any computer. Email transmission cannot be guaranteed to be secure or error free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete. The sender therefore is in no way liable for any errors or omissions in the content of this message which may arise as a result of email transmission. If verification is required, please request a hard copy. We take reasonable precautions to ensure our emails are free from viruses. You need, however, to verify that this email and any attachments are free of viruses, as we can take no responsibility for any computer viruses, which might be transferred by way of this email. We may monitor all email communication through our networks. If you contact us by email, we may store your name and address to facilitate communication.

Return to Contents

eurofins | Calscience

Subcontractor Analysis Report

Work Order: 15-06-2190 Page 1 of 1

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Truesdail Laboratories, Inc. - Tustin,CA CA ELAP 1237
   Microbiology

Return to Contents

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING
Established 1931
3337 MICHELSON DRIVE, SUITE CN 750
IRVINE, CA 92612
(714) 730-6239 • FAX (714) 730-6462
www.truesdail.com

REPORT

Client: **Eurofins/Calscience**
7440 Lincoln Way
Garden Grove, CA 92841-1432
Attention: Stephen Nowalk
Project Name: Fecal Coliform
Project Number: 15-06-2190

Work Order No.: 15G0038
Printed: 07/08/2015

CASE NARRATIVE

SAMPLE RECEIPT SUMMARY

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
MW-04-05-062415	15G0038-01	Soil	Grab	06/24/2015 12:34	07/01/2015 12:12
AP-4-05-062515	15G0038-02	Soil	Grab	06/25/2015 12:30	07/01/2015 12:12
AP-4-05-062515-Dup	15G0038-03	Soil	Grab	06/25/2015 12:30	07/01/2015 12:12
MW-02-10-062515	15G0038-04	Soil	Grab	06/25/2015 17:31	07/01/2015 12:12

DEFINITIONS

Symbol	Definition
DF	Dilution Factor
MDL	Method Detection Limit
ND	Not Detected
RL	Reporting Limit

Respectfully yours,

Jeff Lee
Project Manager

Return to Contents

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

TRUESDAIL LABORATORIES, INC.

Client: Eurofins/Calscience

Project Name: Fecal Coliform
Project Number: 15-06-2190
Printed: 07/08/2015

MW-04-05-062415
15G0038-01 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	

AP-4-05-062515
15G0038-02 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	

AP-4-05-062515-Dup
15G0038-03 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	

MW-02-10-062515
15G0038-04 (Soil)

Analyte	Result	RL	Units	DF	Batch	Analyzed	Analyst	Method	Notes
Truesdail Laboratories, Inc									
Microbiology									
Total Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	
Fecal Coliforms	ND	20.0	MPN/g	1	1507058	07/03/2015 14:00	PA	SM 9221 B	

Return to Contents

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

Return to Contents

eurofins | Calscience
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: Truesdail
Irvine

15G0038

CHAIN OF CUSTODY RECORD

DATE: 07/01/15
PAGE: 1 OF 1

LABORATORY CLIENT: Eurofins Calscience, Inc.
ADDRESS: 7440 Lincoln Way
CITY: Garden Grove, CA 92841
TEL: 714-895-5494
E-MAIL: StephenNowak@eurofinsUS.com

CLIENT PROJECT NAME / NUMBER: 15-06-2190
PROJECT CONTACT: Stephen Nowak
SAMPLER(S): (PRINT)

P.O. NO.:
QUOTE NO.:
LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR 5 DAYS ■ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ RCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS
please run 6 dilutions

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Fecal Coliform	Total Coliform
	MW-04-05-062415	06/24/15	12:34	S	1	X	X
	AP-4-05-062515	06/25/15	12:30	S	1	X	X
	AP-4-05-062515-DUP	06/25/15	12:30	S	1	X	X
	MW-02-10-062515	06/25/15	17:31	S	1	X	X

Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date:	Time:
[signature]	(CALSCIENCE)	Linda, TLI	7/1/15	7/1/15 12:12
Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date:	Time:
Relinquished by: (Signature)		Received by / Affiliation: (Signature)	Date:	Time:

eurofins | Calscience

WORK ORDER NUMBER: 15-07-0551

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: Crystal Geyser / SB0746

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/17/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: Crystal Geyser / SB0746
Work Order Number: 15-07-0551

eurofins | Calscience

Work Order Narrative

Work Order: 15-07-0551 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/09/15. They were assigned to Work Order 15-07-0551.

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:	15-07-0551
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser / SB0746
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	07/09/15 18:50
		Number of Containers:	2
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SV-01-5-070815	15-07-0551-1	07/08/15 08:09	1	Air
SV-01-5-070815-DUP	15-07-0551-2	07/08/15 08:09	1	Air

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-07-0551
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/09/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-01-5-070815 (15-07-0551-1)						
Acetone	25		5.0	ug/m3	EPA TO-15	N/A
Chloromethane	1.1		1.1	ug/m3	EPA TO-15	N/A
Isopropanol	18		13	ug/m3	EPA TO-15	N/A
SV-01-5-070815-DUP (15-07-0551-2)						
Acetone	60		4.9	ug/m3	EPA TO-15	N/A
Benzene	20		1.7	ug/m3	EPA TO-15	N/A
2-Butanone	9.6		4.6	ug/m3	EPA TO-15	N/A
Ethylbenzene	4.8		2.3	ug/m3	EPA TO-15	N/A
Isopropanol	20		13	ug/m3	EPA TO-15	N/A
Tetrachloroethene	5.2		3.5	ug/m3	EPA TO-15	N/A
Toluene	7.8		2.0	ug/m3	EPA TO-15	N/A
o-Xylene	2.3		2.3	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-5-070815	**15-07-0551-1-A**	**07/08/15 08:09**	**Air**	**GC/MS II**	**N/A**	**07/11/15 03:24**	**150710L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	25	5.0	1.06	
Benzene	ND	1.7	1.06	
Benzyl Chloride	ND	8.2	1.06	
Bromodichloromethane	ND	3.6	1.06	
Bromoform	ND	5.5	1.06	
Bromomethane	ND	2.1	1.06	
2-Butanone	ND	4.7	1.06	
n-Butylbenzene	ND	2.9	1.06	
sec-Butylbenzene	ND	2.9	1.06	
tert-Butylbenzene	ND	2.9	1.06	
Carbon Disulfide	ND	6.6	1.06	
Carbon Tetrachloride	ND	3.3	1.06	
Chlorobenzene	ND	2.4	1.06	
Chloroethane	ND	1.4	1.06	
Chloroform	ND	2.6	1.06	
Chloromethane	1.1	1.1	1.06	
Dibromochloromethane	ND	4.5	1.06	
1,2-Dibromoethane	ND	4.1	1.06	
1,2-Dichlorobenzene	ND	3.2	1.06	
1,3-Dichlorobenzene	ND	3.2	1.06	
1,4-Dichlorobenzene	ND	3.2	1.06	
Dichlorodifluoromethane	ND	2.6	1.06	
1,1-Dichloroethane	ND	2.1	1.06	
1,2-Dichloroethane	ND	2.1	1.06	
1,1-Dichloroethene	ND	2.1	1.06	
c-1,2-Dichloroethene	ND	2.1	1.06	
t-1,2-Dichloroethene	ND	2.1	1.06	
1,2-Dichloropropane	ND	2.4	1.06	
c-1,3-Dichloropropene	ND	2.4	1.06	
t-1,3-Dichloropropene	ND	4.8	1.06	
Dichlorotetrafluoroethane	ND	15	1.06	
1,1-Difluoroethane	ND	5.7	1.06	
Ethylbenzene	ND	2.3	1.06	
4-Ethyltoluene	ND	2.6	1.06	
Hexachloro-1,3-Butadiene	ND	17	1.06	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Parameter	Result	RL	DF	Qualifiers
2-Hexanone	ND	6.5	1.06	
Isopropanol	18	13	1.06	
Methyl-t-Butyl Ether (MTBE)	ND	7.6	1.06	
Methylene Chloride	ND	18	1.06	
4-Methyl-2-Pentanone	ND	6.5	1.06	
Styrene	ND	6.8	1.06	
1,1,2,2-Tetrachloroethane	ND	7.3	1.06	
Tetrachloroethene	ND	3.6	1.06	
Toluene	ND	2.0	1.06	
1,2,4-Trichlorobenzene	ND	16	1.06	
1,1,1-Trichloroethane	ND	2.9	1.06	
1,1,2-Trichloroethane	ND	2.9	1.06	
Trichloroethene	ND	2.8	1.06	
Trichlorofluoromethane	ND	6.0	1.06	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12	1.06	
1,2,4-Trimethylbenzene	ND	7.8	1.06	
1,3,5-Trimethylbenzene	ND	2.6	1.06	
Vinyl Acetate	ND	7.5	1.06	
Vinyl Chloride	ND	1.4	1.06	
o-Xylene	ND	2.3	1.06	
p/m-Xylene	ND	9.2	1.06	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	112	68-134	
1,2-Dichloroethane-d4	97	67-133	
Toluene-d8	95	70-130	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-5-070815-DUP	**15-07-0551-2-A**	**07/08/15 08:09**	**Air**	**GC/MS II**	**N/A**	**07/11/15 05:58**	**150710L01**

Parameter	Result	RL	DF	Qualifiers
Acetone	60	4.9	1.04	
Benzene	20	1.7	1.04	
Benzyl Chloride	ND	8.1	1.04	
Bromodichloromethane	ND	3.5	1.04	
Bromoform	ND	5.4	1.04	
Bromomethane	ND	2.0	1.04	
2-Butanone	9.6	4.6	1.04	
n-Butylbenzene	ND	2.9	1.04	
sec-Butylbenzene	ND	2.9	1.04	
tert-Butylbenzene	ND	2.9	1.04	
Carbon Disulfide	ND	6.5	1.04	
Carbon Tetrachloride	ND	3.3	1.04	
Chlorobenzene	ND	2.4	1.04	
Chloroethane	ND	1.4	1.04	
Chloroform	ND	2.5	1.04	
Chloromethane	ND	1.1	1.04	
Dibromochloromethane	ND	4.4	1.04	
1,2-Dibromoethane	ND	4.0	1.04	
1,2-Dichlorobenzene	ND	3.1	1.04	
1,3-Dichlorobenzene	ND	3.1	1.04	
1,4-Dichlorobenzene	ND	3.1	1.04	
Dichlorodifluoromethane	ND	2.6	1.04	
1,1-Dichloroethane	ND	2.1	1.04	
1,2-Dichloroethane	ND	2.1	1.04	
1,1-Dichloroethene	ND	2.1	1.04	
c-1,2-Dichloroethene	ND	2.1	1.04	
t-1,2-Dichloroethene	ND	2.1	1.04	
1,2-Dichloropropane	ND	2.4	1.04	
c-1,3-Dichloropropene	ND	2.4	1.04	
t-1,3-Dichloropropene	ND	4.7	1.04	
Dichlorotetrafluoroethane	ND	15	1.04	
1,1-Difluoroethane	ND	5.6	1.04	
Ethylbenzene	4.8	2.3	1.04	
4-Ethyltoluene	ND	2.6	1.04	
Hexachloro-1,3-Butadiene	ND	17	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0551
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: Crystal Geyser / SB0746		Page 4 of 6

Parameter	Result	RL	DF	Qualifiers
2-Hexanone	ND	6.4	1.04	
Isopropanol	20	13	1.04	
Methyl-t-Butyl Ether (MTBE)	ND	7.5	1.04	
Methylene Chloride	ND	18	1.04	
4-Methyl-2-Pentanone	ND	6.4	1.04	
Styrene	ND	6.6	1.04	
1,1,2,2-Tetrachloroethane	ND	7.1	1.04	
Tetrachloroethene	5.2	3.5	1.04	
Toluene	7.8	2.0	1.04	
1,2,4-Trichlorobenzene	ND	15	1.04	
1,1,1-Trichloroethane	ND	2.8	1.04	
1,1,2-Trichloroethane	ND	2.8	1.04	
Trichloroethene	ND	2.8	1.04	
Trichlorofluoromethane	ND	5.8	1.04	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	12	1.04	
1,2,4-Trimethylbenzene	ND	7.7	1.04	
1,3,5-Trimethylbenzene	ND	2.6	1.04	
Vinyl Acetate	ND	7.3	1.04	
Vinyl Chloride	ND	1.3	1.04	
o-Xylene	2.3	2.3	1.04	
p/m-Xylene	ND	9.0	1.04	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	111	68-134	
1,2-Dichloroethane-d4	100	67-133	
Toluene-d8	96	70-130	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-15654**	**N/A**	**Air**	**GC/MS II**	**N/A**	**07/10/15 16:27**	**150710L01**

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

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15
Units: ug/m3

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	
1,2,4-Trichlorobenzene	ND	15	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	100	68-134	
1,2-Dichloroethane-d4	100	67-133	
Toluene-d8	98	70-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-15654	**LCS**	**Air**	**GC/MS II**	**N/A**	**07/10/15 13:41**	**150710L01**
095-01-021-15654	**LCSD**	**Air**	**GC/MS II**	**N/A**	**07/10/15 14:31**	**150710L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	59.39	50.29	85	49.24	83	67-133	56-144	2	0-30	
Benzene	79.87	66.16	83	69.35	87	70-130	60-140	5	0-30	
Benzyl Chloride	129.4	121.0	94	125.0	97	38-158	18-178	3	0-30	
Bromodichloromethane	167.5	144.6	86	150.1	90	70-130	60-140	4	0-30	
Bromoform	258.4	220.0	85	227.6	88	63-147	49-161	3	0-30	
Bromomethane	97.08	87.77	90	85.48	88	70-139	58-150	3	0-30	
2-Butanone	73.73	65.46	89	67.93	92	66-132	55-143	4	0-30	
n-Butylbenzene	137.2	112.5	82	116.5	85	50-150	33-167	3	0-30	
sec-Butylbenzene	137.2	110.6	81	114.5	83	50-150	33-167	3	0-30	
tert-Butylbenzene	137.2	111.5	81	115.2	84	50-150	33-167	3	0-30	
Carbon Disulfide	77.85	64.72	83	67.16	86	68-146	55-159	4	0-30	
Carbon Tetrachloride	157.3	137.3	87	142.1	90	70-136	59-147	3	0-30	
Chlorobenzene	115.1	96.63	84	100.5	87	70-130	60-140	4	0-30	
Chloroethane	65.96	55.55	84	55.25	84	65-149	51-163	1	0-30	
Chloroform	122.1	98.73	81	102.6	84	70-130	60-140	4	0-30	
Chloromethane	51.63	45.07	87	45.54	88	69-141	57-153	1	0-30	
Dibromochloromethane	213.0	173.6	82	179.1	84	70-138	59-149	3	0-30	
1,2-Dibromoethane	192.1	162.8	85	169.1	88	70-133	60-144	4	0-30	
1,2-Dichlorobenzene	150.3	129.8	86	134.7	90	48-138	33-153	4	0-30	
1,3-Dichlorobenzene	150.3	129.1	86	133.6	89	56-134	43-147	3	0-30	
1,4-Dichlorobenzene	150.3	131.0	87	136.2	91	52-136	38-150	4	0-30	
Dichlorodifluoromethane	123.6	106.1	86	110.5	89	67-139	55-151	4	0-30	
1,1-Dichloroethane	101.2	80.27	79	84.23	83	70-130	60-140	5	0-30	
1,2-Dichloroethane	101.2	87.37	86	90.42	89	70-132	60-142	3	0-30	
1,1-Dichloroethene	99.12	78.92	80	79.84	81	70-135	59-146	1	0-30	
c-1,2-Dichloroethene	99.12	78.86	80	82.03	83	70-130	60-140	4	0-30	
t-1,2-Dichloroethene	99.12	79.62	80	83.06	84	70-130	60-140	4	0-30	
1,2-Dichloropropane	115.5	95.77	83	100.2	87	70-130	60-140	4	0-30	
c-1,3-Dichloropropene	113.5	103.7	91	108.0	95	70-130	60-140	4	0-30	
t-1,3-Dichloropropene	113.5	115.1	101	120.7	106	70-147	57-160	5	0-30	
Dichlorotetrafluoroethane	174.8	124.2	71	122.6	70	51-135	37-149	1	0-30	
1,1-Difluoroethane	67.54	61.53	91	64.64	96	70-131	60-141	5	0-30	
Ethylbenzene	108.6	89.84	83	92.94	86	70-130	60-140	3	0-30	
4-Ethyltoluene	122.9	104.5	85	108.2	88	68-130	58-140	3	0-30	
Hexachloro-1,3-Butadiene	266.6	215.3	81	224.4	84	44-146	27-163	4	0-30	
2-Hexanone	102.4	86.64	85	89.70	88	70-136	59-147	3	0-30	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0551
Preparation: N/A
Method: EPA TO-15

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Isopropanol	61.45	45.77	74	45.63	74	57-135	44-148	0	0-30	
Methyl-t-Butyl Ether (MTBE)	90.13	75.03	83	77.60	86	68-130	58-140	3	0-30	
Methylene Chloride	86.84	64.22	74	51.71	60	69-130	59-140	22	0-30	ME
4-Methyl-2-Pentanone	102.4	89.89	88	93.46	91	70-130	60-140	4	0-30	
Styrene	106.5	91.90	86	94.84	89	65-131	54-142	3	0-30	
1,1,2,2-Tetrachloroethane	171.6	133.7	78	138.3	81	63-130	52-141	3	0-30	
Tetrachloroethene	169.6	146.9	87	151.2	89	70-130	60-140	3	0-30	
Toluene	94.21	78.23	83	81.53	87	70-130	60-140	4	0-30	
1,2,4-Trichlorobenzene	185.5	183.2	99	191.2	103	31-151	11-171	4	0-30	
1,1,1-Trichloroethane	136.4	112.3	82	116.0	85	70-130	60-140	3	0-30	
1,1,2-Trichloroethane	136.4	117.7	86	121.9	89	70-130	60-140	3	0-30	
Trichloroethene	134.3	114.5	85	119.0	89	70-130	60-140	4	0-30	
Trichlorofluoromethane	140.5	116.7	83	110.3	79	63-141	50-154	6	0-30	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	164.2	86	169.4	88	70-136	59-147	3	0-30	
1,2,4-Trimethylbenzene	122.9	105.2	86	109.0	89	60-132	48-144	4	0-30	
1,3,5-Trimethylbenzene	122.9	101.5	83	105.5	86	62-130	51-141	4	0-30	
Vinyl Acetate	88.03	66.21	75	69.26	79	58-130	46-142	5	0-30	
Vinyl Chloride	63.91	53.29	83	53.61	84	70-134	59-145	1	0-30	
o-Xylene	108.6	88.01	81	91.05	84	69-130	59-140	3	0-30	
p/m-Xylene	217.1	176.7	81	183.2	84	70-132	60-142	4	0-30	

Total number of LCS compounds: 56
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

eurofins | Calscience

Summa Canister Vacuum Summary

Work Order: 15-07-0551 Page 1 of 1

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
SV-01-5-070815	-29.50 in Hg	-7.50 in Hg	LC278	Summa Canister 1L
SV-01-5-070815-DUP	-29.50 in Hg	-7.50 in Hg	LC1006	Summa Canister 1L

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-07-0551 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA TO-15	N/A	866	GC/MS II	2

Return to Contents

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-07-0551 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

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

AIR CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **15-07-0551**

DATE: 7/8/15
PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 924 Anacapa St.
CITY: Santa Barbara STATE: CA ZIP: 93101
TEL: 805-979-9140 E-MAIL: rsmith@geosyntec.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD
EDD: ☐ COELT EDF ☐ OTHER
UNITS:

CLIENT PROJECT NAME / NO.: SB0746
PROJECT CONTACT: Ryan Smith
PROJECT ADDRESS: Crystal Geyser Roxane
CITY: Olancha STATE: CA ZIP: 93549

P.O. NO.:
LAB CONTACT OR QUOTE NO.: S. Newark
SAMPLER(S): (PRINT) Nick Godinez

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES: TO-15

LAB USE ONLY	SAMPLE ID	FIELD ID / POINT OF COLLECTION	MATRIX: Indoor (I) Soil Vap. (SV) Ambient (A)	SAMPLING EQUIPMENT: Media ID	Canister Size 6L or 1L	Flow Controller ID	START SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	STOP SAMPLING INFORMATION: Date	Time (24 hr clock)	Canister Pressure (in Hg)	TO-15
1	SV-01-5-070815	SV-01	SV	LC278	1L	A303	7/8/15	0759	-25.82	7/8/15	0809	-3.58	X
2	SV-01-5-070815-DUP	SV-01	SV	LC1006	1L	A303	7/8/15	0759	-26.00	7/8/15	0809	-3.52	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Nicki Murray	EQ	7/9/15	14:30
	EQ	7/9/15	1850

2014-07-01 Revision

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 2557

SAMPLE RECEIPT CHECKLIST

COOLER Ø OF Ø

CLIENT: Geosyntec

DATE: 07 / 09 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°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: 671

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☑ N/A Checked by: 671

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 ☐ 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: 1013

s = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH Reviewed by: 681

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06-2184

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/16/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: CG Roxane
Work Order Number: 15-06-2184

eurofins | Calscience

Work Order Narrative

Work Order: 15-06-2184 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/29/15. They were assigned to Work Order 15-06-2184.

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:	15-06-2184
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	06/29/15 10:10
		Number of Containers:	16
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
AP-4-10-062515	15-06-2184-1	06/25/15 14:35	14	Aqueous
QCTB-01-062515	15-06-2184-2	06/25/15 00:00	2	Aqueous

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-06-2184
	924 Anacapa Street, Suite 4A	Project Name:	CG Roxane
	Santa Barbara, CA 93101-2177	Received:	06/29/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
AP-4-10-062515 (15-06-2184-1)						
Calcium	3.54		0.100	mg/L	EPA 200.7	N/A
Magnesium	0.199		0.100	mg/L	EPA 200.7	N/A
Sodium	95.6		0.500	mg/L	EPA 200.7	N/A
Chloride	7.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	26		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.239		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	1.30		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Chromium	0.0133		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Copper	0.0836		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Lead	0.0161		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.137		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.187		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.282		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0801		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0543		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.0221		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0116		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	865		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	2060		10.0	mg/L	SM 2540 C	N/A
pH	9.24	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	0.98		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	8.8		2.5	mg/L	SM 4500 P B/E	N/A
Total Phosphate	27		7.8	mg/L	SM 4500 P B/E	N/A
Total Nitrogen	1.1		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

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-E**	**06/25/15 14:35**	**Aqueous**	**IC 15**	**N/A**	**06/29/15 15:20**	**150629L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	7.9	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	**099-12-906-5868**	**N/A**	**Aqueous**	**IC 15**	**N/A**	**06/29/15 14:46**	**150629L01**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-I**	**06/25/15 14:35**	**Aqueous**	**ICP 7300**	**07/06/15**	**07/06/15 20:03**	**150706LA2**

Parameter	Result	RL	DF	Qualifiers
Calcium	3.54	0.100	1.00	
Magnesium	0.199	0.100	1.00	
Sodium	95.6	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	**097-01-012-6251**	**N/A**	**Aqueous**	**ICP 7300**	**07/06/15**	**07/06/15 21:26**	**150706LA2**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-I**	**06/25/15 14:35**	**Aqueous**	**ICP 7300**	**06/29/15**	**07/03/15 15:46**	**150629LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0801	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	0.0543	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	0.0221	0.0100	1.00	
Zinc	0.0116	0.0100	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

Date Received: 06/29/15
Work Order: 15-06-2184
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	**097-01-003-15175**	**N/A**	**Aqueous**	**ICP 7300**	**06/29/15**	**06/30/15 14:09**	**150629LA2**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-M**	**06/25/15 14:35**	**Aqueous**	**ICP 7300**	**06/30/15**	**07/03/15 15:44**	**150630LA7A**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.239	0.0100	1.00	
Barium	1.30	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	0.0133	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	0.0836	0.0100	1.00	
Lead	0.0161	0.0100	1.00	
Molybdenum	0.137	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	0.187	0.0100	1.00	
Zinc	0.282	0.0100	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

Date Received: 06/29/15
Work Order: 15-06-2184
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	**097-01-003-15183**	**N/A**	**Aqueous**	**ICP 7300**	**06/30/15**	**07/03/15 13:19**	**150630LA7A**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-I**	**06/25/15 14:35**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 19:36**	**150701L03**

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	**099-04-008-7486**	**N/A**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 19:01**	**150701L03**

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

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-M**	**06/25/15 14:35**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 19:36**	**150701L02F**

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	**099-15-763-579**	**N/A**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 18:07**	**150701L02F**

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

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-H**	**06/25/15 14:35**	**Aqueous**	**GC/MS TT**	**06/30/15**	**07/01/15 14:51**	**150630L12**

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

Date Received: 06/29/15
Work Order: 15-06-2184
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:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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	80	50-110	
2-Fluorophenol	81	20-110	
Nitrobenzene-d5	77	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	75	10-115	
2,4,6-Tribromophenol	81	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

Date Received: 06/29/15
Work Order: 15-06-2184
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	**099-02-008-44**	**N/A**	**Aqueous**	**GC/MS TT**	**06/30/15**	**07/01/15 11:46**	**150630L12**

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

Date Received: 06/29/15
Work Order: 15-06-2184
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:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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	73	50-110	
2-Fluorophenol	53	20-110	
Nitrobenzene-d5	70	40-110	
p-Terphenyl-d14	75	50-135	
Phenol-d6	33	10-115	
2,4,6-Tribromophenol	74	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

Date Received: 06/29/15
Work Order: 15-06-2184
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
AP-4-10-062515	**15-06-2184-1-A**	**06/25/15 14:35**	**Aqueous**	**GC/MS T**	**07/02/15**	**07/03/15 09:12**	**150702L023**

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: 06/29/15
Work Order: 15-06-2184
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	79-120	
Dibromofluoromethane	119	80-126	
1,2-Dichloroethane-d4	129	80-124	2,7
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

Date Received: 06/29/15
Work Order: 15-06-2184
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-01-062515	**15-06-2184-2-A**	**06/25/15 00:00**	**Aqueous**	**GC/MS T**	**07/02/15**	**07/03/15 01:52**	**150702L023**

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: 06/29/15
Work Order: 15-06-2184
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	79-120	
Dibromofluoromethane	105	80-126	
1,2-Dichloroethane-d4	117	80-124	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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	**099-14-316-2189**	**N/A**	**Aqueous**	**GC/MS T**	**07/02/15**	**07/03/15 01:21**	**150702L023**

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:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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	97	79-120	
Dibromofluoromethane	103	80-126	
1,2-Dichloroethane-d4	114	80-124	
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

Date Received: 06/29/15
Work Order: 15-06-2184

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
AP-4-10-062515	**15-06-2184-1**	**06/25/15 14:35**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	865	5.00	1.00		mg/L	N/A	07/01/15	SM 2320B
Solids, Total Dissolved	2060	10.0	1.00		mg/L	06/30/15	06/30/15	SM 2540 C
pH	9.24	0.01	1.00	BV,BU	pH units	N/A	06/29/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.98	0.50	1.00		mg/L	07/01/15	07/01/15	SM 4500 N Org B
Phosphorus, Total	8.8	2.5	25.0		mg/L	06/30/15	06/30/15	SM 4500 P B/E
Total Phosphate	27	7.8	25.0		mg/L	06/30/15	06/30/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/01/15	07/01/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/01/15	07/01/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00	BV,BU	mg/L	06/29/15	06/29/15	SM 5540C
Total Nitrogen	1.1	0.50	1.00		mg/L	N/A	07/09/15	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	07/01/15	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	06/30/15	06/30/15	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	07/01/15	07/01/15	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	06/30/15	06/30/15	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	06/30/15	06/30/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/01/15	07/01/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/01/15	07/01/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	06/29/15	06/29/15	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane			Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
AP-4-10-062515	**Sample**	**Aqueous**	**IC 15**	**N/A**	**06/29/15 15:20**	**150629S01**
AP-4-10-062515	**Matrix Spike**	**Aqueous**	**IC 15**	**N/A**	**06/29/15 15:38**	**150629S01**
AP-4-10-062515	**Matrix Spike Duplicate**	**Aqueous**	**IC 15**	**N/A**	**06/29/15 15:55**	**150629S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	7.922	5000	5712	114	5705	114	80-120	0	0-20	
Sulfate	26.27	5000	5672	113	5653	113	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
AP-4-10-062515	**Sample**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630TPS1**
AP-4-10-062515	**Matrix Spike**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630TPS1**
AP-4-10-062515	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	8.820	10.00	18.38	96	18.48	97	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
AP-4-10-062515	**Sample**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630PO4S1**
AP-4-10-062515	**Matrix Spike**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630PO4S1**
AP-4-10-062515	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	26.99	30.50	56.25	96	56.50	97	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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
15-06-2310-2	**Sample**	**Aqueous**	**UV 7**	**07/01/15**	**07/01/15 13:35**	**F0701NO3S1**
15-06-2310-2	**Matrix Spike**	**Aqueous**	**UV 7**	**07/01/15**	**07/01/15 13:35**	**F0701NO3S1**
15-06-2310-2	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/01/15**	**07/01/15 13:35**	**F0701NO3S1**

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	0.4910	98	0.4970	99	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane			Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
AP-4-10-062515	**Sample**	**Aqueous**	**UV 9**	**06/29/15**	**06/29/15 16:15**	**F0629SURS1**
AP-4-10-062515	**Matrix Spike**	**Aqueous**	**UV 9**	**06/29/15**	**06/29/15 16:15**	**F0629SURS1**
AP-4-10-062515	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**06/29/15**	**06/29/15 16:15**	**F0629SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.8400	84	0.8600	86	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
15-07-0119-1	**Sample**	**Aqueous**	**ICP 7300**	**07/06/15**	**07/06/15 21:34**	**150706SA2**
15-07-0119-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/06/15**	**07/06/15 21:30**	**150706SA2**
15-07-0119-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/06/15**	**07/06/15 21:40**	**150706SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	67.61	0.5000	65.61	4X	61.39	4X	80-120	4X	0-20	Q
Magnesium	18.59	0.5000	17.44	4X	17.19	4X	80-120	4X	0-20	Q
Sodium	214.3	5.000	213.5	4X	199.7	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: CG Roxane			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2180-2	**Sample**	**Aqueous**	**ICP 7300**	**06/29/15**	**06/30/15 14:22**	**150629SA2**
15-06-2180-2	**Matrix Spike**	**Aqueous**	**ICP 7300**	**06/29/15**	**06/30/15 14:28**	**150629SA2**
15-06-2180-2	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**06/29/15**	**06/30/15 14:29**	**150629SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.5211	104	0.5371	107	72-132	3	0-10	
Arsenic	2.547	0.5000	2.965	4X	3.075	4X	80-140	4X	0-11	Q
Barium	0.09673	0.5000	0.6085	102	0.6001	101	87-123	1	0-6	
Beryllium	ND	0.5000	0.5430	109	0.5572	111	89-119	3	0-8	
Cadmium	ND	0.5000	0.5371	107	0.5486	110	82-124	2	0-7	
Chromium	0.01702	0.5000	0.5695	111	0.5786	112	86-122	2	0-8	
Cobalt	ND	0.5000	0.5664	113	0.5776	116	83-125	2	0-7	
Copper	0.02069	0.5000	0.5789	112	0.5866	113	78-126	1	0-7	
Lead	ND	0.5000	0.5458	109	0.5606	112	84-120	3	0-7	
Molybdenum	ND	0.5000	0.5486	110	0.5553	111	78-126	1	0-7	
Nickel	0.01579	0.5000	0.5611	109	0.5637	110	84-120	0	0-7	
Selenium	ND	0.5000	0.4047	81	0.4104	82	79-127	1	0-9	
Silver	ND	0.2500	0.2513	101	0.2568	103	86-128	2	0-7	
Thallium	ND	0.5000	0.5598	112	0.5759	115	79-121	3	0-8	
Vanadium	0.01206	0.5000	0.5599	110	0.5653	111	88-118	1	0-7	
Zinc	0.6877	0.5000	1.184	99	1.211	105	89-131	2	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: CG Roxane			Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-06-2262-2	**Sample**	**Aqueous**	**ICP 7300**	**06/30/15**	**07/03/15 14:06**	**150630SA7**
15-06-2262-2	**Matrix Spike**	**Aqueous**	**ICP 7300**	**06/30/15**	**07/03/15 14:08**	**150630SA7**
15-06-2262-2	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**06/30/15**	**07/03/15 14:10**	**150630SA7**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.5250	105	0.5151	103	72-132	2	0-10	
Arsenic	ND	0.5000	0.5212	104	0.5156	103	80-140	1	0-11	
Barium	0.4365	0.5000	0.9711	107	0.9638	105	87-123	1	0-6	
Beryllium	ND	0.5000	0.5471	109	0.5507	110	89-119	1	0-8	
Cadmium	ND	0.5000	0.5097	102	0.5114	102	82-124	0	0-7	
Chromium	ND	0.5000	0.5433	109	0.5524	110	86-122	2	0-8	
Cobalt	0.01053	0.5000	0.5254	103	0.5197	102	83-125	1	0-7	
Copper	ND	0.5000	0.4893	98	0.4883	98	78-126	0	0-7	
Lead	ND	0.5000	0.5083	102	0.5053	101	84-120	1	0-7	
Molybdenum	ND	0.5000	0.5321	106	0.5318	106	78-126	0	0-7	
Nickel	0.03296	0.5000	0.5407	102	0.5412	102	84-120	0	0-7	
Selenium	ND	0.5000	0.5488	110	0.5504	110	79-127	0	0-9	
Silver	ND	0.2500	0.2698	108	0.2706	108	86-128	0	0-7	
Thallium	ND	0.5000	0.4737	95	0.4659	93	79-121	2	0-8	
Vanadium	ND	0.5000	0.5359	107	0.5420	108	88-118	1	0-7	
Zinc	0.05947	0.5000	0.5494	98	0.5406	96	89-131	2	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
15-06-1773-2	**Sample**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 19:05**	**150701S03**
15-06-1773-2	**Matrix Spike**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 19:07**	**150701S03**
15-06-1773-2	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 19:10**	**150701S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009663	97	0.009600	96	75-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
15-06-2040-2	**Sample**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 18:40**	**150701S02F**
15-06-2040-2	**Matrix Spike**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 20:18**	**150701S02F**
15-06-2040-2	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 20:20**	**150701S02F**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009754	98	0.009576	96	57-141	2	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
15-06-2262-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/01/15 20:55**	**F0701ALKD1**
15-06-2262-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/01/15 20:55**	**F0701ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	555.0	552.0	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-2032-1	**Sample**	**Aqueous**	**SC 2**	**06/30/15 00:00**	**06/30/15 18:00**	**F0630TDSD3**
15-06-2032-1	**Sample Duplicate**	**Aqueous**	**SC 2**	**06/30/15 00:00**	**06/30/15 18:00**	**F0630TDSD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1365	1375	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 H+ B
Project: CG Roxane			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-06-2214-1	**Sample**	**Aqueous**	**PH 1**	**N/A**	**06/29/15 18:51**	**F0629PHD1**
15-06-2214-1	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**06/29/15 18:51**	**F0629PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	5.870	5.860	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
15-06-2080-1	**Sample**	**Aqueous**	**BUR05**	**07/01/15 00:00**	**07/01/15 17:46**	**F0701TKND1**
15-06-2080-1	**Sample Duplicate**	**Aqueous**	**BUR05**	**07/01/15 00:00**	**07/01/15 17:46**	**F0701TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	112.0	110.3	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
099-12-906-5868	**LCS**	**Aqueous**	**IC 15**	**N/A**	**06/29/15 15:03**	**150629L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	51.15	102	90-110	
Sulfate	50.00	50.69	101	90-110	

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: 06/29/15
Work Order: 15-06-2184
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-744	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/01/15 20:55**	**F0701ALKB1**
099-15-859-744	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/01/15 20:55**	**F0701ALKB1**

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	98.00	98	80-120	2	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: 06/29/15
Work Order: 15-06-2184
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4652	**LCS**	**Aqueous**	**SC 2**	**06/30/15**	**06/30/15 18:00**	**F0630TDSL3**
099-12-180-4652	**LCSD**	**Aqueous**	**SC 2**	**06/30/15**	**06/30/15 18:00**	**F0630TDSL3**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	95.00	95	100.0	100	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: 06/29/15
924 Anacapa Street, Suite 4A	Work Order: 15-06-2184
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
099-05-098-2669	**LCS**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630TPL1**
099-05-098-2669	**LCSD**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4010	100	0.4000	100	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

Date Received: 06/29/15
Work Order: 15-06-2184
Preparation: N/A
Method: SM 4500 P B/E
Page 5 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-161	**LCS**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630PO4L1**
099-14-276-161	**LCSD**	**Aqueous**	**UV 7**	**06/30/15**	**06/30/15 15:39**	**F0630PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.230	101	1.220	100	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
099-12-814-2150	**LCS**	**Aqueous**	**BUR05**	**07/01/15**	**07/01/15 17:58**	**F0701NH3L1**
099-12-814-2150	**LCSD**	**Aqueous**	**BUR05**	**07/01/15**	**07/01/15 17:58**	**F0701NH3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.648	93	4.536	91	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: 06/29/15
924 Anacapa Street, Suite 4A	Work Order: 15-06-2184
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NO3 E
Project: CG Roxane	Page 7 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-336	**LCS**	**Aqueous**	**UV 7**	**07/01/15**	**07/01/15 13:35**	**F0701NO3L1**
099-14-282-336	**LCSD**	**Aqueous**	**UV 7**	**07/01/15**	**07/01/15 13:35**	**F0701NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.4740	95	0.4770	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane			Page 8 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-093-2888	**LCS**	**Aqueous**	**UV 9**	**06/29/15**	**06/29/15 16:15**	**F0629SURL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	1.000	0.9000	90	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
097-01-012-6251	**LCS**	**Aqueous**	**ICP 7300**	**07/06/15**	**07/06/15 21:43**	**150706LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.4912	98	85-115	
Magnesium	0.5000	0.4696	94	85-115	
Sodium	5.000	5.049	101	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: CG Roxane			Page 10 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15175	**LCS**	**Aqueous**	**ICP 7300**	**06/29/15**	**06/30/15 14:11**	**150629LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4594	92	80-120	73-127	
Arsenic	0.5000	0.4549	91	80-120	73-127	
Barium	0.5000	0.4701	94	80-120	73-127	
Beryllium	0.5000	0.4648	93	80-120	73-127	
Cadmium	0.5000	0.4822	96	80-120	73-127	
Chromium	0.5000	0.4971	99	80-120	73-127	
Cobalt	0.5000	0.5020	100	80-120	73-127	
Copper	0.5000	0.4920	98	80-120	73-127	
Lead	0.5000	0.4952	99	80-120	73-127	
Molybdenum	0.5000	0.4657	93	80-120	73-127	
Nickel	0.5000	0.5043	101	80-120	73-127	
Selenium	0.5000	0.4542	91	80-120	73-127	
Silver	0.2500	0.2327	93	80-120	73-127	
Thallium	0.5000	0.4809	96	80-120	73-127	
Vanadium	0.5000	0.4790	96	80-120	73-127	
Zinc	0.5000	0.4624	92	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: CG Roxane			Page 11 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15183	**LCS**	**Aqueous**	**ICP 7300**	**06/30/15**	**07/03/15 13:21**	**150630LA7A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4099	82	80-120	73-127	
Arsenic	0.5000	0.4099	82	80-120	73-127	
Barium	0.5000	0.4593	92	80-120	73-127	
Beryllium	0.5000	0.4386	88	80-120	73-127	
Cadmium	0.5000	0.4536	91	80-120	73-127	
Chromium	0.5000	0.4734	95	80-120	73-127	
Cobalt	0.5000	0.4573	91	80-120	73-127	
Copper	0.5000	0.4644	93	80-120	73-127	
Lead	0.5000	0.4469	89	80-120	73-127	
Molybdenum	0.5000	0.4236	85	80-120	73-127	
Nickel	0.5000	0.4601	92	80-120	73-127	
Selenium	0.5000	0.4100	82	80-120	73-127	
Silver	0.2500	0.2258	90	80-120	73-127	
Thallium	0.5000	0.4065	81	80-120	73-127	
Vanadium	0.5000	0.4526	91	80-120	73-127	
Zinc	0.5000	0.4500	90	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:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
099-04-008-7486	**LCS**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/02/15 15:34**	**150701L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009873	99	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/29/15
924 Anacapa Street, Suite 4A		Work Order:	15-06-2184
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
099-15-763-579	**LCS**	**Aqueous**	**Mercury 04**	**07/01/15**	**07/01/15 18:09**	**150701L02F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009976	100	85-121	

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: 06/29/15
Work Order: 15-06-2184
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-44	**LCS**	**Aqueous**	**GC/MS TT**	**06/30/15**	**07/01/15 12:04**	**150630L12**
099-02-008-44	**LCSD**	**Aqueous**	**GC/MS TT**	**06/30/15**	**07/01/15 12:36**	**150630L12**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	97.68	98	99.05	99	45-110	34-121	1	0-11	
Acenaphthylene	100.0	95.17	95	96.56	97	50-105	41-114	1	0-20	
Aniline	100.0	95.05	95	95.92	96	50-130	37-143	1	0-20	
Anthracene	100.0	99.85	100	100.2	100	55-110	46-119	0	0-20	
Azobenzene	100.0	101.3	101	100.2	100	50-130	37-143	1	0-20	
Benzidine	100.0	121.3	121	125.5	125	50-130	37-143	3	0-20	
Benzo (a) Anthracene	100.0	96.74	97	95.77	96	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	90.66	91	90.76	91	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	84.56	85	87.91	88	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	93.04	93	91.25	91	40-125	26-139	2	0-20	
Benzo (k) Fluoranthene	100.0	95.44	95	92.08	92	45-125	32-138	4	0-20	
Benzoic Acid	100.0	56.39	56	58.63	59	50-130	37-143	4	0-20	
Benzyl Alcohol	100.0	85.19	85	87.11	87	30-110	17-123	2	0-20	
Bis(2-Chloroethoxy) Methane	100.0	96.09	96	95.53	96	45-105	35-115	1	0-20	
Bis(2-Chloroethyl) Ether	100.0	93.90	94	93.26	93	35-110	22-122	1	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	102.2	102	103.2	103	25-130	8-148	1	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	103.7	104	102.8	103	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	94.93	95	92.66	93	50-115	39-126	2	0-20	
Butyl Benzyl Phthalate	100.0	104.0	104	101.8	102	45-115	33-127	2	0-20	
4-Chloro-3-Methylphenol	100.0	87.01	87	86.35	86	45-110	34-121	1	0-40	
4-Chloroaniline	100.0	97.14	97	98.54	99	15-110	0-126	1	0-20	
2-Chloronaphthalene	100.0	93.06	93	95.85	96	50-105	41-114	3	0-20	
2-Chlorophenol	100.0	87.81	88	88.59	89	35-105	23-117	1	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	89.24	89	90.64	91	50-110	40-120	2	0-20	
Chrysene	100.0	97.02	97	96.00	96	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	91.41	91	89.94	90	42-120	29-133	2	0-21	
Di-n-Butyl Phthalate	100.0	93.10	93	92.93	93	55-115	45-125	0	0-20	
Di-n-Octyl Phthalate	100.0	98.36	98	97.55	98	35-135	18-152	1	0-20	
Dibenz (a,h) Anthracene	100.0	89.98	90	90.10	90	40-125	26-139	0	0-20	
Dibenzofuran	100.0	92.88	93	94.13	94	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	89.57	90	90.77	91	35-100	24-111	1	0-20	
1,3-Dichlorobenzene	100.0	87.63	88	88.88	89	30-100	18-112	1	0-20	
1,4-Dichlorobenzene	100.0	88.07	88	88.84	89	30-100	18-112	1	0-26	
3,3'-Dichlorobenzidine	100.0	107.4	107	108.4	108	20-110	5-125	1	0-20	
2,4-Dichlorophenol	100.0	93.40	93	92.48	92	50-105	41-114	1	0-20	
Diethyl Phthalate	100.0	87.84	88	89.88	90	40-120	27-133	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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	88.39	88	90.64	91	25-125	8-142	3	0-20	
2,4-Dimethylphenol	100.0	93.22	93	93.50	94	30-110	17-123	0	0-20	
4,6-Dinitro-2-Methylphenol	100.0	100.0	100	101.5	101	40-130	25-145	1	0-20	
2,4-Dinitrophenol	100.0	86.97	87	91.88	92	15-140	0-161	5	0-20	
2,4-Dinitrotoluene	100.0	89.55	90	93.83	94	50-120	38-132	5	0-36	
2,6-Dinitrotoluene	100.0	92.75	93	94.12	94	50-115	39-126	1	0-20	
Fluoranthene	100.0	90.10	90	93.08	93	55-115	45-125	3	0-20	
Fluorene	100.0	93.00	93	96.54	97	50-110	40-120	4	0-20	
Hexachloro-1,3-Butadiene	100.0	88.50	89	86.18	86	25-105	12-118	3	0-20	
Hexachlorobenzene	100.0	96.17	96	95.67	96	50-110	40-120	1	0-20	
Hexachlorocyclopentadiene	100.0	85.49	85	87.06	87	50-130	37-143	2	0-20	
Hexachloroethane	100.0	90.15	90	90.94	91	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	89.34	89	88.87	89	45-125	32-138	1	0-20	
Isophorone	100.0	92.53	93	92.17	92	50-110	40-120	0	0-20	
2-Methylnaphthalene	100.0	93.55	94	92.80	93	45-105	35-115	1	0-20	
1-Methylnaphthalene	100.0	87.19	87	87.04	87	80-120	73-127	0	0-20	
2-Methylphenol	100.0	83.50	83	83.73	84	40-110	28-122	0	0-20	
3/4-Methylphenol	200.0	150.3	75	152.6	76	30-110	17-123	2	0-20	
N-Nitroso-di-n-propylamine	100.0	111.1	111	113.0	113	35-130	19-146	2	0-13	
N-Nitrosodimethylamine	100.0	78.77	79	81.79	82	25-110	11-124	4	0-20	
N-Nitrosodiphenylamine	100.0	138.2	138	134.5	135	50-110	40-120	3	0-20	X
Naphthalene	100.0	93.01	93	92.56	93	40-100	30-110	0	0-20	
4-Nitroaniline	100.0	101.9	102	105.5	106	35-120	21-134	3	0-20	
3-Nitroaniline	100.0	105.6	106	108.8	109	20-125	2-142	3	0-20	
2-Nitroaniline	100.0	111.4	111	115.3	115	50-115	39-126	3	0-20	
Nitrobenzene	100.0	87.56	88	87.19	87	45-110	34-121	0	0-20	
4-Nitrophenol	100.0	44.91	45	45.84	46	20-150	0-172	2	0-40	
2-Nitrophenol	100.0	94.05	94	93.69	94	40-115	28-128	0	0-20	
Pentachlorophenol	100.0	87.53	88	87.67	88	40-115	28-128	0	0-40	
Phenanthrene	100.0	103.2	103	103.6	104	50-115	39-126	0	0-20	
Phenol	100.0	41.41	41	41.35	41	10-115	0-132	0	0-23	
Pyrene	100.0	106.4	106	105.5	106	50-130	37-143	1	0-20	
Pyridine	100.0	89.52	90	92.28	92	52-115	42-126	3	0-20	
1,2,4-Trichlorobenzene	100.0	89.88	90	87.74	88	35-105	23-117	2	0-21	
2,4,6-Trichlorophenol	100.0	92.93	93	95.25	95	50-115	39-126	2	0-20	
2,4,5-Trichlorophenol	100.0	89.64	90	92.93	93	50-110	40-120	4	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: CG Roxane

Date Received: 06/29/15
Work Order: 15-06-2184
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-316-2189	**LCS**	**Aqueous**	**GC/MS T**	**07/02/15**	**07/02/15 23:11**	**150702L023**
099-14-316-2189	**LCSD**	**Aqueous**	**GC/MS T**	**07/02/15**	**07/02/15 23:43**	**150702L023**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	45.32	91	39.31	79	12-150	0-173	14	0-20	
Benzene	50.00	50.98	102	51.11	102	80-120	73-127	0	0-20	
Bromobenzene	50.00	57.86	116	55.32	111	80-120	73-127	4	0-20	
Bromochloromethane	50.00	60.48	121	51.98	104	80-122	73-129	15	0-20	
Bromodichloromethane	50.00	57.73	115	58.87	118	80-123	73-130	2	0-20	
Bromoform	50.00	49.50	99	52.50	105	74-134	64-144	6	0-20	
Bromomethane	50.00	57.79	116	50.53	101	22-160	0-183	13	0-20	
2-Butanone	50.00	43.77	88	41.98	84	44-164	24-184	4	0-20	
n-Butylbenzene	50.00	60.06	120	55.71	111	80-132	71-141	8	0-20	
sec-Butylbenzene	50.00	55.82	112	53.81	108	80-129	72-137	4	0-20	
tert-Butylbenzene	50.00	54.36	109	54.19	108	80-130	72-138	0	0-20	
Carbon Disulfide	50.00	45.84	92	38.71	77	60-126	49-137	17	0-20	
Carbon Tetrachloride	50.00	50.53	101	49.96	100	64-148	50-162	1	0-20	
Chlorobenzene	50.00	50.31	101	49.78	100	80-120	73-127	1	0-20	
Chloroethane	50.00	61.70	123	52.35	105	63-123	53-133	16	0-20	
Chloroform	50.00	56.15	112	57.25	114	79-121	72-128	2	0-20	
Chloromethane	50.00	54.49	109	46.98	94	43-133	28-148	15	0-20	
2-Chlorotoluene	50.00	56.99	114	52.40	105	80-130	72-138	8	0-20	
4-Chlorotoluene	50.00	54.24	108	52.99	106	80-121	73-128	2	0-20	
Dibromochloromethane	50.00	54.38	109	55.40	111	80-125	72-132	2	0-20	
1,2-Dibromo-3-Chloropropane	50.00	46.92	94	45.43	91	68-128	58-138	3	0-20	
1,2-Dibromoethane	50.00	51.22	102	51.67	103	80-120	73-127	1	0-20	
Dibromomethane	50.00	54.54	109	54.64	109	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	50.00	52.11	104	51.32	103	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	52.55	105	50.90	102	80-121	73-128	3	0-20	
1,4-Dichlorobenzene	50.00	51.39	103	49.72	99	80-120	73-127	3	0-20	
Dichlorodifluoromethane	50.00	52.30	105	43.54	87	25-187	0-214	18	0-20	
1,1-Dichloroethane	50.00	54.14	108	54.81	110	75-120	68-128	1	0-20	
1,2-Dichloroethane	50.00	59.72	119	59.45	119	80-123	73-130	0	0-20	
1,1-Dichloroethene	50.00	63.18	126	59.01	118	74-122	66-130	7	0-20	ME
c-1,2-Dichloroethene	50.00	56.70	113	58.50	117	75-123	67-131	3	0-20	
t-1,2-Dichloroethene	50.00	52.40	105	52.96	106	70-124	61-133	1	0-20	
1,2-Dichloropropane	50.00	54.58	109	55.28	111	80-120	73-127	1	0-20	
1,3-Dichloropropane	50.00	53.70	107	53.70	107	80-120	73-127	0	0-20	
2,2-Dichloropropane	50.00	66.51	133	64.43	129	49-151	32-168	3	0-20	
1,1-Dichloropropene	50.00	47.47	95	45.48	91	76-120	69-127	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/29/15
924 Anacapa Street, Suite 4A	Work Order:	15-06-2184
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	48.88	98	46.28	93	80-124	73-131	5	0-20	
t-1,3-Dichloropropene	50.00	42.92	86	40.26	81	68-128	58-138	6	0-20	
Ethylbenzene	50.00	56.45	113	53.94	108	80-120	73-127	5	0-20	
2-Hexanone	50.00	48.95	98	48.14	96	57-147	42-162	2	0-20	
Isopropylbenzene	50.00	57.95	116	54.61	109	80-127	72-135	6	0-20	
p-Isopropyltoluene	50.00	57.94	116	55.23	110	80-125	72-132	5	0-20	
Methylene Chloride	50.00	57.36	115	50.35	101	74-122	66-130	13	0-20	
4-Methyl-2-Pentanone	50.00	49.53	99	47.56	95	71-125	62-134	4	0-20	
Naphthalene	50.00	43.14	86	42.06	84	54-144	39-159	3	0-20	
n-Propylbenzene	50.00	57.41	115	52.07	104	80-127	72-135	10	0-20	
Styrene	50.00	57.37	115	55.26	111	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	57.41	115	59.93	120	80-125	72-132	4	0-20	
1,1,2,2-Tetrachloroethane	50.00	47.45	95	49.69	99	78-126	70-134	5	0-20	
Tetrachloroethene	50.00	61.78	124	58.43	117	57-141	43-155	6	0-20	
Toluene	50.00	54.88	110	53.39	107	80-120	73-127	3	0-20	
1,2,3-Trichlorobenzene	50.00	52.33	105	49.66	99	58-154	42-170	5	0-20	
1,2,4-Trichlorobenzene	50.00	54.05	108	51.71	103	57-153	41-169	4	0-20	
1,1,1-Trichloroethane	50.00	57.06	114	57.91	116	76-124	68-132	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	60.04	120	56.69	113	58-148	43-163	6	0-20	
1,1,2-Trichloroethane	50.00	53.02	106	53.60	107	80-120	73-127	1	0-20	
Trichloroethene	50.00	56.49	113	55.53	111	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	66.75	133	56.02	112	64-136	52-148	17	0-20	
1,2,3-Trichloropropane	50.00	48.63	97	46.32	93	74-122	66-130	5	0-20	
1,2,4-Trimethylbenzene	50.00	56.84	114	55.42	111	80-120	73-127	3	0-20	
1,3,5-Trimethylbenzene	50.00	62.42	125	57.42	115	80-126	72-134	8	0-20	
Vinyl Acetate	50.00	41.98	84	33.49	67	34-172	11-195	23	0-20	X
Vinyl Chloride	50.00	58.75	117	49.51	99	67-127	57-137	17	0-20	
p/m-Xylene	100.0	112.8	113	106.8	107	80-127	72-135	6	0-20	
o-Xylene	50.00	56.41	113	54.58	109	80-127	72-135	3	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	53.92	108	52.01	104	71-120	63-128	4	0-20	

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

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-06-2184 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	834	IC 15	1
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 7470A	EPA 7470A Filt.	915	Mercury 04	1
EPA 7470A	EPA 7470A Total	915	Mercury 04	1
EPA 8260B	EPA 5030C	849	GC/MS T	2
EPA 8260B	EPA 5030C	996	GC/MS T	2
EPA 8270C	EPA 3510C	923	GC/MS TT	1
SM 2320B	N/A	688	PH1/BUR03	1
SM 2540 C	N/A	1009	SC 2	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	688	UV 7	1
SM 4500 P B/E	N/A	857	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	857	UV 7	1
SM 5540C	N/A	990	UV 9	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

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-06-2184 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

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **15-06-2184**

DATE: 6/26/15
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: RSmith@geosyntec.com

CLIENT PROJECT NAME / NO.: CG Roxane
P.O. NO.:
PROJECT CONTACT: Ryan Smith
LAB CONTACT OR QUOTE NO.: Steve Nowak
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT) Kenjo Agustson

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD:
☐ COELT EDF ☒ OTHER Geosyntec specific EDP

SPECIAL INSTRUCTIONS:
1 Cooler w/ this COC

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(g) ☐ GRO	TPH(d) ☐ DRO ~~MBAS~~	~~TPH ☐ C6-C36 ☐ C6-C44~~ Anions/Gen Min	TPH ~~Total Phos & Phosphate~~	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	~~22 metals~~ CAM 17 ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	Total N, Nitrate, Nitrite, NH4 TKN		TDS	
1	AP-4-10-062515	6/25/15	14:35	W	14	6	8			X	X	X		X			X				X		X		X
2	QCTB-01-062515	6/25/15		W	2		2							X											

Relinquished by: (Signature)	6/26/15	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: 6/29/15	Time: 1010

2014-07-01 Revision

Return to Contents

2184

FedEx Express US Airbill

FedEx Tracking Number 8668 6450 1936

0200

Recipient's Copy

1 From

Date

Sender's Name Phone

Company

Address

Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name Phone

Company

Recipient's Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City State ZIP

8668 6450 1936

4a Express Package Service *Packages up to 150 lbs.*

- ☐ 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.
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

4b Express Freight Service *Packages over 150 lbs.*

- ☐ FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation:

** To most locations.

5 Packaging

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- ☐ FedEx Box
- ☐ FedEx Tube
- ☐ Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

- ☐ SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- ☐ HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- ☐ HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

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
- ☐ Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

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 | Total Weight | Total Declared Value†

$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

Credit Card Auth.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- ☐ No Signature Required — Package may be left without obtaining a
- ☐ 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 *Fee applies.*

520

FedEx TRK# 0200 8668 6450 1936

MON - 29 JUN AA
STANDARD OVERNIGHT

92 APVA

92841
CA-US
SNA

FID 488702 26JUN15 IYKA 522C1/8A0E/EE4B

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06- 2184

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 06 / 29 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.3°C); Temperature (w/o CF): 16.6 °C (w/ CF): 16.3 °C; ☑ Blank ☐ Sample

☑ Sample(s) outside temperature criteria (PM/APM contacted by: 15)

☐ 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: 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: (3) (Trip Blank Lot Number: 150603B)

Aqueous: ☐ VOA ☑ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☑ 250CGB**s** (2) ☑ 250PB (2) ☑ 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: 836

Reviewed by: 965

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-06- 2184

SAMPLE ANOMALY REPORT

DATE: 06 / 29 / 2015

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)	MBAS
☐ 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.

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: SJG

Reviewed by: 965

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Stephen Nowak

From: Ryan Smith [rsmith@geosyntec.com]
Sent: Monday, June 29, 2015 10:51 AM
To: Stephen Nowak
Cc: Maricris dela Rosa
Subject: RE: ***COC***

Yes, please analyze the samples on this COC for all selected tests. Even tests out of hold time.

Thank you.

Ryan Smith, P.G., C.Hg
Project Geologist

-----Original Message-----
From: Stephen Nowak [mailto:StephenNowak@eurofinsUS.com]
Sent: Monday, June 29, 2015 10:33 AM
To: Ryan Smith
Cc: Maricris dela Rosa
Subject: FW: ***COC***

Ryan-

See attached COC and sample receipt form.
This sample was received today 06/29/15 and the temp is 16.3 deg C- do you still want us to run this sample?

Stephen Nowak
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494
Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

Reminder – We will observe the 4th of July holiday on Friday, July 3rd. Sample Control will be open 0830-1730 to accept samples. We will have limited staff working to handle short-hold analyses; no data will be reported as our Project Managers will not be working, and there is no courier service this day.

The lab will be closed on Saturday, July 4th. Sample Control will not be open to accept samples; FEDEX and GSO are not operating that day. Please do not ship samples for Saturday delivery as they will not be received until Monday.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from any computer. Email transmission cannot be guaranteed to be secure or error free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete. The sender therefore is in no way liable for any errors or omissions in the content of this message which may arise as a result of email transmission. If verification is required, please request a hard copy. We take reasonable precautions to ensure our emails are free from viruses. You need, however, to verify that this email and any attachments are free of viruses, as we can take no responsibility for any computer viruses, which might be transferred by way of this email. We may monitor all email communication through our networks. If you contact us by email, we may store your name and address to facilitate communication.

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07-0357

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: Crystal Geyser Roxane / SB0746

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/20/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: Crystal Geyser Roxane / SB0746
Work Order Number: 15-07-0357

eurofins | Calscience

Work Order Narrative

Work Order: 15-07-0357 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/08/15. They were assigned to Work Order 15-07-0357.

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.

Samples for this project were outside temperature criteria (0-6 deg C). Ryan Smith with Geosyntec authorized the analysis of all samples on 07/08/15- email is attached to Chain of custody record. The EPA 8270C sample container for MW-05-070715 was received broken.

Return to Contents

eurofins | Calscience

Sample Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order:	15-07-0357
		Project Name:	Crystal Geyser Roxane / SB0746
		PO Number:	
		Date/Time Received:	07/08/15 10:30
		Number of Containers:	98
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-07-070615	15-07-0357-1	07/06/15 13:15	12	Aqueous
MW-06-070615	15-07-0357-2	07/06/15 15:30	12	Aqueous
MW-04-070615	15-07-0357-3	07/06/15 16:45	12	Aqueous
MW-04-070615-DUP	15-07-0357-4	07/06/15 16:45	12	Aqueous
MW-01-070715	15-07-0357-5	07/07/15 08:37	12	Aqueous
MW-05-070715	15-07-0357-6	07/07/15 09:44	12	Aqueous
MW-03-070715	15-07-0357-7	07/07/15 11:11	12	Aqueous
MW-08-070715	15-07-0357-8	07/07/15 12:31	12	Aqueous
QCTB-01-070715	15-07-0357-9	07/06/15 00:00	2	Aqueous

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-07-070615 (15-07-0357-1)						
Calcium	6.56		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.69		0.100	mg/L	EPA 200.7	N/A
Sodium	145		0.500	mg/L	EPA 200.7	N/A
Chloride	72		1.0	mg/L	EPA 300.0	N/A
Sulfate	58		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0479		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Copper	0.0372		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0293		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.0197		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0483		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0142		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0162		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0301		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Nickel	0.0105		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.0218		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0226		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	248		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1040		10.0	mg/L	SM 2540 C	N/A
pH	8.86	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	1.3		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.58		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.8		0.31	mg/L	SM 4500 P B/E	N/A
Total Nitrogen	1.3		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:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-06-070615 (15-07-0357-2)						
Calcium	48.5		0.100	mg/L	EPA 200.7	N/A
Magnesium	8.91		0.100	mg/L	EPA 200.7	N/A
Sodium	192		0.500	mg/L	EPA 200.7	N/A
Chloride	190		2.0	mg/L	EPA 300.0	N/A
Sulfate	48		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0171		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0104		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0183		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0104		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	180		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	635		1.00	mg/L	SM 2540 C	N/A
pH	8.15	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	0.84		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.49		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	0.86		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:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		Page 3 of 7

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-070615 (15-07-0357-3)						
Calcium	7.40		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.10		0.100	mg/L	EPA 200.7	N/A
Sodium	934		5.00	mg/L	EPA 200.7	N/A
Chloride	20		2.0	mg/L	EPA 300.0	N/A
Sulfate	880		20	mg/L	EPA 300.0	N/A
Antimony	0.0247		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.742		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0103		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Copper	0.0482		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.430		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Silver	0.00680		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.217		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Antimony	0.0160		0.0150	mg/L	EPA 6010B	EPA 3010A Total
Arsenic	0.821		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0244		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0433		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.476		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.249		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0249		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	916		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	2340		10.0	mg/L	SM 2540 C	N/A
pH	10.34	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	1.4		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	1.6		0.20	mg/L	SM 4500 P B/E	N/A
Total Phosphate	4.8		0.62	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.11		0.10	mg/L	SM 4500-NH3 B/C	N/A
Nitrate-Nitrite (as N)	0.23		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	1.6		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:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-070615-DUP (15-07-0357-4)						
Calcium	7.34		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.10		0.100	mg/L	EPA 200.7	N/A
Sodium	909		5.00	mg/L	EPA 200.7	N/A
Chloride	16		2.0	mg/L	EPA 300.0	N/A
Sulfate	890		20	mg/L	EPA 300.0	N/A
Antimony	0.0203		0.0150	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.757		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Copper	0.0361		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.439		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Silver	0.00791		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.222		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.816		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0238		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0418		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.471		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.248		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0134		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	916		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	2360		10.0	mg/L	SM 2540 C	N/A
pH	10.35	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	1.4		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	1.6		0.20	mg/L	SM 4500 P B/E	N/A
Total Phosphate	4.9		0.62	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.11		0.10	mg/L	SM 4500-NH3 B/C	N/A
Nitrate-Nitrite (as N)	0.23		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	1.6		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:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		Page 5 of 7

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-01-070715 (15-07-0357-5)						
Calcium	37.7		0.100	mg/L	EPA 200.7	N/A
Magnesium	3.63		0.100	mg/L	EPA 200.7	N/A
Sodium	21.8		0.500	mg/L	EPA 200.7	N/A
Chloride	3.1		1.0	mg/L	EPA 300.0	N/A
Sulfate	26		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0136		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0228		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0110		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0176		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0268		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0119		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	114		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	230		1.00	mg/L	SM 2540 C	N/A
pH	7.58	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Nitrate-Nitrite (as N)	0.55		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.54		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:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		Page 6 of 7

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-05-070715 (15-07-0357-6)						
Calcium	16.3		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.37		0.100	mg/L	EPA 200.7	N/A
Sodium	716		0.500	mg/L	EPA 200.7	N/A
Chloride	19		5.0	mg/L	EPA 300.0	N/A
Sulfate	830		10	mg/L	EPA 300.0	N/A
Arsenic	0.707		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0143		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Copper	0.0505		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.437		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Silver	0.00559		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Vanadium	0.197		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0103		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.730		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0172		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0473		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.448		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.208		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0375		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	556		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	1960		10.0	mg/L	SM 2540 C	N/A
pH	9.55	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	1.8		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	1.6		0.20	mg/L	SM 4500 P B/E	N/A
Total Phosphate	4.9		0.62	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.39		0.10	mg/L	SM 4500-NH3 B/C	N/A
MBAS	0.11		0.10	mg/L	SM 5540C	N/A
Total Nitrogen	1.8		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:	15-07-0357
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser Roxane / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/08/15
Attn:	Ryan Smith		Page 7 of 7

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-03-070715 (15-07-0357-7)						
Calcium	20.9		0.100	mg/L	EPA 200.7	N/A
Magnesium	5.19		0.100	mg/L	EPA 200.7	N/A
Sodium	41.3		0.500	mg/L	EPA 200.7	N/A
Chloride	9.7		1.0	mg/L	EPA 300.0	N/A
Sulfate	12		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0205		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0201		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	120		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	245		1.00	mg/L	SM 2540 C	N/A
pH	7.80	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	1.1		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.31		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.94		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.56		0.10	mg/L	SM 4500-NH3 B/C	N/A
Total Nitrogen	1.1		0.50	mg/L	Total Nitrogen by Calc	N/A
MW-08-070715 (15-07-0357-8)						
Calcium	22.3		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.49		0.100	mg/L	EPA 200.7	N/A
Sodium	30.8		0.500	mg/L	EPA 200.7	N/A
Chloride	4.3		1.0	mg/L	EPA 300.0	N/A
Sulfate	4.2		1.0	mg/L	EPA 300.0	N/A
Barium	0.0226		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Zinc	0.0136		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0112		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0269		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	120		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	205		1.00	mg/L	SM 2540 C	N/A
pH	7.47	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	0.84		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	0.43		0.31	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.39		0.10	mg/L	SM 4500-NH3 B/C	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.

* MDL is shown

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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-07-070615	**15-07-0357-1-D**	**07/06/15 13:15**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 12:06**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	72	1.0	1.00	
Sulfate	58	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-D**	**07/06/15 15:30**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 12:30**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	48	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-D**	**07/06/15 15:30**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 17:21**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	190	2.0	2.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-D**	**07/06/15 16:45**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 12:47**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	20	2.0	2.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-D**	**07/06/15 16:45**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 17:38**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	880	20	20.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-D**	**07/06/15 16:45**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 13:04**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	16	2.0	2.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-D**	**07/06/15 16:45**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 17:56**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	890	20	20.0	

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: N/A
Method: EPA 300.0
Units: mg/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-070715	**15-07-0357-5-D**	**07/07/15 08:37**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 13:21**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	3.1	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
MW-05-070715	**15-07-0357-6-D**	**07/07/15 09:44**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 13:39**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	19	5.0	5.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-070715	**15-07-0357-6-D**	**07/07/15 09:44**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 18:13**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	830	10	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-070715	**15-07-0357-7-D**	**07/07/15 11:11**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 13:56**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	9.7	1.0	1.00	
Sulfate	12	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-070715	**15-07-0357-8-D**	**07/07/15 12:31**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 14:13**	**150708L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	4.3	1.0	1.00	
Sulfate	4.2	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	**099-12-906-5882**	**N/A**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 11:07**	**150708L01**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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-07-070615	**15-07-0357-1-I**	**07/06/15 13:15**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:11**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	6.56	0.100	1.00	
Magnesium	1.69	0.100	1.00	
Sodium	145	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-I**	**07/06/15 15:30**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:13**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	48.5	0.100	1.00	
Magnesium	8.91	0.100	1.00	
Sodium	192	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-I**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:15**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	7.40	0.100	1.00	
Magnesium	1.10	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-I**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 18:08**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Sodium	934	5.00	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-I**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:17**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	7.34	0.100	1.00	
Magnesium	1.10	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-I**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 18:11**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Sodium	909	5.00	10.0	

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: N/A
Method: EPA 200.7
Units: mg/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-070715	**15-07-0357-5-I**	**07/07/15 08:37**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:19**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	37.7	0.100	1.00	
Magnesium	3.63	0.100	1.00	
Sodium	21.8	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-070715	**15-07-0357-6-I**	**07/07/15 09:44**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:24**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	16.3	0.100	1.00	
Magnesium	2.37	0.100	1.00	
Sodium	716	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-070715	**15-07-0357-7-I**	**07/07/15 11:11**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:27**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	20.9	0.100	1.00	
Magnesium	5.19	0.100	1.00	
Sodium	41.3	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-070715	**15-07-0357-8-I**	**07/07/15 12:31**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:29**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	22.3	0.100	1.00	
Magnesium	1.49	0.100	1.00	
Sodium	30.8	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	**097-01-012-6255**	**N/A**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:45**	**150710LA3**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-070615	**15-07-0357-1-I**	**07/06/15 13:15**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/10/15 14:31**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0483	0.0100	1.00	
Barium	0.0142	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	0.0162	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0301	0.0100	1.00	
Nickel	0.0105	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.0218	0.0100	1.00	
Zinc	0.0226	0.0100	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-I**	**07/06/15 15:30**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:36**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0183	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	0.0104	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3010A Total
Method: EPA 6010B
Units: mg/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-I**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:39**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0160	0.0150	1.00	
Arsenic	0.821	0.0100	1.00	
Barium	0.0244	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	0.0433	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.476	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	0.249	0.0100	1.00	
Zinc	0.0249	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-04-070615-DUP	**15-07-0357-4-I**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:41**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.816	0.0100	1.00	
Barium	0.0238	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	0.0418	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.471	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	0.248	0.0100	1.00	
Zinc	0.0134	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-01-070715	**15-07-0357-5-I**	**07/07/15 08:37**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:44**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0176	0.0100	1.00	
Barium	0.0268	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	0.0119	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-05-070715	**15-07-0357-6-I**	**07/07/15 09:44**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:46**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.730	0.0100	1.00	
Barium	0.0172	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	0.0473	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.448	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	0.208	0.0100	1.00	
Zinc	0.0375	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-03-070715	**15-07-0357-7-I**	**07/07/15 11:11**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:49**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0201	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-08-070715	**15-07-0357-8-I**	**07/07/15 12:31**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/11/15 01:52**	**150708LA7**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0112	0.0100	1.00	
Barium	0.0269	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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	**097-01-003-15195**	**N/A**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/09/15 12:41**	**150708LA7**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-07-070615	**15-07-0357-1-H**	**07/06/15 13:15**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 19:53**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0479	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	0.0372	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.0293	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	0.0197	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-070615	**15-07-0357-1-H**	**07/06/15 13:15**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/17/15 13:50**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Barium	ND	0.0100	1.00	
Zinc	ND	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-06-070615	**15-07-0357-2-H**	**07/06/15 15:30**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 19:56**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0171	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	0.0104	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	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-H**	**07/06/15 15:30**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/17/15 13:52**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Zinc	ND	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-04-070615	**15-07-0357-3-H**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 19:58**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0247	0.0150	1.00	
Arsenic	0.742	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	0.0482	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.430	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	0.00680	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.217	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-H**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/17/15 13:55**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Barium	0.0103	0.0100	1.00	
Zinc	ND	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-04-070615-DUP	**15-07-0357-4-H**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:01**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.0203	0.0150	1.00	
Arsenic	0.757	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	0.0361	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.439	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	0.00791	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.222	0.0100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-H**	**07/06/15 16:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/17/15 13:57**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Barium	ND	0.0100	1.00	
Zinc	ND	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-01-070715	**15-07-0357-5-H**	**07/07/15 08:37**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:04**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0136	0.0100	1.00	
Barium	0.0228	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	0.0110	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-05-070715	**15-07-0357-6-K**	**07/07/15 09:44**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:07**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.707	0.0100	1.00	
Barium	0.0143	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	0.0505	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.437	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	0.00559	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	0.197	0.0100	1.00	
Zinc	0.0103	0.0100	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-03-070715	**15-07-0357-7-H**	**07/07/15 11:11**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:15**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0205	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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
MW-08-070715	**15-07-0357-8-H**	**07/07/15 12:31**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:17**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	0.0226	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	0.0136	0.0100	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3005A Filt.
Method: EPA 6010B
Units: mg/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-003-15199**	**N/A**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 17:49**	**150710LA5F**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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-07-070615	**15-07-0357-1-I**	**07/06/15 13:15**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:47**	**150710LA2**

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-06-070615	**15-07-0357-2-I**	**07/06/15 15:30**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:49**	**150710LA2**

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-04-070615	**15-07-0357-3-I**	**07/06/15 16:45**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:51**	**150710LA2**

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-04-070615-DUP	**15-07-0357-4-I**	**07/06/15 16:45**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:53**	**150710LA2**

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-01-070715	**15-07-0357-5-I**	**07/07/15 08:37**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 22:00**	**150710LA2**

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-05-070715	**15-07-0357-6-I**	**07/07/15 09:44**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 22:02**	**150710LA2**

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-03-070715	**15-07-0357-7-I**	**07/07/15 11:11**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 22:05**	**150710LA2**

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-08-070715	**15-07-0357-8-I**	**07/07/15 12:31**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 22:07**	**150710LA2**

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		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
		Units:	mg/L
Project: Crystal Geyser Roxane / SB0746			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	**099-04-008-7494**	**N/A**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:26**	**150710LA2**

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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
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-07-070615	**15-07-0357-1-H**	**07/06/15 13:15**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:53**	**150710LA1F**

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-06-070615	**15-07-0357-2-H**	**07/06/15 15:30**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:55**	**150710LA1F**

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-04-070615	**15-07-0357-3-H**	**07/06/15 16:45**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:57**	**150710LA1F**

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-04-070615-DUP	**15-07-0357-4-H**	**07/06/15 16:45**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:00**	**150710LA1F**

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-01-070715	**15-07-0357-5-H**	**07/07/15 08:37**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:06**	**150710LA1F**

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-05-070715	**15-07-0357-6-H**	**07/07/15 09:44**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:08**	**150710LA1F**

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-03-070715	**15-07-0357-7-H**	**07/07/15 11:11**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:46**	**150710LA1F**

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-08-070715	**15-07-0357-8-H**	**07/07/15 12:31**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:11**	**150710LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
		Units:	mg/L
Project: Crystal Geyser Roxane / SB0746			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	**099-15-763-581**	**N/A**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:42**	**150710LA1F**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-070615	**15-07-0357-1-M**	**07/06/15 13:15**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 12:57**	**150709L02**

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	47	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	47	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	47	1.00	
2,4-Dinitrophenol	ND	47	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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 3 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	50-110	
2-Fluorophenol	52	20-110	
Nitrobenzene-d5	80	40-110	
p-Terphenyl-d14	78	50-135	
Phenol-d6	32	10-115	
2,4,6-Tribromophenol	80	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-M**	**07/06/15 15:30**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 13:16**	**150709L02**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 6 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	50-110	
2-Fluorophenol	55	20-110	
Nitrobenzene-d5	83	40-110	
p-Terphenyl-d14	82	50-135	
Phenol-d6	33	10-115	
2,4,6-Tribromophenol	88	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-M**	**07/06/15 16:45**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 13:34**	**150709L02**

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	23	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	23	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	23	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	23	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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 9 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	50-110	
2-Fluorophenol	50	20-110	
Nitrobenzene-d5	71	40-110	
p-Terphenyl-d14	72	50-135	
Phenol-d6	31	10-115	
2,4,6-Tribromophenol	75	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-M**	**07/06/15 16:45**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 13:53**	**150709L02**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 12 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	50-110	
2-Fluorophenol	51	20-110	
Nitrobenzene-d5	72	40-110	
p-Terphenyl-d14	72	50-135	
Phenol-d6	31	10-115	
2,4,6-Tribromophenol	76	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-070715	**15-07-0357-5-N**	**07/07/15 08:37**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 14:12**	**150709L02**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 15 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	75	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	82	40-110	
p-Terphenyl-d14	80	50-135	
Phenol-d6	34	10-115	
2,4,6-Tribromophenol	83	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-070715	**15-07-0357-7-N**	**07/07/15 11:11**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 14:30**	**150709L02**

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	47	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	47	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	47	1.00	
2,4-Dinitrophenol	ND	47	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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 18 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	78	50-110	
2-Fluorophenol	56	20-110	
Nitrobenzene-d5	84	40-110	
p-Terphenyl-d14	81	50-135	
Phenol-d6	33	10-115	
2,4,6-Tribromophenol	85	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-070715	**15-07-0357-8-N**	**07/07/15 12:31**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 14:49**	**150709L02**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 21 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	77	50-110	
2-Fluorophenol	57	20-110	
Nitrobenzene-d5	83	40-110	
p-Terphenyl-d14	80	50-135	
Phenol-d6	33	10-115	
2,4,6-Tribromophenol	85	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-45**	**N/A**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 12:37**	**150709L02**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 24 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	50-110	
2-Fluorophenol	61	20-110	
Nitrobenzene-d5	83	40-110	
p-Terphenyl-d14	81	50-135	
Phenol-d6	36	10-115	
2,4,6-Tribromophenol	87	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-070615	**15-07-0357-1-A**	**07/06/15 13:15**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 12:35**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	79-120	
Dibromofluoromethane	103	80-126	
1,2-Dichloroethane-d4	109	80-124	
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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-070615	**15-07-0357-2-A**	**07/06/15 15:30**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 13:05**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	93	79-120	
Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	111	80-124	
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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615	**15-07-0357-3-A**	**07/06/15 16:45**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 13:35**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	79-120	
Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	112	80-124	
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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-070615-DUP	**15-07-0357-4-A**	**07/06/15 16:45**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 14:06**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	79-120	
Dibromofluoromethane	105	80-126	
1,2-Dichloroethane-d4	113	80-124	
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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-070715	**15-07-0357-5-A**	**07/07/15 08:37**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 14:37**	**150709L002**

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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 10 of 20

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	79-120	
Dibromofluoromethane	104	80-126	
1,2-Dichloroethane-d4	115	80-124	
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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-070715	**15-07-0357-6-A**	**07/07/15 09:44**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 15:07**	**150709L002**

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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 12 of 20

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	79-120	
Dibromofluoromethane	108	80-126	
1,2-Dichloroethane-d4	114	80-124	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: Crystal Geyser Roxane / SB0746			Page 13 of 20

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-070715	**15-07-0357-7-A**	**07/07/15 11:11**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 15:38**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	79-120	
Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	111	80-124	
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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-070715	**15-07-0357-8-A**	**07/07/15 12:31**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 16:09**	**150709L002**

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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Crystal Geyser Roxane / SB0746		Page 16 of 20

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	79-120	
Dibromofluoromethane	105	80-126	
1,2-Dichloroethane-d4	115	80-124	
Toluene-d8	102	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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-01-070715	**15-07-0357-9-A**	**07/06/15 00:00**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 12:01**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	79-120	
Dibromofluoromethane	103	80-126	
1,2-Dichloroethane-d4	109	80-124	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: Crystal Geyser Roxane / SB0746			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	**099-14-316-2193**	**N/A**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 11:30**	**150709L002**

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Crystal Geyser Roxane / SB0746

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	79-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	109	80-124	
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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-07-070615	**15-07-0357-1**	**07/06/15 13:15**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	248	5.00	1.00		mg/L	N/A	07/10/15	SM 2320B
Solids, Total Dissolved	1040	10.0	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	8.86	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.3	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	0.58	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	1.8	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00	BU	mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	1.3	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

MW-06-070615	**15-07-0357-2**	**07/06/15 15:30**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	180	5.00	1.00		mg/L	N/A	07/10/15	SM 2320B
Solids, Total Dissolved	635	1.00	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	8.15	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.84	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	0.49	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	1.5	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	0.86	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

MW-04-070615	**15-07-0357-3**	**07/06/15 16:45**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	916	5.00	1.00		mg/L	N/A	07/10/15	SM 2320B
Solids, Total Dissolved	2340	10.0	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	10.34	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.4	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	1.6	0.20	2.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	4.8	0.62	2.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	0.11	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.23	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	1.6	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-04-070615-DUP	**15-07-0357-4**	**07/06/15 16:45**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	916	5.00	1.00		mg/L	N/A	07/10/15	SM 2320B
Solids, Total Dissolved	2360	10.0	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	10.35	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.4	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	1.6	0.20	2.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	4.9	0.62	2.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	0.11	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.23	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	1.6	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

MW-01-070715	15-07-0357-5	07/07/15 08:37	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	114	5.00	1.00		mg/L	N/A	07/10/15	SM 2320B
Solids, Total Dissolved	230	1.00	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	7.58	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.55	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	0.54	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

MW-05-070715	15-07-0357-6	07/07/15 09:44	Aqueous

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	556	5.00	1.00		mg/L	N/A	07/10/15	SM 2320B
Solids, Total Dissolved	1960	10.0	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	9.55	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.8	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	1.6	0.20	2.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	4.9	0.62	2.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	0.39	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	0.11	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	1.8	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-03-070715	**15-07-0357-7**	**07/07/15 11:11**	**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	07/10/15	SM 2320B
Solids, Total Dissolved	245	1.00	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	7.80	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.1	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	0.31	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	0.94	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	0.56	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	1.1	0.50	1.00		mg/L	N/A	07/15/15	Total Nitrogen by Calc

MW-08-070715	**15-07-0357-8**	**07/07/15 12:31**	**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	07/10/15	SM 2320B
Solids, Total Dissolved	205	1.00	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
pH	7.47	0.01	1.00	BV,BU	pH units	N/A	07/08/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.84	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	0.14	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	0.43	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	0.39	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
Total Nitrogen	0.84	0.50	1.00		mg/L	N/A	07/15/15	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	07/10/15	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	07/08/15	07/08/15	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	07/11/15	07/11/15	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/14/15	07/14/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C
MBAS	ND	0.10	1.00		mg/L	07/08/15	07/08/15	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 300.0
Project: Crystal Geyser Roxane / SB0746		Page 1 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-08-070715	**Sample**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 14:13**	**150708S01**
MW-08-070715	**Matrix Spike**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 14:31**	**150708S01**
MW-08-070715	**Matrix Spike Duplicate**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 14:48**	**150708S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	4.285	50.00	55.94	103	55.89	103	80-120	0	0-20	
Sulfate	4.163	50.00	55.91	104	55.69	103	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 4500 P B/E
Project: Crystal Geyser Roxane / SB0746		Page 2 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0460-2	**Sample**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPS1**
15-07-0460-2	**Matrix Spike**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPS1**
15-07-0460-2	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	ND	0.4000	0.4590	115	0.4530	113	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:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: Crystal Geyser Roxane / SB0746			Page 3 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0460-2	**Sample**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4S1**
15-07-0460-2	**Matrix Spike**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4S1**
15-07-0460-2	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	ND	1.220	1.400	115	1.390	114	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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 4500-NO3 E
Project: Crystal Geyser Roxane / SB0746		Page 4 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-03-070715	**Sample**	**Aqueous**	**UV 7**	**07/08/15**	**07/08/15 14:53**	**F0708NO3S1**
MW-03-070715	**Matrix Spike**	**Aqueous**	**UV 7**	**07/08/15**	**07/08/15 14:53**	**F0708NO3S1**
MW-03-070715	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/08/15**	**07/08/15 14:53**	**F0708NO3S1**

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	0.5150	103	0.5180	104	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:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 5540C
Project: Crystal Geyser Roxane / SB0746		Page 5 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-07-070615	**Sample**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 13:11**	**F0708SURS1**
MW-07-070615	**Matrix Spike**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 13:11**	**F0708SURS1**
MW-07-070615	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 13:11**	**F0708SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9100	91	0.8300	83	70-130	9	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: Crystal Geyser Roxane / SB0746			Page 6 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-08-070715	**Sample**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 15:10**	**F0708SURS2**
MW-08-070715	**Matrix Spike**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 15:10**	**F0708SURS2**
MW-08-070715	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 15:10**	**F0708SURS2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.8300	83	0.8400	84	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:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: Crystal Geyser Roxane / SB0746			Page 7 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0460-2	**Sample**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:07**	**150710SA3A**
15-07-0460-2	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:01**	**150710SA3A**
15-07-0460-2	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:03**	**150710SA3A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	23.11	0.5000	23.87	4X	23.80	4X	80-120	4X	0-20	Q
Magnesium	2.541	0.5000	3.119	4X	3.193	4X	80-120	4X	0-20	Q
Sodium	9.416	5.000	14.89	109	14.84	108	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: Crystal Geyser Roxane / SB0746			Page 8 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-07-070615	**Sample**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/10/15 14:31**	**150708SA7**
MW-07-070615	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/09/15 12:50**	**150708SA7**
MW-07-070615	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/09/15 12:52**	**150708SA7**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.6021	120	0.5929	119	72-132	2	0-10	
Arsenic	0.04831	0.5000	0.6685	124	0.6562	122	80-140	2	0-11	
Barium	0.01418	0.5000	0.5982	117	0.5747	112	87-123	4	0-6	
Beryllium	ND	0.5000	0.6033	121	0.5811	116	89-119	4	0-8	3
Cadmium	ND	0.5000	0.6226	125	0.6007	120	82-124	4	0-7	3
Chromium	ND	0.5000	0.6039	121	0.5829	117	86-122	4	0-8	
Cobalt	ND	0.5000	0.6516	130	0.6365	127	83-125	2	0-7	3
Copper	0.01616	0.5000	0.6785	132	0.6526	127	78-126	4	0-7	3
Lead	ND	0.5000	0.6132	123	0.5993	120	84-120	2	0-7	3
Molybdenum	0.03014	0.5000	0.6399	122	0.6214	118	78-126	3	0-7	
Nickel	0.01054	0.5000	0.6438	127	0.6315	124	84-120	2	0-7	3
Selenium	ND	0.5000	0.5773	115	0.5745	115	79-127	0	0-9	
Silver	ND	0.2500	0.2912	116	0.2803	112	86-128	4	0-7	
Thallium	ND	0.5000	0.6362	127	0.6256	125	79-121	2	0-8	3
Vanadium	0.02176	0.5000	0.6296	122	0.6069	117	88-118	4	0-7	3
Zinc	0.02264	0.5000	0.6857	133	0.6492	125	89-131	5	0-8	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: Crystal Geyser Roxane / SB0746			Page 9 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-01-070715	**Sample**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:04**	**150710SA5**
MW-01-070715	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 18:11**	**150710SA5**
MW-01-070715	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 18:13**	**150710SA5**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.5337	107	0.5067	101	72-132	5	0-10	
Arsenic	0.01365	0.5000	0.5662	111	0.5398	105	80-140	5	0-11	
Barium	0.02283	0.5000	0.5817	112	0.5701	109	87-123	2	0-6	
Beryllium	ND	0.5000	0.5375	108	0.5277	106	89-119	2	0-8	
Cadmium	ND	0.5000	0.5367	107	0.5277	106	82-124	2	0-7	
Chromium	ND	0.5000	0.5576	112	0.5469	109	86-122	2	0-8	
Cobalt	ND	0.5000	0.5549	111	0.5455	109	83-125	2	0-7	
Copper	ND	0.5000	0.5406	108	0.5305	106	78-126	2	0-7	
Lead	ND	0.5000	0.5423	108	0.5196	104	84-120	4	0-7	
Molybdenum	0.01096	0.5000	0.5483	107	0.5275	103	78-126	4	0-7	
Nickel	ND	0.5000	0.5418	108	0.5167	103	84-120	5	0-7	
Selenium	ND	0.5000	0.5360	107	0.5184	104	79-127	3	0-9	
Silver	ND	0.2500	0.2759	110	0.2711	108	86-128	2	0-7	
Thallium	ND	0.5000	0.5021	100	0.4920	98	79-121	2	0-8	
Vanadium	ND	0.5000	0.5576	112	0.5479	110	88-118	2	0-7	
Zinc	ND	0.5000	0.5619	112	0.5540	111	89-131	1	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: Crystal Geyser Roxane / SB0746			Page 10 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0460-1	**Sample**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:36**	**150710SA2**
15-07-0460-1	**Matrix Spike**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:38**	**150710SA2**
15-07-0460-1	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:40**	**150710SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009613	96	0.009725	97	57-141	1	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 7470A Filt.
	Method:	EPA 7470A
Project: Crystal Geyser Roxane / SB0746		Page 11 of 11

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-03-070715	**Sample**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:46**	**150710SA1**
MW-03-070715	**Matrix Spike**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:48**	**150710SA1**
MW-03-070715	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:51**	**150710SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009842	98	0.009634	96	57-141	2	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: Crystal Geyser Roxane / SB0746			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-07-0005-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/10/15 19:25**	**F0710ALKD2**
15-07-0005-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/10/15 19:25**	**F0710ALKD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	276.0	275.0	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: Crystal Geyser Roxane / SB0746			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MW-05-070715	**Sample**	**Aqueous**	**SC 2**	**07/08/15 00:00**	**07/08/15 19:00**	**F0708TDSD4**
MW-05-070715	**Sample Duplicate**	**Aqueous**	**SC 2**	**07/08/15 00:00**	**07/08/15 19:00**	**F0708TDSD4**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	1960	1925	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 H+ B
Project: Crystal Geyser Roxane / SB0746			Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-07-0341-1	**Sample**	**Aqueous**	**PH 1**	**N/A**	**07/08/15 17:43**	**F0708PHD1**
15-07-0341-1	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**07/08/15 17:43**	**F0708PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	6.950	7.000	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: Crystal Geyser Roxane / SB0746			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-07-0347-1	**Sample**	**Aqueous**	**BUR05**	**07/11/15 00:00**	**07/11/15 16:02**	**F0711TKND1**
15-07-0347-1	**Sample Duplicate**	**Aqueous**	**BUR05**	**07/11/15 00:00**	**07/11/15 16:02**	**F0711TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	129.9	128.8	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: Crystal Geyser Roxane / SB0746			Page 1 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-5882	**LCS**	**Aqueous**	**IC 15**	**N/A**	**07/08/15 11:24**	**150708L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	47.66	95	90-110	
Sulfate	50.00	48.21	96	90-110	

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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-747	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/10/15 19:25**	**F0710ALKB2**
099-15-859-747	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/10/15 19:25**	**F0710ALKB2**

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	100.0	100	80-120	0	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: N/A
Method: SM 2540 C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4660	**LCS**	**Aqueous**	**SC 2**	**07/08/15**	**07/08/15 19:00**	**F0708TDSL3**
099-12-180-4660	**LCSD**	**Aqueous**	**SC 2**	**07/08/15**	**07/08/15 19:00**	**F0708TDSL3**

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:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: Crystal Geyser Roxane / SB0746			Page 4 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2674	**LCS**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPL1**
099-05-098-2674	**LCSD**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.3940	98	0.3910	98	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: Crystal Geyser Roxane / SB0746

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: N/A
Method: SM 4500 P B/E

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-163	**LCS**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4L1**
099-14-276-163	**LCSD**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.210	99	1.200	98	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:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NH3 B/C
Project: Crystal Geyser Roxane / SB0746			Page 6 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2153	**LCS**	**Aqueous**	**BUR05**	**07/14/15**	**07/14/15 15:37**	**F0714NH3L1**
099-12-814-2153	**LCSD**	**Aqueous**	**BUR05**	**07/14/15**	**07/14/15 15:37**	**F0714NH3L1**

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	4.424	88	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:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: Crystal Geyser Roxane / SB0746			Page 7 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-120-1828	**LCS**	**Aqueous**	**UV 7**	**07/08/15**	**07/08/15 14:53**	**F0708NO3L1**
099-05-120-1828	**LCSD**	**Aqueous**	**UV 7**	**07/08/15**	**07/08/15 14:53**	**F0708NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5020	100	0.5010	100	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: Crystal Geyser Roxane / SB0746			Page 8 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-093-2892	**LCS**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 13:11**	**F0708SURL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	1.000	0.8500	85	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: Crystal Geyser Roxane / SB0746			Page 9 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-093-2893	**LCS**	**Aqueous**	**UV 9**	**07/08/15**	**07/08/15 15:10**	**F0708SURL2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	1.000	0.8800	88	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: Crystal Geyser Roxane / SB0746			Page 10 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6255	**LCS**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:47**	**150710LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5013	100	85-115	
Magnesium	0.5000	0.5340	107	85-115	
Sodium	5.000	4.936	99	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: Crystal Geyser Roxane / SB0746			Page 11 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15195	**LCS**	**Aqueous**	**ICP 7300**	**07/08/15**	**07/09/15 12:44**	**150708LA7**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.5147	103	80-120	73-127	
Arsenic	0.5000	0.4986	100	80-120	73-127	
Barium	0.5000	0.5345	107	80-120	73-127	
Beryllium	0.5000	0.5013	100	80-120	73-127	
Cadmium	0.5000	0.5368	107	80-120	73-127	
Chromium	0.5000	0.5508	110	80-120	73-127	
Cobalt	0.5000	0.5680	114	80-120	73-127	
Copper	0.5000	0.5512	110	80-120	73-127	
Lead	0.5000	0.5527	111	80-120	73-127	
Molybdenum	0.5000	0.5319	106	80-120	73-127	
Nickel	0.5000	0.5679	114	80-120	73-127	
Selenium	0.5000	0.5080	102	80-120	73-127	
Silver	0.2500	0.2651	106	80-120	73-127	
Thallium	0.5000	0.5758	115	80-120	73-127	
Vanadium	0.5000	0.5333	107	80-120	73-127	
Zinc	0.5000	0.5208	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

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: Crystal Geyser Roxane / SB0746			Page 12 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15199	**LCS**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 17:52**	**150710LA5F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4658	93	80-120	73-127	
Arsenic	0.5000	0.4795	96	80-120	73-127	
Barium	0.5000	0.5330	107	80-120	73-127	
Beryllium	0.5000	0.4905	98	80-120	73-127	
Cadmium	0.5000	0.5130	103	80-120	73-127	
Chromium	0.5000	0.5360	107	80-120	73-127	
Cobalt	0.5000	0.5433	109	80-120	73-127	
Copper	0.5000	0.5157	103	80-120	73-127	
Lead	0.5000	0.5107	102	80-120	73-127	
Molybdenum	0.5000	0.4951	99	80-120	73-127	
Nickel	0.5000	0.5192	104	80-120	73-127	
Selenium	0.5000	0.4758	95	80-120	73-127	
Silver	0.2500	0.2613	105	80-120	73-127	
Thallium	0.5000	0.5199	104	80-120	73-127	
Vanadium	0.5000	0.5197	104	80-120	73-127	
Zinc	0.5000	0.4988	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

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: Crystal Geyser Roxane / SB0746			Page 13 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7494	**LCS**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:33**	**150710LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009401	94	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/08/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0357
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: Crystal Geyser Roxane / SB0746			Page 14 of 19

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-581	**LCS**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:44**	**150710LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009901	99	85-121	

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

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 3510C
Method: EPA 8270C

Project: Crystal Geyser Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-45	**LCS**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 11:59**	**150709L02**
099-02-008-45	**LCSD**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 12:18**	**150709L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	92.14	92	92.40	92	45-110	34-121	0	0-11	
Acenaphthylene	100.0	90.25	90	90.24	90	50-105	41-114	0	0-20	
Aniline	100.0	94.18	94	94.22	94	50-130	37-143	0	0-20	
Anthracene	100.0	95.22	95	95.54	96	55-110	46-119	0	0-20	
Azobenzene	100.0	88.82	89	89.27	89	50-130	37-143	1	0-20	
Benzidine	100.0	104.7	105	109.8	110	50-130	37-143	5	0-20	
Benzo (a) Anthracene	100.0	91.86	92	91.31	91	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	85.69	86	87.05	87	55-110	46-119	2	0-20	
Benzo (b) Fluoranthene	100.0	85.17	85	89.13	89	45-120	32-132	5	0-20	
Benzo (g,h,i) Perylene	100.0	95.15	95	96.23	96	40-125	26-139	1	0-20	
Benzo (k) Fluoranthene	100.0	86.57	87	83.79	84	45-125	32-138	3	0-20	
Benzoic Acid	100.0	63.14	63	62.79	63	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	96.52	97	94.56	95	30-110	17-123	2	0-20	
Bis(2-Chloroethoxy) Methane	100.0	92.11	92	89.28	89	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	89.70	90	88.67	89	35-110	22-122	1	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	93.21	93	90.38	90	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	98.23	98	99.23	99	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	87.94	88	88.30	88	50-115	39-126	0	0-20	
Butyl Benzyl Phthalate	100.0	98.02	98	98.50	99	45-115	33-127	0	0-20	
4-Chloro-3-Methylphenol	100.0	92.15	92	92.35	92	45-110	34-121	0	0-40	
4-Chloroaniline	100.0	98.69	99	97.17	97	15-110	0-126	2	0-20	
2-Chloronaphthalene	100.0	85.85	86	84.42	84	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	91.24	91	90.76	91	35-105	23-117	1	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	88.64	89	88.62	89	50-110	40-120	0	0-20	
Chrysene	100.0	90.65	91	92.38	92	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	90.72	91	91.43	91	42-120	29-133	1	0-21	
Di-n-Butyl Phthalate	100.0	92.14	92	92.08	92	55-115	45-125	0	0-20	
Di-n-Octyl Phthalate	100.0	92.11	92	93.17	93	35-135	18-152	1	0-20	
Dibenz (a,h) Anthracene	100.0	92.71	93	92.41	92	40-125	26-139	0	0-20	
Dibenzofuran	100.0	89.89	90	91.17	91	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	74.56	75	74.21	74	35-100	24-111	0	0-20	
1,3-Dichlorobenzene	100.0	69.52	70	69.74	70	30-100	18-112	0	0-20	
1,4-Dichlorobenzene	100.0	71.08	71	71.09	71	30-100	18-112	0	0-26	
3,3'-Dichlorobenzidine	100.0	101.0	101	102.0	102	20-110	5-125	1	0-20	
2,4-Dichlorophenol	100.0	92.87	93	93.99	94	50-105	41-114	1	0-20	
Diethyl Phthalate	100.0	93.19	93	93.04	93	40-120	27-133	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: Crystal Geyser Roxane / SB0746		Page 16 of 19

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	90.81	91	90.71	91	25-125	8-142	0	0-20	
2,4-Dimethylphenol	100.0	91.37	91	90.96	91	30-110	17-123	0	0-20	
4,6-Dinitro-2-Methylphenol	100.0	99.77	100	100.4	100	40-130	25-145	1	0-20	
2,4-Dinitrophenol	100.0	100.4	100	99.36	99	15-140	0-161	1	0-20	
2,4-Dinitrotoluene	100.0	95.11	95	93.83	94	50-120	38-132	1	0-36	
2,6-Dinitrotoluene	100.0	93.95	94	93.14	93	50-115	39-126	1	0-20	
Fluoranthene	100.0	91.98	92	91.63	92	55-115	45-125	0	0-20	
Fluorene	100.0	92.96	93	93.64	94	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	77.20	77	75.42	75	25-105	12-118	2	0-20	
Hexachlorobenzene	100.0	93.69	94	92.68	93	50-110	40-120	1	0-20	
Hexachlorocyclopentadiene	100.0	81.77	82	80.17	80	50-130	37-143	2	0-20	
Hexachloroethane	100.0	71.56	72	70.15	70	30-95	19-106	2	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	92.55	93	92.75	93	45-125	32-138	0	0-20	
Isophorone	100.0	90.35	90	90.14	90	50-110	40-120	0	0-20	
2-Methylnaphthalene	100.0	92.50	93	92.62	93	45-105	35-115	0	0-20	
1-Methylnaphthalene	100.0	87.12	87	86.79	87	80-120	73-127	0	0-20	
2-Methylphenol	100.0	91.03	91	90.76	91	40-110	28-122	0	0-20	
3/4-Methylphenol	200.0	167.4	84	168.1	84	30-110	17-123	0	0-20	
N-Nitroso-di-n-propylamine	100.0	113.6	114	114.0	114	35-130	19-146	0	0-13	
N-Nitrosodimethylamine	100.0	78.34	78	76.89	77	25-110	11-124	2	0-20	
N-Nitrosodiphenylamine	100.0	125.0	125	124.8	125	50-110	40-120	0	0-20	X
Naphthalene	100.0	84.41	84	84.05	84	40-100	30-110	0	0-20	
4-Nitroaniline	100.0	108.5	109	108.8	109	35-120	21-134	0	0-20	
3-Nitroaniline	100.0	107.8	108	110.5	111	20-125	2-142	3	0-20	
2-Nitroaniline	100.0	112.4	112	112.0	112	50-115	39-126	0	0-20	
Nitrobenzene	100.0	83.47	83	82.04	82	45-110	34-121	2	0-20	
4-Nitrophenol	100.0	45.56	46	45.70	46	20-150	0-172	0	0-40	
2-Nitrophenol	100.0	89.28	89	90.35	90	40-115	28-128	1	0-20	
Pentachlorophenol	100.0	89.19	89	88.95	89	40-115	28-128	0	0-40	
Phenanthrene	100.0	98.09	98	97.38	97	50-115	39-126	1	0-20	
Phenol	100.0	44.34	44	43.81	44	10-115	0-132	1	0-23	
Pyrene	100.0	98.98	99	99.66	100	50-130	37-143	1	0-20	
Pyridine	100.0	82.30	82	81.81	82	52-115	42-126	1	0-20	
1,2,4-Trichlorobenzene	100.0	78.92	79	79.98	80	35-105	23-117	1	0-21	
2,4,6-Trichlorophenol	100.0	88.28	88	88.81	89	50-115	39-126	1	0-20	
2,4,5-Trichlorophenol	100.0	87.10	87	85.60	86	50-110	40-120	2	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: Crystal Geyser Roxane / SB0746		Page 17 of 19

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
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Date Received: 07/08/15
Work Order: 15-07-0357
Preparation: EPA 5030C
Method: EPA 8260B

Project: Crystal Geyser Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-316-2193	**LCS**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 09:24**	**150709L002**
099-14-316-2193	**LCSD**	**Aqueous**	**GC/MS WW**	**07/09/15**	**07/09/15 09:54**	**150709L002**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	57.15	114	61.80	124	12-150	0-173	8	0-20	
Benzene	50.00	48.69	97	48.73	97	80-120	73-127	0	0-20	
Bromobenzene	50.00	53.83	108	53.08	106	80-120	73-127	1	0-20	
Bromochloromethane	50.00	48.78	98	49.16	98	80-122	73-129	1	0-20	
Bromodichloromethane	50.00	52.57	105	52.38	105	80-123	73-130	0	0-20	
Bromoform	50.00	52.28	105	51.71	103	74-134	64-144	1	0-20	
Bromomethane	50.00	38.28	77	36.08	72	22-160	0-183	6	0-20	
2-Butanone	50.00	57.05	114	56.88	114	44-164	24-184	0	0-20	
n-Butylbenzene	50.00	59.08	118	53.73	107	80-132	71-141	9	0-20	
sec-Butylbenzene	50.00	53.93	108	49.58	99	80-129	72-137	8	0-20	
tert-Butylbenzene	50.00	53.67	107	50.50	101	80-130	72-138	6	0-20	
Carbon Disulfide	50.00	46.10	92	45.38	91	60-126	49-137	2	0-20	
Carbon Tetrachloride	50.00	51.65	103	48.10	96	64-148	50-162	7	0-20	
Chlorobenzene	50.00	47.17	94	46.45	93	80-120	73-127	2	0-20	
Chloroethane	50.00	39.64	79	36.98	74	63-123	53-133	7	0-20	
Chloroform	50.00	47.22	94	46.11	92	79-121	72-128	2	0-20	
Chloromethane	50.00	37.64	75	37.47	75	43-133	28-148	0	0-20	
2-Chlorotoluene	50.00	53.50	107	50.18	100	80-130	72-138	6	0-20	
4-Chlorotoluene	50.00	52.05	104	48.61	97	80-121	73-128	7	0-20	
Dibromochloromethane	50.00	52.82	106	52.06	104	80-125	72-132	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	64.12	128	62.36	125	68-128	58-138	3	0-20	
1,2-Dibromoethane	50.00	55.11	110	54.81	110	80-120	73-127	1	0-20	
Dibromomethane	50.00	51.11	102	50.59	101	80-121	73-128	1	0-20	
1,2-Dichlorobenzene	50.00	50.46	101	48.44	97	80-120	73-127	4	0-20	
1,3-Dichlorobenzene	50.00	51.60	103	48.68	97	80-121	73-128	6	0-20	
1,4-Dichlorobenzene	50.00	49.78	100	46.13	92	80-120	73-127	8	0-20	
Dichlorodifluoromethane	50.00	48.56	97	50.06	100	25-187	0-214	3	0-20	
1,1-Dichloroethane	50.00	46.37	93	46.87	94	75-120	68-128	1	0-20	
1,2-Dichloroethane	50.00	55.08	110	54.45	109	80-123	73-130	1	0-20	
1,1-Dichloroethene	50.00	47.37	95	48.92	98	74-122	66-130	3	0-20	
c-1,2-Dichloroethene	50.00	46.68	93	48.52	97	75-123	67-131	4	0-20	
t-1,2-Dichloroethene	50.00	50.38	101	49.85	100	70-124	61-133	1	0-20	
1,2-Dichloropropane	50.00	48.89	98	50.38	101	80-120	73-127	3	0-20	
1,3-Dichloropropane	50.00	54.57	109	54.83	110	80-120	73-127	0	0-20	
2,2-Dichloropropane	50.00	54.03	108	51.49	103	49-151	32-168	5	0-20	
1,1-Dichloropropene	50.00	45.81	92	44.21	88	76-120	69-127	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/08/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0357
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Crystal Geyser Roxane / SB0746		Page 19 of 19

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	54.83	110	55.85	112	80-124	73-131	2	0-20	
t-1,3-Dichloropropene	50.00	55.69	111	54.02	108	68-128	58-138	3	0-20	
Ethylbenzene	50.00	53.09	106	50.84	102	80-120	73-127	4	0-20	
2-Hexanone	50.00	61.43	123	61.86	124	57-147	42-162	1	0-20	
Isopropylbenzene	50.00	54.08	108	51.63	103	80-127	72-135	5	0-20	
p-Isopropyltoluene	50.00	56.80	114	52.43	105	80-125	72-132	8	0-20	
Methylene Chloride	50.00	47.68	95	50.30	101	74-122	66-130	5	0-20	
4-Methyl-2-Pentanone	50.00	59.04	118	62.82	126	71-125	62-134	6	0-20	ME
Naphthalene	50.00	56.86	114	56.42	113	54-144	39-159	1	0-20	
n-Propylbenzene	50.00	53.58	107	50.52	101	80-127	72-135	6	0-20	
Styrene	50.00	53.45	107	51.76	104	80-120	73-127	3	0-20	
1,1,1,2-Tetrachloroethane	50.00	51.13	102	50.77	102	80-125	72-132	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	53.97	108	53.67	107	78-126	70-134	1	0-20	
Tetrachloroethene	50.00	52.54	105	49.40	99	57-141	43-155	6	0-20	
Toluene	50.00	49.77	100	50.07	100	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	59.14	118	56.53	113	58-154	42-170	5	0-20	
1,2,4-Trichlorobenzene	50.00	57.98	116	55.35	111	57-153	41-169	5	0-20	
1,1,1-Trichloroethane	50.00	48.68	97	48.39	97	76-124	68-132	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.82	94	48.77	98	58-148	43-163	4	0-20	
1,1,2-Trichloroethane	50.00	52.62	105	55.03	110	80-120	73-127	4	0-20	
Trichloroethene	50.00	52.17	104	50.93	102	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	48.33	97	47.07	94	64-136	52-148	3	0-20	
1,2,3-Trichloropropane	50.00	66.06	132	64.58	129	74-122	66-130	2	0-20	X,ME
1,2,4-Trimethylbenzene	50.00	54.19	108	50.52	101	80-120	73-127	7	0-20	
1,3,5-Trimethylbenzene	50.00	59.50	119	55.59	111	80-126	72-134	7	0-20	
Vinyl Acetate	50.00	73.54	147	73.09	146	34-172	11-195	1	0-20	
Vinyl Chloride	50.00	47.68	95	45.99	92	67-127	57-137	4	0-20	
p/m-Xylene	100.0	105.9	106	102.7	103	80-127	72-135	3	0-20	
o-Xylene	50.00	52.68	105	51.49	103	80-127	72-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	52.20	104	52.37	105	71-120	63-128	0	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 2
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-07-0357 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	834	IC 15	1
EPA 6010B	EPA 3005A Filt.	771	ICP 7300	1
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	771	ICP 7300	1
EPA 7470A	EPA 7470A Filt.	1004	Mercury 04	1
EPA 7470A	EPA 7470A Total	1004	Mercury 04	1
EPA 8260B	EPA 5030C	849	GC/MS WW	2
EPA 8270C	EPA 3510C	923	GC/MS TT	1
SM 2320B	N/A	688	PH1/BUR03	1
SM 2540 C	N/A	1009	SC 2	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	857	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 7	1
SM 5540C	N/A	687	UV 9	1
SM 5540C	N/A	689	UV 9	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

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-07-0357 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

Document Number: 6653

Analysis Request and Chain of Custody Record

15-07-0357

Page 1 of 1

Project Name: Crystal Geyser Roxane	Project Number: SB0746
Samplers Names: Daniel, N. Godinez	Project Contact: Ryan Smith rsmith@geosyntec.com
Laboratory Name: Eurofins / Calscience	Lab Contact: S. Nowak
Lab Address: 7440 Lincoln Way, Garden Grove, CA 92841	Lab Phone: 714 895-5494
	Carrier/Waybill No.: FedEx

White copy: to accompany samples

Yellow copy: field copy

Required Analyses

	VOCs by 8260B	Metals total & Dissolved	SVOCs by 8270	MBAS	Anions	General minerals	TDS	Total Phosphate & Total Phosphorus	Nitrate, Nitrite & TKN		
Bottle Type and Volume/Preservative	3 40mL HCl	2 250mL HDPE Nonpres	1L Amber none	500mL HDPE none	125mL HDPE None	500mL HDPE none	1L HDPE None	2 250mL HDPE H2SO4			
Number of Containers											

	Sample Name	Date	Time	Sample Type											Comments	Lab Use Only: Condition of Bottles
1	MW-07-070615	7/6/15	1315	H_2O	X	X	X	X	X	X	X	X	X			
2	MW-06-070615	7/6/15	1530	H_2O	X	X	X	X	X	X	X	X	X			
3	MW-04-070615	7/6/15	1645	H_2O	X	X	X	X	X	X	X	X	X		3 Coolers shipped via FedEx	
4	MW-04-070615-DUP	7/6/15	1645	H_2O	X	X	X	X	X	X	X	X	X			
-	~~EB-01-070715~~	~~7/7/15~~		~~H_2O~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~			
5	MW-01-070715	7/7/15	0837	H_2O	X	X	X	X	X	X	X	X	X			
6	MW-05-070715	7/7/15	0944	H_2O	X	X	X	X	X	X	X	X	X			
7	MW-03-070715	7/7/15	1111	H_2O	X	X	X	X	X	X	X	X	X			
8	MW-08-070715	7/7/15	1231	H_2O	X	X	X	X	X	X	X	X	X			
	~~TB-01-070715~~															
	7/8/15															

Special Instructions:

Turn-around Time: ☒ Normal ☐ Rush: _____

1. Relinquished by (Signature/Affiliation)	Date 7/7/15 Time 1320	1. Received by (Signature/Affiliation) FedEx	Date 7/7/15 Time 1320
2. Relinquished by (Signature/Affiliation)	Date Time	2. Received by (Signature/Affiliation)	Date Time
3. Relinquished by (Signature/Affiliation)	Date Time	3. Received by (Signature/Affiliation)	Date 7/8/15 Time 1030

Geosyntec consultants 10875 Rancho Bernardo Road, Suite 200, San Diego, CA 92127 (858) 674-6559 Fax: (858) 674-6586

Return to Contents

FedEx® US Airbill
Express

8540 7985 0150

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date

Sender's FedEx Account Number 1359-4617-6

Sender's Name

Phone

Company

Address

Dept./Floor/Suite/Room

City State ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Recipient's Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City State ZIP

8540 7985 0150

4a Express Package Service To add SATURDAY Delivery, see Section 6. *Packages up to 150 lbs.* * To most locations

1 [X] FedEx Priority Overnight* Next business morning.*
5 [ ] FedEx Standard Overnight* Next business afternoon.*
6 [ ] FedEx First Overnight* Earliest next business morning delivery to select locations.*
3 [ ] FedEx 2Day Second business day.*
20 [ ] FedEx Express Saver Third business day.*

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service To add SATURDAY Delivery, see Section 6. *Packages over 150 lbs.* ** To most locations

7 [ ] FedEx 1Day Freight* Next business day.**
8 [ ] FedEx 2Day Freight Second business day.**
83 [ ] FedEx 3Day Freight Third business day.**

* Call for Confirmation:

5 Packaging * Declared value limit $500.

6 [ ] FedEx Envelope*
2 [ ] FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
3 [ ] FedEx Box
4 [ ] FedEx Tube
1 [X] Other*

6 Special Handling Include FedEx address in Section 3.

3 [ ] SATURDAY Delivery Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes.
1 [ ] HOLD Weekday at FedEx Location Not available for FedEx First Overnight.
31 [ ] HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

[X] No
4 [ ] Yes As per attached Shipper's Declaration.
[ ] Yes Shipper's Declaration not required.
6 [ ] Dry Ice Dry ice, 9, UN 1845 x kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

[ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

1 [X] Sender Acct. No. in Section 1 will be billed.
2 [ ] Recipient
3 [ ] Third Party
4 [ ] Credit Card
5 [ ] Cash/Check

FedEx Acct. No. or Credit Card No. 50 Exp. Date

Total Packages 1 **Total Weight** **Total Charges**

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 *NEW* Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

[ ] No Signature Required Package may be left without obtaining a signature for delivery.
10 [ ] Direct Signature Anyone at recipient's address may sign for delivery. *Fee applies.*
34 [ ] Indirect Signature If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. *Fee applies.*

520

Rev. Date 5/05 • Part #158281 • ©1994–2005 FedEx • PRINTED IN U.S.A. SRY

Return to Contents

0357

FedEx® US Airbill Express

8540 7985 0150

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date

Sender's FedEx Account Number 1359-4617-6

Sender's Name

Phone

Company

Address

Dept./Floor/Suite/Room

4a Express Package Service To add SATURDAY Delivery, see Section 6. Packages up to 150 lbs. * To most locations

1 [X] FedEx Priority Overnight Next business morning.*

5 [ ] FedEx Standard Overnight Next business afternoon.*

6 [ ] FedEx First Overnight Earliest next business morning delivery to select locations.*

3 [ ] FedEx 2Day Second business day.*

20 [ ] FedEx Express Saver Third business day.*

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service To add SATURDAY Delivery, see Section 6. Packages over 150 lbs. ** To most locations

7 [ ] FedEx 1Day Freight* Next business day.**

8 [ ] FedEx 2Day Freight Second business day.**

83 [ ] FedEx 3Day Freight Third business day.**

* Call for Confirmation:

5 Packaging * Declared value limit $500.

[ ] FedEx [ ] FedEx [ ] Other

FedEx® US Airbill Express

8540 7985 0160

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date

Sender's FedEx Account Number

Sender's Name

Phone

Company

4a Express Package Service To add SATURDAY Delivery, see Section 6. Packages up to 150 lbs. * To most locations

1 [X] FedEx Priority Overnight Next business morning.*

5 [ ] FedEx Standard Overnight Next business afternoon.*

6 [ ] FedEx First Overnight Earliest next business morning delivery to select locations.*

3 [ ] FedEx 2Day Second business day.*

20 [ ] FedEx Express Saver Third business day.*

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service

FedEx® US Airbill Express

8540 7985 0208

0200 Form ID No.

FedEx Retrieval Copy

1 From

Date

Sender's FedEx Account Number 1359-4617-6

Sender's Name

Phone

Company

Address

Dept./Floor/Suite/Room

City State ZIP

4a Express Package Service To add SATURDAY Delivery, see Section 6. Packages up to 150 lbs. * To most locations

1 [X] FedEx Priority Overnight Next business morning.*

5 [ ] FedEx Standard Overnight Next business afternoon.*

6 [ ] FedEx First Overnight Earliest next business morning delivery to select locations.*

3 [ ] FedEx 2Day Second business day.*

20 [ ] FedEx Express Saver Third business day.*

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service To add SATURDAY Delivery, see Section 6. Packages over 150 lbs. ** To most locations

7 [ ] FedEx 1Day Freight* Next business day.**

8 [X] FedEx 2Day Freight Second business day.**

83 [ ] FedEx 3Day Freight Third business day.**

* Call for Confirmation:

5 Packaging * Declared value limit $500.

6 [ ] FedEx Envelope* 2 [ ] FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak. 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X] Other

6 Special Handling Include FedEx address in Section 3.

3 [ ] SATURDAY Delivery Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes.

1 [ ] HOLD Weekday at FedEx Location Not available for FedEx First Overnight.

31 [ ] HOLD Saturday at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

[X] No 4 [ ] Yes As per attached Shipper's Declaration. [ ] Yes Shipper's Declaration not required. 6 [ ] Dry Ice Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. [ ] Cargo Aircraft Only

7 Payment Bill to: Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]

1 [X] Sender Acct. No. in Section 1 will be billed. 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cash/Check

FedEx Acct. No. Credit Card No. Exp. Date

Total Packages 1 Total Weight 51 Total Charges Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

[ ] No Signature Required Package may be left without obtaining a signature for delivery.

10 [ ] Direct Signature Anyone at recipient's address may sign for delivery. Fee applies.

34 [ ] Indirect Signature If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. Fee applies.

520

Rev. Date 5/05•Part #158281•©1994–2005 FedEx•PRINTED IN U.S.A. SRY

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Recipient's Address 7440 LINCOLN WAY

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City GARDEN GROVE State CA ZIP 92841

8540 7985 0208

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 0357

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 3

CLIENT: Geosyntec

DATE: 07 / 08 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 10.7 °C (w/ CF): 10.5 °C; ☑ Blank ☐ Sample

☑ Sample(s) outside temperature criteria (PM/APM contacted by: IS)

☐ 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: 1020

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: 150603B)

Aqueous: ☒ VOA**n** (07-08-15) ☑ VOA**h** (3) ☐ 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** ☑ 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: 1020

Reviewed by: [illegible]

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 0357

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 3

CLIENT: Geosyntec

DATE: 07 / 08 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 14.8 °C (w/ CF): 14.6 °C; ☐ Blank ☐ Sample

☑ Sample(s) outside temperature criteria (PM/APM contacted by: IS)

☐ 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: 1020

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 ☐ 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: 1020

s = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH Reviewed by: 965

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 0357

SAMPLE RECEIPT CHECKLIST

COOLER 3 OF 3

CLIENT: Geosyntec

DATE: 07 / 08 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 16.3 °C (w/ CF): 16.1 °C; ☒ Blank ☐ Sample

☒ Sample(s) outside temperature criteria (PM/APM contacted by: IS)

☐ 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: 1020

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 ☐ 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: 1020

Reviewed by: 965

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 0357

SAMPLE ANOMALY REPORT

DATE: 07 / 08 / 2015

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

(-9) received two trip blanks not listed on COC. labeled as QCTB-01-070715 7/7/15 preserved with HCl

ECI # 150603B

(-8) and (-4) 1 of 3 250-clear glass bottles preserved with H_2SO_4 received broken

(-6) 1 of 1 1 liter Amber for SVOC by 8270 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: 1020

Reviewed by: 965

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Return to Contents

Stephen Nowak

From: Ryan Smith [rsmith@geosyntec.com]
Sent: Wednesday, July 08, 2015 4:49 PM
To: Stephen Nowak
Subject: RE: CG COC and Sample Receipt form

Steve,

Please proceed with the analysis.

Ryan Smith, P.G., C.Hg
Project Geologist

-----Original Message-----
From: Stephen Nowak [mailto:StephenNowak@eurofinsUS.com]
Sent: Wednesday, July 08, 2015 4:46 PM
To: Ryan Smith
Subject: CG COC and Sample Receipt form

Ryan-

See attached - all of the temps of the coolers were >6deg C.
Should we go ahead with the analysis?

A couple of bottles received broken (but I think we can get by with what we have).

Stephen Nowak
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494
Mobile: +1 714 904 5230

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from any computer. Email transmission cannot be guaranteed to be secure or error free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete. The sender therefore is in no way liable for any errors or omissions in the content of this message which may arise as a result of email transmission. If verification is required, please request a hard copy. We take reasonable precautions to ensure our emails are free from viruses. You need, however, to verify that this email and any attachments are free of viruses, as we can take no responsibility for any computer viruses, which might be transferred by way of this email. We may monitor all email communication through our networks. If you contact us by email, we may store your name and address to facilitate communication.

-----Original Message-----
From: noreply@eurofinsUS.com [mailto:noreply@eurofinsUS.com]
Sent: Wednesday, July 08, 2015 4:44 PM
To: Stephen Nowak; Noel Cruise

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07-0460

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: Crystal Geyser / SB0746

Attention: Ryan Smith
924 Anacapa Street
Suite 4A
Santa Barbara, CA 93101-2177

Approved for release on 07/22/2015 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

eurofins | Calscience

Contents

Client Project Name: Crystal Geyser / SB0746
Work Order Number: 15-07-0460

eurofins | Calscience

Work Order Narrative

Work Order: 15-07-0460 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/09/15. They were assigned to Work Order 15-07-0460.

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:	15-07-0460
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser / SB0746
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	07/09/15 10:00
		Number of Containers:	52
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MW-09-070715	15-07-0460-1	07/07/15 13:45	15	Aqueous
MW-02-070715	15-07-0460-2	07/07/15 15:51	14	Aqueous
IDW-GW-070715	15-07-0460-3	07/07/15 16:40	5	Aqueous
EB-01-070715	15-07-0460-4	07/07/15 16:50	16	Aqueous
QCTB-02-070715	15-07-0460-5	07/07/15 00:00	2	Aqueous

Return to Contents

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-07-0460
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/09/15
Attn:	Ryan Smith		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-09-070715 (15-07-0460-1)						
Calcium	154		0.100	mg/L	EPA 200.7	N/A
Magnesium	7.11		0.100	mg/L	EPA 200.7	N/A
Sodium	75.3		0.500	mg/L	EPA 200.7	N/A
Chloride	6.8		1.0	mg/L	EPA 300.0	N/A
Sulfate	360		5.0	mg/L	EPA 300.0	N/A
Arsenic	0.0472		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0442		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Molybdenum	0.0774		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0506		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0432		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0878		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	174		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	730		1.00	mg/L	SM 2540 C	N/A
pH	7.40	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	0.56		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	0.44		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.28		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	0.79		0.50	mg/L	Total Nitrogen by Calc	N/A
MW-02-070715 (15-07-0460-2)						
Calcium	23.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.54		0.100	mg/L	EPA 200.7	N/A
Sodium	9.42		0.500	mg/L	EPA 200.7	N/A
Chloride	2.0		1.0	mg/L	EPA 300.0	N/A
Sulfate	12		1.0	mg/L	EPA 300.0	N/A
Arsenic	0.0233		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0196		0.0100	mg/L	EPA 6010B	EPA 3005A Filt.
Arsenic	0.0210		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0202		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Alkalinity, Total (as CaCO3)	72.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	160		1.00	mg/L	SM 2540 C	N/A
pH	6.75	BV,BU	0.01	pH units	SM 4500 H+ B	N/A

Return to Contents

* MDL is shown

eurofins | Calscience

Detections Summary

Client:	Geosyntec Consultants	Work Order:	15-07-0460
	924 Anacapa Street, Suite 4A	Project Name:	Crystal Geyser / SB0746
	Santa Barbara, CA 93101-2177	Received:	07/09/15
Attn:	Ryan Smith		

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
IDW-GW-070715 (15-07-0460-3)						
Arsenic	0.234		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Barium	0.0808		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Copper	0.0254		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.118		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.114		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0578		0.0100	mg/L	EPA 6010B	EPA 3010A Total
EB-01-070715 (15-07-0460-4)						
Calcium	0.137		0.100	mg/L	EPA 200.7	N/A
pH	7.45	BV,BU	0.01	pH units	SM 4500 H+ B	N/A

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-09-070715	**15-07-0460-1-E**	**07/07/15 13:45**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 12:30**	**150709L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	6.8	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-070715	**15-07-0460-1-E**	**07/07/15 13:45**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 13:53**	**150709L01**

Parameter	Result	RL	DF	Qualifiers
Sulfate	360	5.0	5.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-070715	**15-07-0460-2-E**	**07/07/15 15:51**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 12:47**	**150709L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	2.0	1.0	1.00	
Sulfate	12	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-01-070715	**15-07-0460-4-E**	**07/07/15 16:50**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 12:13**	**150709L01**

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	**099-12-906-5887**	**N/A**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 11:25**	**150709L01**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-GW-070715	**15-07-0460-3-E**	**07/07/15 16:40**	**Aqueous**	**GC 46**	**07/10/15**	**07/11/15 01:15**	**150710B11**

Parameter	Result	RL	DF	Qualifiers
C6	ND	100	1.00	
C7	ND	100	1.00	
C8	ND	100	1.00	
C9-C10	ND	100	1.00	
C11-C12	ND	100	1.00	
C13-C14	ND	100	1.00	
C15-C16	ND	100	1.00	
C17-C18	ND	100	1.00	
C19-C20	ND	100	1.00	
C21-C22	ND	100	1.00	
C23-C24	ND	100	1.00	
C25-C28	ND	100	1.00	
C29-C32	ND	100	1.00	
C33-C36	ND	100	1.00	
C37-C40	ND	100	1.00	
C41-C44	ND	100	1.00	
C6-C44 Total	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	68	68-140	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-498-268**	**N/A**	**Aqueous**	**GC 46**	**07/10/15**	**07/10/15 22:55**	**150710B11**

Parameter	Result	RL	DF	Qualifiers
C6	ND	100	1.00	
C7	ND	100	1.00	
C8	ND	100	1.00	
C9-C10	ND	100	1.00	
C11-C12	ND	100	1.00	
C13-C14	ND	100	1.00	
C15-C16	ND	100	1.00	
C17-C18	ND	100	1.00	
C19-C20	ND	100	1.00	
C21-C22	ND	100	1.00	
C23-C24	ND	100	1.00	
C25-C28	ND	100	1.00	
C29-C32	ND	100	1.00	
C33-C36	ND	100	1.00	
C37-C40	ND	100	1.00	
C41-C44	ND	100	1.00	
C6-C44 Total	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	68-140	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-09-070715	**15-07-0460-1-J**	**07/07/15 13:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:05**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	154	0.100	1.00	
Magnesium	7.11	0.100	1.00	
Sodium	75.3	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-070715	**15-07-0460-2-J**	**07/07/15 15:51**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:07**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	23.1	0.100	1.00	
Magnesium	2.54	0.100	1.00	
Sodium	9.42	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-01-070715	**15-07-0460-4-J**	**07/07/15 16:50**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:09**	**150710LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	0.137	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	**097-01-012-6255**	**N/A**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:45**	**150710LA3**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
MW-09-070715	**15-07-0460-1-J**	**07/07/15 13:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/21/15 11:04**	**150710LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0506	0.0100	1.00	
Barium	0.0432	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	0.0878	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
MW-02-070715	**15-07-0460-2-L**	**07/07/15 15:51**	**Aqueous**	**ICP 8300**	**07/10/15**	**07/17/15 13:25**	**150710LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0210	0.0100	1.00	
Barium	0.0202	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
IDW-GW-070715	**15-07-0460-3-D**	**07/07/15 16:40**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/21/15 11:06**	**150710LA4**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.234	0.0100	1.00	
Barium	0.0808	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	0.0254	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	0.118	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	0.114	0.0100	1.00	
Zinc	0.0578	0.0100	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
EB-01-070715	**15-07-0460-4-L**	**07/07/15 16:50**	**Aqueous**	**ICP 8300**	**07/10/15**	**07/17/15 13:27**	**150710LA4**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	**097-01-003-15206**	**N/A**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 17:51**	**150710LA4**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
MW-09-070715	**15-07-0460-1-F**	**07/07/15 13:45**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 23:21**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0472	0.0100	1.00	
Barium	0.0442	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	0.0774	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	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-09-070715	**15-07-0460-1-F**	**07/07/15 13:45**	**Aqueous**	**ICP 7300**	**07/15/15**	**07/21/15 14:12**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Zinc	ND	0.0100	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
MW-02-070715	**15-07-0460-2-F**	**07/07/15 15:51**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 23:23**	**150710LA5F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	0.0233	0.0100	1.00	
Barium	0.0196	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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
EB-01-070715	**15-07-0460-4-F**	**07/07/15 16:50**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 23:29**	**150710LA5F**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	**097-01-003-15199**	**N/A**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 17:49**	**150710LA5F**

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.

eurofins | Calscience

Analytical Report

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-09-070715	**15-07-0460-1-F**	**07/07/15 13:45**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:36**	**150710LA2**

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-02-070715	**15-07-0460-2-F**	**07/07/15 15:51**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:42**	**150710LA2**

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
IDW-GW-070715	**15-07-0460-3-D**	**07/07/15 16:40**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:17**	**150710LA2**

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
EB-01-070715	**15-07-0460-4-F**	**07/07/15 16:50**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:44**	**150710LA2**

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	**099-04-008-7494**	**N/A**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:26**	**150710LA2**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-09-070715	**15-07-0460-1-F**	**07/07/15 13:45**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:13**	**150710LA1F**

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-02-070715	**15-07-0460-2-F**	**07/07/15 15:51**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:15**	**150710LA1F**

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
EB-01-070715	**15-07-0460-4-F**	**07/07/15 16:50**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:20**	**150710LA1F**

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	**099-15-763-581**	**N/A**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:42**	**150710LA1F**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-09-070715	**15-07-0460-1-O**	**07/07/15 13:45**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 15:08**	**150709L02**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser / SB0746		Page 3 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	82	50-110	
2-Fluorophenol	56	20-110	
Nitrobenzene-d5	82	40-110	
p-Terphenyl-d14	81	50-135	
Phenol-d6	34	10-115	
2,4,6-Tribromophenol	86	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-02-070715	**15-07-0460-2-O**	**07/07/15 15:51**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 15:26**	**150709L02**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Analytical Report

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser / SB0746		Page 6 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	84	40-110	
p-Terphenyl-d14	83	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	86	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
EB-01-070715	**15-07-0460-4-O**	**07/07/15 16:50**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 15:45**	**150709L02**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser / SB0746		Page 9 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	50-110	
2-Fluorophenol	58	20-110	
Nitrobenzene-d5	84	40-110	
p-Terphenyl-d14	83	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	87	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	**099-02-008-45**	**N/A**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 12:37**	**150709L02**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: Crystal Geyser / SB0746		Page 12 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	50-110	
2-Fluorophenol	61	20-110	
Nitrobenzene-d5	83	40-110	
p-Terphenyl-d14	81	50-135	
Phenol-d6	36	10-115	
2,4,6-Tribromophenol	87	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-09-070715	**15-07-0460-1-A**	**07/07/15 13:45**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 17:30**	**150710L011**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	93	79-120	
Dibromofluoromethane	90	80-126	
1,2-Dichloroethane-d4	88	80-124	
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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-02-070715	**15-07-0460-2-A**	**07/07/15 15:51**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 18:00**	**150710L011**

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:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Crystal Geyser / SB0746		Page 4 of 12

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	79-120	
Dibromofluoromethane	96	80-126	
1,2-Dichloroethane-d4	91	80-124	
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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
IDW-GW-070715	**15-07-0460-3-A**	**07/07/15 16:40**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 18:29**	**150710L011**

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:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: Crystal Geyser / SB0746		Page 6 of 12

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	79-120	
Dibromofluoromethane	96	80-126	
1,2-Dichloroethane-d4	91	80-124	
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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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
EB-01-070715	**15-07-0460-4-A**	**07/07/15 16:50**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 14:05**	**150710L011**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	79-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	98	80-124	
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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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-02-070715	**15-07-0460-5-A**	**07/07/15 00:00**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 14:35**	**150710L011**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	79-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	98	80-124	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents

eurofins | Calscience

Analytical Report

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: Crystal Geyser / SB0746			Page 11 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2194**	**N/A**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 13:07**	**150710L011**

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
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	79-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	97	80-124	
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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
MW-09-070715	**15-07-0460-1**	**07/07/15 13:45**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	174	5.00	1.00		mg/L	N/A	07/13/15	SM 2320B
Solids, Total Dissolved	730	1.00	1.00		mg/L	07/09/15	07/09/15	SM 2540 C
pH	7.40	0.01	1.00	BV,BU	pH units	N/A	07/09/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.56	0.50	1.00		mg/L	07/16/15	07/16/15	SM 4500 N Org B
Phosphorus, Total	0.14	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	0.44	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/16/15	07/16/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.28	0.10	1.00		mg/L	07/09/15	07/09/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 5540C
Total Nitrogen	0.79	0.50	1.00		mg/L	N/A	07/20/15	Total Nitrogen by Calc

MW-02-070715	**15-07-0460-2**	**07/07/15 15:51**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	72.0	1.00	1.00		mg/L	N/A	07/13/15	SM 2320B
Solids, Total Dissolved	160	1.00	1.00		mg/L	07/09/15	07/09/15	SM 2540 C
pH	6.75	0.01	1.00	BV,BU	pH units	N/A	07/09/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	07/16/15	07/16/15	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/16/15	07/16/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	07/20/15	Total Nitrogen by Calc

EB-01-070715	**15-07-0460-4**	**07/07/15 16:50**	**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	07/14/15	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	07/09/15	07/09/15	SM 2540 C
pH	7.45	0.01	1.00	BV,BU	pH units	N/A	07/09/15	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	07/16/15	07/16/15	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/16/15	07/16/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	07/20/15	Total Nitrogen by Calc

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460

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	07/13/15	SM 2320B
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	07/14/15	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	07/09/15	07/09/15	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	07/16/15	07/16/15	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	07/10/15	07/10/15	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	07/16/15	07/16/15	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	07/09/15	07/09/15	SM 5540C

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 300.0
Project: Crystal Geyser / SB0746		Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0382-1	**Sample**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 13:03**	**150709S01**
15-07-0382-1	**Matrix Spike**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 13:20**	**150709S01**
15-07-0382-1	**Matrix Spike Duplicate**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 13:37**	**150709S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	50.29	50.00	106.0	111	106.1	112	80-120	0	0-20	
Sulfate	81.74	50.00	142.1	121	141.9	120	80-120	0	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: Crystal Geyser / SB0746			Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-02-070715	**Sample**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPS1**
MW-02-070715	**Matrix Spike**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPS1**
MW-02-070715	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	ND	0.4000	0.4590	115	0.4530	113	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:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: Crystal Geyser / SB0746			Page 3 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-02-070715	**Sample**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4S1**
MW-02-070715	**Matrix Spike**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4S1**
MW-02-070715	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	ND	1.220	1.400	115	1.390	114	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:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 4500-NO3 E
Project: Crystal Geyser / SB0746		Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-09-070715	**Sample**	**Aqueous**	**UV 7**	**07/09/15**	**07/09/15 13:08**	**F0709NO3S1**
MW-09-070715	**Matrix Spike**	**Aqueous**	**UV 7**	**07/09/15**	**07/09/15 13:08**	**F0709NO3S1**
MW-09-070715	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**07/09/15**	**07/09/15 13:08**	**F0709NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.2753	0.5000	0.8360	112	0.8380	113	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	SM 5540C
Project: Crystal Geyser / SB0746		Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-09-070715	**Sample**	**Aqueous**	**UV 9**	**07/09/15**	**07/09/15 12:41**	**F0709SURS1**
MW-09-070715	**Matrix Spike**	**Aqueous**	**UV 9**	**07/09/15**	**07/09/15 12:41**	**F0709SURS1**
MW-09-070715	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**07/09/15**	**07/09/15 12:41**	**F0709SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.8700	87	0.9300	93	70-130	7	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	N/A
	Method:	EPA 200.7
Project: Crystal Geyser / SB0746		Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-02-070715	**Sample**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:07**	**150710SA3A**
MW-02-070715	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:01**	**150710SA3A**
MW-02-070715	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/11/15 02:03**	**150710SA3A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	23.11	0.5000	23.87	4X	23.80	4X	80-120	4X	0-20	Q
Magnesium	2.541	0.5000	3.119	4X	3.193	4X	80-120	4X	0-20	Q
Sodium	9.416	5.000	14.89	109	14.84	108	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: Crystal Geyser / SB0746			Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0562-2	**Sample**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:59**	**150710SA4**
15-07-0562-2	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:54**	**150710SA4**
15-07-0562-2	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:57**	**150710SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.4926	99	0.5008	100	72-132	2	0-10	
Arsenic	ND	0.5000	0.4961	99	0.5155	103	80-140	4	0-11	
Barium	0.1190	0.5000	0.6228	101	0.6327	103	87-123	2	0-6	
Beryllium	ND	0.5000	0.5054	101	0.5060	101	89-119	0	0-8	
Cadmium	ND	0.5000	0.4873	97	0.4904	98	82-124	1	0-7	
Chromium	0.01950	0.5000	0.5299	102	0.5384	104	86-122	2	0-8	
Cobalt	ND	0.5000	0.4756	95	0.4902	98	83-125	3	0-7	
Copper	ND	0.5000	0.4920	98	0.4979	100	78-126	1	0-7	
Lead	ND	0.5000	0.4729	95	0.4853	97	84-120	3	0-7	
Molybdenum	ND	0.5000	0.4981	100	0.5112	102	78-126	3	0-7	
Nickel	ND	0.5000	0.4687	94	0.4746	95	84-120	1	0-7	
Selenium	ND	0.5000	0.5101	102	0.5256	105	79-127	3	0-9	
Silver	ND	0.2500	0.2613	105	0.2668	107	86-128	2	0-7	
Thallium	ND	0.5000	0.4330	87	0.4542	91	79-121	5	0-8	
Vanadium	ND	0.5000	0.5103	102	0.5203	104	88-118	2	0-7	
Zinc	0.04324	0.5000	0.5313	98	0.5526	102	89-131	4	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: Crystal Geyser / SB0746			Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0357-5	**Sample**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 20:04**	**150710SA5**
15-07-0357-5	**Matrix Spike**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 18:11**	**150710SA5**
15-07-0357-5	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 18:13**	**150710SA5**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.5337	107	0.5067	101	72-132	5	0-10	
Arsenic	0.01365	0.5000	0.5662	111	0.5398	105	80-140	5	0-11	
Barium	0.02283	0.5000	0.5817	112	0.5701	109	87-123	2	0-6	
Beryllium	ND	0.5000	0.5375	108	0.5277	106	89-119	2	0-8	
Cadmium	ND	0.5000	0.5367	107	0.5277	106	82-124	2	0-7	
Chromium	ND	0.5000	0.5576	112	0.5469	109	86-122	2	0-8	
Cobalt	ND	0.5000	0.5549	111	0.5455	109	83-125	2	0-7	
Copper	ND	0.5000	0.5406	108	0.5305	106	78-126	2	0-7	
Lead	ND	0.5000	0.5423	108	0.5196	104	84-120	4	0-7	
Molybdenum	0.01096	0.5000	0.5483	107	0.5275	103	78-126	4	0-7	
Nickel	ND	0.5000	0.5418	108	0.5167	103	84-120	5	0-7	
Selenium	ND	0.5000	0.5360	107	0.5184	104	79-127	3	0-9	
Silver	ND	0.2500	0.2759	110	0.2711	108	86-128	2	0-7	
Thallium	ND	0.5000	0.5021	100	0.4920	98	79-121	2	0-8	
Vanadium	ND	0.5000	0.5576	112	0.5479	110	88-118	2	0-7	
Zinc	ND	0.5000	0.5619	112	0.5540	111	89-131	1	0-8	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: Crystal Geyser / SB0746			Page 9 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-09-070715	**Sample**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:36**	**150710SA2**
MW-09-070715	**Matrix Spike**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:38**	**150710SA2**
MW-09-070715	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:40**	**150710SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009613	96	0.009725	97	57-141	1	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: Crystal Geyser / SB0746			Page 10 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0357-7	**Sample**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:46**	**150710SA1**
15-07-0357-7	**Matrix Spike**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:48**	**150710SA1**
15-07-0357-7	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:51**	**150710SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009842	98	0.009634	96	57-141	2	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: Crystal Geyser / SB0746			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-07-0433-7	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/13/15 14:26**	**F0713ALKD1**
15-07-0433-7	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/13/15 14:26**	**F0713ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	368.0	368.0	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: Crystal Geyser / SB0746			Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
EB-01-070715	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/14/15 16:45**	**F0714ALKD1**
EB-01-070715	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/14/15 16:45**	**F0714ALKD1**

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:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: Crystal Geyser / SB0746			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-07-0382-1	**Sample**	**Aqueous**	**SC 2**	**07/09/15 00:00**	**07/09/15 19:00**	**F0709TDSD2**
15-07-0382-1	**Sample Duplicate**	**Aqueous**	**SC 2**	**07/09/15 00:00**	**07/09/15 19:00**	**F0709TDSD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	465.0	495.0	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 H+ B
Project: Crystal Geyser / SB0746			Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
EB-01-070715	**Sample**	**Aqueous**	**PH 1**	**N/A**	**07/09/15 19:41**	**F0709PHD1**
EB-01-070715	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**07/09/15 19:41**	**F0709PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	7.450	7.440	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 N Org B
Project: Crystal Geyser / SB0746			Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-07-0601-5	**Sample**	**Aqueous**	**BUR05**	**07/16/15 00:00**	**07/16/15 17:00**	**F0716TKND1**
15-07-0601-5	**Sample Duplicate**	**Aqueous**	**BUR05**	**07/16/15 00:00**	**07/16/15 17:00**	**F0716TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	26.32	26.46	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: Crystal Geyser / SB0746			Page 1 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-5887	**LCS**	**Aqueous**	**IC 9**	**N/A**	**07/09/15 11:42**	**150709L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.06	98	90-110	
Sulfate	50.00	48.96	98	90-110	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-748	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/13/15 14:26**	**F0713ALKB1**
099-15-859-748	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/13/15 14:26**	**F0713ALKB1**

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	100.0	100	80-120	0	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: N/A
Method: SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-981-109	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/14/15 16:45**	**F0714ALKB1**
099-15-981-109	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**07/14/15 16:45**	**F0714ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	10.00	10.00	100	10.00	100	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: N/A
Method: SM 2540 C
Page 4 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4658	**LCS**	**Aqueous**	**SC 2**	**07/09/15**	**07/09/15 19:00**	**F0709TDSL2**
099-12-180-4658	**LCSD**	**Aqueous**	**SC 2**	**07/09/15**	**07/09/15 19:00**	**F0709TDSL2**

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: 07/09/15
924 Anacapa Street, Suite 4A	Work Order: 15-07-0460
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: Crystal Geyser / SB0746	Page 5 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2674	**LCS**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPL1**
099-05-098-2674	**LCSD**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.3940	98	0.3910	98	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: N/A
Method: SM 4500 P B/E
Page 6 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-163	**LCS**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4L1**
099-14-276-163	**LCSD**	**Aqueous**	**UV 7**	**07/10/15**	**07/10/15 15:30**	**F0710PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.210	99	1.200	98	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: N/A
Method: SM 4500-NH3 B/C
Page 7 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2155	**LCS**	**Aqueous**	**BUR05**	**07/16/15**	**07/16/15 17:40**	**F0716NH3L2**
099-12-814-2155	**LCSD**	**Aqueous**	**BUR05**	**07/16/15**	**07/16/15 17:40**	**F0716NH3L2**

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	4.368	87	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: N/A
Method: SM 4500-NO3 E
Page 8 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-120-1829	**LCS**	**Aqueous**	**UV 7**	**07/09/15**	**07/09/15 13:08**	**F0709NO3L1**
099-05-120-1829	**LCSD**	**Aqueous**	**UV 7**	**07/09/15**	**07/09/15 13:08**	**F0709NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.4890	98	0.4910	98	80-120	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: Crystal Geyser / SB0746			Page 9 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-093-2897	**LCS**	**Aqueous**	**UV 9**	**07/09/15**	**07/09/15 12:41**	**F0709SURL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	1.000	0.9500	95	80-120	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: EPA 3510C
Method: EPA 8015B (M)
Page 10 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-498-268	**LCS**	**Aqueous**	**GC 46**	**07/10/15**	**07/10/15 23:12**	**150710B11**
099-15-498-268	**LCSD**	**Aqueous**	**GC 46**	**07/10/15**	**07/10/15 23:30**	**150710B11**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	4000	3881	97	3857	96	75-117	1	0-13	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: Crystal Geyser / SB0746			Page 11 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6255	**LCS**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/10/15 21:47**	**150710LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5013	100	85-115	
Magnesium	0.5000	0.5340	107	85-115	
Sodium	5.000	4.936	99	85-115	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 3010A Total
		Method:	EPA 6010B
Project: Crystal Geyser / SB0746			Page 12 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15206	**LCS**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/15/15 17:54**	**150710LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4022	80	80-120	73-127	
Arsenic	0.5000	0.4141	83	80-120	73-127	
Barium	0.5000	0.4843	97	80-120	73-127	
Beryllium	0.5000	0.4151	83	80-120	73-127	
Cadmium	0.5000	0.4441	89	80-120	73-127	
Chromium	0.5000	0.4540	91	80-120	73-127	
Cobalt	0.5000	0.4495	90	80-120	73-127	
Copper	0.5000	0.4528	91	80-120	73-127	
Lead	0.5000	0.4413	88	80-120	73-127	
Molybdenum	0.5000	0.4235	85	80-120	73-127	
Nickel	0.5000	0.4426	89	80-120	73-127	
Selenium	0.5000	0.4126	83	80-120	73-127	
Silver	0.2500	0.2371	95	80-120	73-127	
Thallium	0.5000	0.4421	88	80-120	73-127	
Vanadium	0.5000	0.4383	88	80-120	73-127	
Zinc	0.5000	0.4262	85	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:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6010B
Project: Crystal Geyser / SB0746			Page 13 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15199	**LCS**	**Aqueous**	**ICP 7300**	**07/10/15**	**07/13/15 17:52**	**150710LA5F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.5000	0.4658	93	80-120	73-127	
Arsenic	0.5000	0.4795	96	80-120	73-127	
Barium	0.5000	0.5330	107	80-120	73-127	
Beryllium	0.5000	0.4905	98	80-120	73-127	
Cadmium	0.5000	0.5130	103	80-120	73-127	
Chromium	0.5000	0.5360	107	80-120	73-127	
Cobalt	0.5000	0.5433	109	80-120	73-127	
Copper	0.5000	0.5157	103	80-120	73-127	
Lead	0.5000	0.5107	102	80-120	73-127	
Molybdenum	0.5000	0.4951	99	80-120	73-127	
Nickel	0.5000	0.5192	104	80-120	73-127	
Selenium	0.5000	0.4758	95	80-120	73-127	
Silver	0.2500	0.2613	105	80-120	73-127	
Thallium	0.5000	0.5199	104	80-120	73-127	
Vanadium	0.5000	0.5197	104	80-120	73-127	
Zinc	0.5000	0.4988	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

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: Crystal Geyser / SB0746			Page 14 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7494	**LCS**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 21:33**	**150710LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009401	94	85-121	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

eurofins | Calscience

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/09/15
924 Anacapa Street, Suite 4A		Work Order:	15-07-0460
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: Crystal Geyser / SB0746			Page 15 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-581	**LCS**	**Aqueous**	**Mercury 04**	**07/10/15**	**07/10/15 20:44**	**150710LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009901	99	85-121	

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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: EPA 3510C
Method: EPA 8270C

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-45	**LCS**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 11:59**	**150709L02**
099-02-008-45	**LCSD**	**Aqueous**	**GC/MS TT**	**07/09/15**	**07/10/15 12:18**	**150709L02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	92.14	92	92.40	92	45-110	34-121	0	0-11	
Acenaphthylene	100.0	90.25	90	90.24	90	50-105	41-114	0	0-20	
Aniline	100.0	94.18	94	94.22	94	50-130	37-143	0	0-20	
Anthracene	100.0	95.22	95	95.54	96	55-110	46-119	0	0-20	
Azobenzene	100.0	88.82	89	89.27	89	50-130	37-143	1	0-20	
Benzidine	100.0	104.7	105	109.8	110	50-130	37-143	5	0-20	
Benzo (a) Anthracene	100.0	91.86	92	91.31	91	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	85.69	86	87.05	87	55-110	46-119	2	0-20	
Benzo (b) Fluoranthene	100.0	85.17	85	89.13	89	45-120	32-132	5	0-20	
Benzo (g,h,i) Perylene	100.0	95.15	95	96.23	96	40-125	26-139	1	0-20	
Benzo (k) Fluoranthene	100.0	86.57	87	83.79	84	45-125	32-138	3	0-20	
Benzoic Acid	100.0	63.14	63	62.79	63	50-130	37-143	1	0-20	
Benzyl Alcohol	100.0	96.52	97	94.56	95	30-110	17-123	2	0-20	
Bis(2-Chloroethoxy) Methane	100.0	92.11	92	89.28	89	45-105	35-115	3	0-20	
Bis(2-Chloroethyl) Ether	100.0	89.70	90	88.67	89	35-110	22-122	1	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	93.21	93	90.38	90	25-130	8-148	3	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	98.23	98	99.23	99	40-125	26-139	1	0-20	
4-Bromophenyl-Phenyl Ether	100.0	87.94	88	88.30	88	50-115	39-126	0	0-20	
Butyl Benzyl Phthalate	100.0	98.02	98	98.50	99	45-115	33-127	0	0-20	
4-Chloro-3-Methylphenol	100.0	92.15	92	92.35	92	45-110	34-121	0	0-40	
4-Chloroaniline	100.0	98.69	99	97.17	97	15-110	0-126	2	0-20	
2-Chloronaphthalene	100.0	85.85	86	84.42	84	50-105	41-114	2	0-20	
2-Chlorophenol	100.0	91.24	91	90.76	91	35-105	23-117	1	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	88.64	89	88.62	89	50-110	40-120	0	0-20	
Chrysene	100.0	90.65	91	92.38	92	55-110	46-119	2	0-20	
2,6-Dichlorophenol	100.0	90.72	91	91.43	91	42-120	29-133	1	0-21	
Di-n-Butyl Phthalate	100.0	92.14	92	92.08	92	55-115	45-125	0	0-20	
Di-n-Octyl Phthalate	100.0	92.11	92	93.17	93	35-135	18-152	1	0-20	
Dibenz (a,h) Anthracene	100.0	92.71	93	92.41	92	40-125	26-139	0	0-20	
Dibenzofuran	100.0	89.89	90	91.17	91	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	74.56	75	74.21	74	35-100	24-111	0	0-20	
1,3-Dichlorobenzene	100.0	69.52	70	69.74	70	30-100	18-112	0	0-20	
1,4-Dichlorobenzene	100.0	71.08	71	71.09	71	30-100	18-112	0	0-26	
3,3'-Dichlorobenzidine	100.0	101.0	101	102.0	102	20-110	5-125	1	0-20	
2,4-Dichlorophenol	100.0	92.87	93	93.99	94	50-105	41-114	1	0-20	
Diethyl Phthalate	100.0	93.19	93	93.04	93	40-120	27-133	0	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: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: EPA 3510C
Method: EPA 8270C

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	90.81	91	90.71	91	25-125	8-142	0	0-20	
2,4-Dimethylphenol	100.0	91.37	91	90.96	91	30-110	17-123	0	0-20	
4,6-Dinitro-2-Methylphenol	100.0	99.77	100	100.4	100	40-130	25-145	1	0-20	
2,4-Dinitrophenol	100.0	100.4	100	99.36	99	15-140	0-161	1	0-20	
2,4-Dinitrotoluene	100.0	95.11	95	93.83	94	50-120	38-132	1	0-36	
2,6-Dinitrotoluene	100.0	93.95	94	93.14	93	50-115	39-126	1	0-20	
Fluoranthene	100.0	91.98	92	91.63	92	55-115	45-125	0	0-20	
Fluorene	100.0	92.96	93	93.64	94	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	77.20	77	75.42	75	25-105	12-118	2	0-20	
Hexachlorobenzene	100.0	93.69	94	92.68	93	50-110	40-120	1	0-20	
Hexachlorocyclopentadiene	100.0	81.77	82	80.17	80	50-130	37-143	2	0-20	
Hexachloroethane	100.0	71.56	72	70.15	70	30-95	19-106	2	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	92.55	93	92.75	93	45-125	32-138	0	0-20	
Isophorone	100.0	90.35	90	90.14	90	50-110	40-120	0	0-20	
2-Methylnaphthalene	100.0	92.50	93	92.62	93	45-105	35-115	0	0-20	
1-Methylnaphthalene	100.0	87.12	87	86.79	87	80-120	73-127	0	0-20	
2-Methylphenol	100.0	91.03	91	90.76	91	40-110	28-122	0	0-20	
3/4-Methylphenol	200.0	167.4	84	168.1	84	30-110	17-123	0	0-20	
N-Nitroso-di-n-propylamine	100.0	113.6	114	114.0	114	35-130	19-146	0	0-13	
N-Nitrosodimethylamine	100.0	78.34	78	76.89	77	25-110	11-124	2	0-20	
N-Nitrosodiphenylamine	100.0	125.0	125	124.8	125	50-110	40-120	0	0-20	X
Naphthalene	100.0	84.41	84	84.05	84	40-100	30-110	0	0-20	
4-Nitroaniline	100.0	108.5	109	108.8	109	35-120	21-134	0	0-20	
3-Nitroaniline	100.0	107.8	108	110.5	111	20-125	2-142	3	0-20	
2-Nitroaniline	100.0	112.4	112	112.0	112	50-115	39-126	0	0-20	
Nitrobenzene	100.0	83.47	83	82.04	82	45-110	34-121	2	0-20	
4-Nitrophenol	100.0	45.56	46	45.70	46	20-150	0-172	0	0-40	
2-Nitrophenol	100.0	89.28	89	90.35	90	40-115	28-128	1	0-20	
Pentachlorophenol	100.0	89.19	89	88.95	89	40-115	28-128	0	0-40	
Phenanthrene	100.0	98.09	98	97.38	97	50-115	39-126	1	0-20	
Phenol	100.0	44.34	44	43.81	44	10-115	0-132	1	0-23	
Pyrene	100.0	98.98	99	99.66	100	50-130	37-143	1	0-20	
Pyridine	100.0	82.30	82	81.81	82	52-115	42-126	1	0-20	
1,2,4-Trichlorobenzene	100.0	78.92	79	79.98	80	35-105	23-117	1	0-21	
2,4,6-Trichlorophenol	100.0	88.28	88	88.81	89	50-115	39-126	1	0-20	
2,4,5-Trichlorophenol	100.0	87.10	87	85.60	86	50-110	40-120	2	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
Project: Crystal Geyser / SB0746		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

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
924 Anacapa Street, Suite 4A
Santa Barbara, CA 93101-2177

Project: Crystal Geyser / SB0746

Date Received: 07/09/15
Work Order: 15-07-0460
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-316-2194	**LCS**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 11:13**	**150710L011**
099-14-316-2194	**LCSD**	**Aqueous**	**GC/MS RR**	**07/10/15**	**07/10/15 11:43**	**150710L011**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	48.68	97	56.44	113	12-150	0-173	15	0-20	
Benzene	50.00	44.10	88	48.98	98	80-120	73-127	10	0-20	
Bromobenzene	50.00	48.86	98	54.43	109	80-120	73-127	11	0-20	
Bromochloromethane	50.00	47.67	95	52.19	104	80-122	73-129	9	0-20	
Bromodichloromethane	50.00	46.66	93	51.93	104	80-123	73-130	11	0-20	
Bromoform	50.00	49.38	99	55.12	110	74-134	64-144	11	0-20	
Bromomethane	50.00	28.20	56	30.65	61	22-160	0-183	8	0-20	
2-Butanone	50.00	47.29	95	56.17	112	44-164	24-184	17	0-20	
n-Butylbenzene	50.00	50.34	101	54.63	109	80-132	71-141	8	0-20	
sec-Butylbenzene	50.00	47.44	95	50.92	102	80-129	72-137	7	0-20	
tert-Butylbenzene	50.00	47.82	96	51.32	103	80-130	72-138	7	0-20	
Carbon Disulfide	50.00	44.32	89	44.68	89	60-126	49-137	1	0-20	
Carbon Tetrachloride	50.00	41.17	82	45.02	90	64-148	50-162	9	0-20	
Chlorobenzene	50.00	44.86	90	49.11	98	80-120	73-127	9	0-20	
Chloroethane	50.00	38.16	76	40.89	82	63-123	53-133	7	0-20	
Chloroform	50.00	43.77	88	48.99	98	79-121	72-128	11	0-20	
Chloromethane	50.00	38.75	77	33.31	67	43-133	28-148	15	0-20	
2-Chlorotoluene	50.00	45.33	91	49.48	99	80-130	72-138	9	0-20	
4-Chlorotoluene	50.00	45.72	91	49.77	100	80-121	73-128	8	0-20	
Dibromochloromethane	50.00	49.49	99	54.57	109	80-125	72-132	10	0-20	
1,2-Dibromo-3-Chloropropane	50.00	47.57	95	54.76	110	68-128	58-138	14	0-20	
1,2-Dibromoethane	50.00	48.40	97	53.33	107	80-120	73-127	10	0-20	
Dibromomethane	50.00	45.38	91	51.15	102	80-121	73-128	12	0-20	
1,2-Dichlorobenzene	50.00	46.37	93	50.76	102	80-120	73-127	9	0-20	
1,3-Dichlorobenzene	50.00	47.28	95	51.98	104	80-121	73-128	9	0-20	
1,4-Dichlorobenzene	50.00	45.78	92	50.05	100	80-120	73-127	9	0-20	
Dichlorodifluoromethane	50.00	47.78	96	49.63	99	25-187	0-214	4	0-20	
1,1-Dichloroethane	50.00	42.68	85	47.69	95	75-120	68-128	11	0-20	
1,2-Dichloroethane	50.00	44.93	90	50.23	100	80-123	73-130	11	0-20	
1,1-Dichloroethene	50.00	43.90	88	47.69	95	74-122	66-130	8	0-20	
c-1,2-Dichloroethene	50.00	47.75	95	53.25	106	75-123	67-131	11	0-20	
t-1,2-Dichloroethene	50.00	47.39	95	51.11	102	70-124	61-133	8	0-20	
1,2-Dichloropropane	50.00	46.63	93	52.48	105	80-120	73-127	12	0-20	
1,3-Dichloropropane	50.00	48.23	96	54.13	108	80-120	73-127	12	0-20	
2,2-Dichloropropane	50.00	46.80	94	50.49	101	49-151	32-168	8	0-20	
1,1-Dichloropropene	50.00	41.44	83	44.51	89	76-120	69-127	7	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

eurofins | Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/09/15
924 Anacapa Street, Suite 4A	Work Order:	15-07-0460
Santa Barbara, CA 93101-2177	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: Crystal Geyser / SB0746		Page 20 of 20

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	50.21	100	55.82	112	80-124	73-131	11	0-20	
t-1,3-Dichloropropene	50.00	47.49	95	52.01	104	68-128	58-138	9	0-20	
Ethylbenzene	50.00	46.81	94	51.80	104	80-120	73-127	10	0-20	
2-Hexanone	50.00	46.25	92	53.93	108	57-147	42-162	15	0-20	
Isopropylbenzene	50.00	46.62	93	51.12	102	80-127	72-135	9	0-20	
p-Isopropyltoluene	50.00	50.30	101	55.36	111	80-125	72-132	10	0-20	
Methylene Chloride	50.00	46.95	94	51.93	104	74-122	66-130	10	0-20	
4-Methyl-2-Pentanone	50.00	45.68	91	53.76	108	71-125	62-134	16	0-20	
Naphthalene	50.00	45.68	91	51.22	102	54-144	39-159	11	0-20	
n-Propylbenzene	50.00	45.38	91	49.50	99	80-127	72-135	9	0-20	
Styrene	50.00	48.49	97	53.36	107	80-120	73-127	10	0-20	
1,1,1,2-Tetrachloroethane	50.00	49.01	98	54.28	109	80-125	72-132	10	0-20	
1,1,2,2-Tetrachloroethane	50.00	47.90	96	53.50	107	78-126	70-134	11	0-20	
Tetrachloroethene	50.00	53.08	106	58.38	117	57-141	43-155	10	0-20	
Toluene	50.00	45.51	91	50.87	102	80-120	73-127	11	0-20	
1,2,3-Trichlorobenzene	50.00	49.96	100	55.02	110	58-154	42-170	10	0-20	
1,2,4-Trichlorobenzene	50.00	52.21	104	55.41	111	57-153	41-169	6	0-20	
1,1,1-Trichloroethane	50.00	45.73	91	50.01	100	76-124	68-132	9	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	50.43	101	52.79	106	58-148	43-163	5	0-20	
1,1,2-Trichloroethane	50.00	48.35	97	53.52	107	80-120	73-127	10	0-20	
Trichloroethene	50.00	46.43	93	51.43	103	80-120	73-127	10	0-20	
Trichlorofluoromethane	50.00	47.16	94	49.81	100	64-136	52-148	5	0-20	
1,2,3-Trichloropropane	50.00	45.96	92	51.93	104	74-122	66-130	12	0-20	
1,2,4-Trimethylbenzene	50.00	48.25	97	53.17	106	80-120	73-127	10	0-20	
1,3,5-Trimethylbenzene	50.00	50.12	100	54.90	110	80-126	72-134	9	0-20	
Vinyl Acetate	50.00	65.47	131	73.21	146	34-172	11-195	11	0-20	
Vinyl Chloride	50.00	39.10	78	40.24	80	67-127	57-137	3	0-20	
p/m-Xylene	100.0	88.67	89	97.07	97	80-127	72-135	9	0-20	
o-Xylene	50.00	44.32	89	49.32	99	80-127	72-135	11	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	46.17	92	51.04	102	71-120	63-128	10	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

eurofins | Calscience

Sample Analysis Summary Report

Work Order: 15-07-0460 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	834	IC 9	1
EPA 6010B	EPA 3005A Filt.	771	ICP 7300	1
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 8300	1
EPA 7470A	EPA 7470A Filt.	1004	Mercury 04	1
EPA 7470A	EPA 7470A Total	1004	Mercury 04	1
EPA 8015B (M)	EPA 3510C	972	GC 46	1
EPA 8260B	EPA 5030C	1005	GC/MS RR	2
EPA 8270C	EPA 3510C	923	GC/MS TT	1
SM 2320B	N/A	857	PH1/BUR03	1
SM 2540 C	N/A	1009	SC 2	1
SM 4500 H+ B	N/A	688	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	857	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 7	1
SM 5540C	N/A	990	UV 9	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

eurofins | Calscience

Glossary of Terms and Qualifiers

Work Order: 15-07-0460 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

Document Number: 6655

Analysis Request and Chain of Custody Record

15-07-0460

Page 1 of 1

Project Name: Crystal Geyser	Project Number: 530746
Samplers Names: Daniel, N. Godinez	Project Contact: Ryan Smith rsmith@geosyntec.com
Laboratory Name: Eurofins/Calscience	Lab Contact: S. Nowak
Lab Address: 7440 Lincoln Way, Garden Grove, CA 92841	Lab Phone: 714 895 5494
	Carrier/Waybill No.: Fed Ex

White copy: to accompany samples

Yellow copy: field copy

	Sample Name	Date	Time	Sample Type	Required Analyses: VOCs by 8260B	Metals Total & Dissolved	SVOCs by 8270	MIBAS	Anions	General Minerals	TDS	Total Phosphate & Total Phosphorus	Nitrate, Nitrite & TKN	TPH-CC	Metals	Comments	Lab Use Only: Condition of Bottles
					Bottle Type and Volume/Preservative												
					Number of Containers												
1	MW-09-070715	7/7/15	~~1230~~ 1545	H_2O	X	X	X	X	X	X	X	X	X				
2	MW-02-070715	7/7/15	1551	H_2O	X	X	X	X	X	X	X	X	X				
3	IDW-GW-070715	7/7/15	1640	H_2O	X									X	X	(VOCs, TPH-CC, & metals)	
4	EB-01-070715	7/7/15	1650	H_2O	X	X	X	X	X	X	X	X	X				
5	QCTB-02-070715	7/7/15		H_2O	X												

Special Instructions:

Turn-around Time:

☑ Normal ☐ Rush: _____

1. Relinquished by (Signature/Affiliation)	Date 7/8/15 Time 0945	1. Received by (Signature/Affiliation) Fed Ex tracking 8540 7985 0171	Date 7/8/15 Time 0945
2. Relinquished by (Signature/Affiliation)	Date Time	2. Received by (Signature/Affiliation) EM	Date 7/9/15 Time 1000
3. Relinquished by (Signature/Affiliation)	Date Time	3. Received by (Signature/Affiliation)	Date Time

Geosyntec consultants 10875 Rancho Bernardo Road, Suite 200, San Diego, CA 92127 (858) 674-6559 Fax: (858) 674-6586

Return to Contents

FedEx Express US Airbill

8540 7985 0171

0200

FedEx RetrieCopy

1 From

Date

Sender's FedEx Account Number 247932208

Sender's Name

Phone

Company

Address

Dept./Floor/Suite/Room

City

State

ZIP

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone

Company

Recipient's Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City

State

ZIP

8540 7985 0171

4a Express Package Service To add SATURDAY Delivery, see Section 6.

1 FedEx Priority Overnight — Next business morning.*

5 FedEx Standard Overnight — Next business afternoon.*

6 FedEx Freight — Earliest afternoon delivery.*

3 FedEx 2Day — Second business day.*

20 FedEx Express Saver — Third business day.*

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service To add SATURDAY Delivery, see Section 6.

7 FedEx 1Day Freight* — Next business day.**

8 FedEx 2Day Freight — Second business day.**

83 FedEx Freight — Third business day.**

* Call for Confirmation:

5 Packaging

6 FedEx Envelope*

2 FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.

3 FedEx Box

4 FedEx Tube

Other

6 Special Handling

Include FedEx address in Section 3.

3 SATURDAY Delivery — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes.

1 HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.

31 HOLD Saturday at FedEx Location — Available for FedEx Priority Overnight and FedEx 2Day to selections.

Does this shipment contain dangerous goods?

One box must be checked.

No

4 Yes — As per attached Shipper's Declaration.

Yes — Shipper's Declaration not required.

6 Dry Ice — Dry Ice, 9, UN 1845 ____ x

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

1 Sender — Acct. No. in Section 1 will be billed.

2 Recipient

3 Third Party

4 Credit Card

5 Cash/Check

Train Recip.

Acct. No.

FedEx Acct. No.
Credit Card No.

Total Packages

Total Weight

Total Charges

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

No Signature Required — Package may be left without obtaining a signature for delivery.

10 Direct Signature — Anyone at recipient's address may sign for delivery. Fee applies.

34 Indirect Signature — If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. Fee applies.

520

Rev. Date 5/05 • Part #158281 • ©1994–2005 FedEx • PRINTED IN U.S.A. SRY

Return to Customer

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 0460

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Geosyntec

DATE: 07 / 9 / 2015

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 5.9 °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: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 836

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	☐	☑	☐ pH 5 7/9/15
Proper preservation chemical(s) noted on COC and/or sample container	☑	☐	☐
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☑ Total Metals (C-3) ☑ 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: 150603A)

Aqueous: ☐ VOA ☑ VOA**h** (3) ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☑ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB (3) ☑ 250CGB**s** (3) ☑ 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: 836

Reviewed by: ZTG

* (C-4) Received 5 -250 ml plastic poly, 836

Return to Contents

eurofins | Calscience

WORK ORDER NUMBER: 15-07- 0460

SAMPLE ANOMALY REPORT

DATE: 07 / 09 / 2015

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	* (-3) all Containers
☐ 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	(-2),(-4) 1 of 3 vials received broken
☑ 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: (-3) received 3 vials / HCL + 1 - 250 ml plastic unpreserved + 1 - 1 Liter Amber unpreserved

Reported by: 826

Reviewed by: 778

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 06/30/2015

Ryan Smith

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	CG Roxane
BCL Project:	Bacteriological
BCL Work Order:	1515578
Invoice ID:	B207029

Enclosed are the results of analyses for samples received by the laboratory on 6/25/2015. 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

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Table of Contents

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 06/30/2015 14:14
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1515578-01	**COC Number:**	---	**Receive Date:**	06/25/2015 18:55
	Project Number:	---	**Sampling Date:**	06/25/2015 14:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	AP-4 Vapor Probe Boring next to Arsenic Pond	**Lab Matrix:**	Water
	Sampled By:	K. A.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	1.4

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 06/30/2015 14:14
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Ryan Smith

1515578-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	AP-4 Vapor Probe Boring next to Arsenic Pond	**Sample Site:**	
Sampled By:	K. A.	**Residual Chlorine, ppm:**	
Receive Date:	06/25/2015 18:55	**Temperature, C:**	1.4
Sampling Date:	06/25/2015 14:35		
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	06/25/2015 19:00	06/27/2015	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	TMT	1	06/25/2015 19:00	06/27/2015	
Total Coliform, Density	<2	MPN/100ml	SM-9221B	TMT	1	06/25/2015 19:00	06/27/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	TMT	1	06/25/2015 19:00	06/27/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	TMT	1	06/25/2015 19:00	06/27/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 06/30/2015 14:14
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Ryan Smith

Notes And Definitions

MPN Most Probable Number

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 07/10/2015

Ryan Smith

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	[none]
BCL Project:	Bacteriological
BCL Work Order:	1516292
Invoice ID:	B207834

Enclosed are the results of analyses for samples received by the laboratory on 7/6/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Table of Contents

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/10/2015 11:49
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1516292-01	**COC Number:**	---	**Receive Date:**	07/06/2015 17:25
	Project Number:	---	**Sampling Date:**	07/06/2015 13:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-07-070615	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	1.2

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/10/2015 11:49
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516292-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-07-070615	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/06/2015 17:25	**Temperature, C:**	1.2
Sampling Date:	07/06/2015 13:15		
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	07/07/2015 08:30	07/09/2015	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	07/07/2015 08:30	07/09/2015	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	07/07/2015 08:30	07/09/2015	
Fecal Coliform, Confirmed Test	1	Positive Tubes	SM-9221E	FBV	1	07/07/2015 08:30	07/09/2015	
Fecal Coliform, Density	2.0	MPN/100ml	SM-9221E	FBV	1	07/07/2015 08:30	07/09/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/10/2015 11:49
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

Notes And Definitions

MPN Most Probable Number

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 07/13/2015

Ryan Smith

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Client Project:	[none]
BCL Project:	Bacteriological
BCL Work Order:	1516465
Invoice ID:	B207916

Enclosed are the results of analyses for samples received by the laboratory on 7/7/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Table of Contents

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1516465-01	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 12:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-08-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	0.5
1516465-02	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 13:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-09-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1516465-03	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 14:19
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-06-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1516465-04	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 14:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-04-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1516465-05	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 14:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-03-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1516465-06	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 14:27
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-05-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1516465-07	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 14:37
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-01-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	
1516465-08	**COC Number:**	---	**Receive Date:**	07/07/2015 17:36
	Project Number:	---	**Sampling Date:**	07/07/2015 15:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-02-070715	**Lab Matrix:**	Water
	Sampled By:	N.G.	**Sample Type:**	Groundwater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-08-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	0.5
Sampling Date:	07/07/2015 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	FBV	1	07/08/2015 08:30	07/11/2015	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/11/2015	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/11/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/11/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/11/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-02

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-09-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 13:45		
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	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Density	<2	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-03

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-06-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 14:19		
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	4	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Density	<2	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-04

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-04-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 14:20		
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	07/08/2015 08:30	07/10/2015	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/10/2015	
Total Coliform, Density	<2	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/10/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/10/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/10/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-05

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-03-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 14:30		
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	5	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-06

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-05-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 14:27		
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	8	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-07

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-01-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 14:37		
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	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Confirmed Test	1	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Total Coliform, Density	2.0	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/12/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

1516465-08

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	MW-02-070715	**Sample Site:**	
Sampled By:	N.G.	**Residual Chlorine, ppm:**	
Receive Date:	07/07/2015 17:36	**Temperature, C:**	
Sampling Date:	07/07/2015 15:25		
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	07/08/2015 08:30	07/10/2015	
Total Coliform, Confirmed Test	0	Positive Tubes	SM-9221B	FBV	1	07/08/2015 08:30	07/10/2015	
Total Coliform, Density	<2	MPN/100ml	SM-9221B	FBV	1	07/08/2015 08:30	07/10/2015	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	07/08/2015 08:30	07/10/2015	
Fecal Coliform, Density	<2	MPN/100ml	SM-9221E	FBV	1	07/08/2015 08:30	07/10/2015	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Geosyntec Consultants
924 Anacapa Street Suite 4A
Santa Barbara, CA 93101

Reported: 07/13/2015 10:26
Project: Bacteriological
Project Number: [none]
Project Manager: Ryan Smith

Notes And Definitions

MPN Most Probable Number

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

APPENDIX G

DATA VALIDATION MEMORANDUM

Crystal Geyser Olancha
Stage 2A Data Validation Summary

08/05/15

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Report 15-07-0551

The air samples 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. The organic data 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, with the following exceptions.

The LCSD recovery of methylene chloride was low and outside the laboratory specified acceptance criteria. Therefore, the undetected values of methylene chloride in the associated samples were UJ qualified as estimated less than the reporting limits (RLs), based on professional and technical judgment.

A field duplicate sample, SV-01-5-070815-DUP, was collected. Acceptable precision (RPD $\leq$30%) was demonstrated between the field duplicate and the original sample, SV-01-5-070815, with the following exceptions.

Chloromethane was detected in the original sample, but not in the field duplicate, resulting in a noncalculable RPD between the results. In addition, benzene, 2-butanone, ethylbenzene, tetrachloroethene, toluene and o-xylene were detected in the field duplicate, but not in the original sample, resulting in noncalculable RPDs between the results. Therefore, based on technical and professional judgment, the concentrations of these compounds in the field duplicate pair were J qualified as estimated and the nondetect values were UJ qualified as estimated less than the RLs.

Respectfully submitted by:

Mary Tyler
Geosyntec Consultants
07/29/15

Reviewed by:

Julia K. Caprio
Geosyntec Consultants
8/05/15

Crystal Geyser
Stage 2A Data Validation Summary

08/05/15

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Reports 15-06-1886, 15-06-1979 and 15-06-2190

The soil samples were analyzed for volatile organic compounds (VOCs) by EPA methods 5035/8260B, semivolatile organic compounds (SVOCs) by EPA methods 3545/8270C, carbon chain hydrocarbons (C6-C44) by EPA methods 3550/8015B (M), CAM 17 metals (including mercury) by EPA methods 3050B/6010B and 7471A, total alkalinity as $CaCO_3$ by Standard Method 2320B (M), ammonia nitrogen by Standard Method 4500-NH3 B/C (M), nitrate-nitrite as N by Standard Methods 4500-NO3 E, anions (chloride and sulfate) by EPA method 300.0, total phosphorus by Standard Method 4500 B/E (M), total phosphate by Standard Method 4500 B/E (M), pH by EPA method 9045D (M), total kjeldahl nitrogen (TKN) by Standard Method 4500-N Org B (M), total nitrogen by calculation by Standard Method 4500 (M), total dissolved solids (TDS) by Standard Method 2540C (M), surfactants (methylene blue active substances, MBAS) by Standard Method 5540C (M), total coliform and fecal coliform by Standard Method 9221B.

The samples were analyzed at Truesdail Laboratories, Inc., Irvine, California for total and fecal coliforms and the other analyses were performed by Eurofins/Calscience, Garden Grove, California.

The data were validated at an EPA Stage 2A data validation level. The organic data 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 methods referenced by the data package and professional and technical judgment. The inorganic 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 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, with the exceptions of the R qualified (rejected) data, the data as qualified are usable for meeting project objectives. Qualified data (J, UJ) should be used within the limitations of the qualification.

The samples were analyzed within the method specified holding times, with the following exceptions.

The pH analyses were performed outside the 15 minute holding times, by more than twice the holding times. No qualifications were applied to the pH data based on technical and professional judgment.

The MBAS analyses in reports 15-06-1886 and 15-06-2190 were performed 8-9 days and 5 days after collection, respectively, more than twice the 48-hour holding time. Therefore, based on technical and professional judgment, the nondetect values of MBAS in the associated samples were R qualified as rejected.

The total and fecal coliform results reported by Standard Methods 9221B in laboratory report 15-06-2190 were analyzed 8 and 9 days after collection; the total and fecal coliform results reported by

Standard Methods 9221B in laboratory report 15-06-1979 were analyzed 4-6 days after collection; the total and fecal coliform results reported by Standard Methods 9221B in laboratory report 15-06-1886 were analyzed 6 days after collection. These analyses were more than twice the 24-hour holding time. Therefore, based on technical and professional judgment, the nondetect values of total and fecal coliforms in the associated samples were R qualified as rejected due to the gross exceedances of the holding time.

The samples in laboratory report 15-06-2190 were received 5 days after collection, at 20.6^{o}C. Based on technical and professional judgment, the nondetect values of the VOCs, SVOCs and TPH were R qualified as rejected. In addition, for the other analyses, with the exception of pH, MBAS and the metals analyses by EPA method 6010B, the nondetect values were UJ qualified as estimated less than the RLs and the concentrations were J qualified as estimated, based on technical and professional judgment. Based on professional and technical judgment, no qualifications were applied to the pH results due to the temperature at laboratory receipt. The MBAS results were R qualified as rejected due to the gross exceedances of the holding times (analyzed more than 2 times the holding time); therefore, no additional qualifications were applied to the data due to the temperature at laboratory receipt. There is no temperature requirement for the preservation of soils for metals analysis; therefore, no qualifications were applied to the data due to the temperature at laboratory receipt.

The results for the laboratory method blanks, laboratory control samples/laboratory control sample duplicate (LCS/LCSD) pairs, matrix spike/matrix spike duplicate (MS/MSD) pairs, laboratory duplicates and surrogates were within the laboratory specified acceptance criteria, with the following exceptions.

There were no QC sample results (blanks or control samples) reported with the total and fecal coliform results. Since the results were R qualified as rejected due to analyses outside the holding time, no additional qualifications were applied to the data.

One or both of the LCS/LCSD recoveries were low and outside the laboratory specified acceptance criteria in batch 150630L008 for 1,1-dichloroethene and trans-1,2-dichloroethene and in batch 150630L007 for dichlorodifluromethane (report 15-06-2190). Since the nondetect results for these compounds in the associated samples were R qualified as rejected due to the lag time for laboratory receipt and the temperature at laboratory receipt, no additional qualifications were applied to the data.

The following SVOC compounds were not spiked into the LCSs; therefore, based on professional and technical judgment, the undetected values of these SVOCs in the associated samples were UJ qualified as estimated less than the MDLs.

2,4,5-Trichlorophenol	2,4-Dinitrophenol	2-Nitrophenol
1,2-Dichlorobenzene	2,6-Dinitrotoluene	3,3-Dichlorobenzidine
1,3-Dichlorobenzene	2-Chloronaphthalene	Isophorone
1-Methylnaphthalene	2-Chlorophenol	4-Bromophenyl phenyl ether
2,4,6-Trichlorophenol	2-Methyl-4,6-Dinitrophenol	4-Chloroaniline
2,4-Dichlorophenol	2-Methylnaphthalene	4-Chlorophenyl Phenyl Ether
2,4-Dimethylphenol	2-Nitroaniline	Dibenz[a,h]anthracene

Dibenzofuran	Benzo[k]fluoranthene	Hexachlorobutadiene (HCBD)
p-Nitroaniline	Benzoic Acid	Hexachlorocyclopentadiene
Chrysene	Benzyl alcohol	Hexachloroethane
Aniline	Bis(2-Chloroethoxy)Methane	Indeno(1,2,3-cd)pyrene
Anthracene	Bis(2-Chloroethyl) Ether	m-Nitroaniline
Pyridine	Bis(2-chloroisopropyl) ether	Phenanthrene
Azobenzene	Dibutyl phthalate	Nitrobenzene
Benzidine	Diethyl phthalate	n-Nitrosodimethylamine (NDMA)
Benz[a]anthracene	Di-n-octyl phthalate	n-Nitrosodiphenylamine
Benzo(a)pyrene	Bis(2-ethylhexyl) phthalate	3/4-Methylphenol
Benzo(b)fluoranthene	Fluoranthene	
Benzo(g,h,i)perylene	Hexachlorobenzene	

A field duplicate sample, AP-4-05-062515-DUP, was collected and reported in laboratory report 15-06-2190. Acceptable precision (RPD $\leq$50%) was demonstrated between the field duplicate and the original sample, AP-4-05-062515, with the following exceptions.

The RPDs for lead and nickel were greater than 50%; therefore, the concentrations of lead and nickel in the field duplicate pair were J qualified as estimated. In addition, ammonia was detected in the original sample, but not in the field duplicate, resulting in a noncalculable RPD between the results. Therefore, based on technical and professional judgment, the concentration of ammonia in sample AP-4-05-062515 was J qualified as estimated and the nondetect value in the field duplicate, AP-4-05-062515-DUP, was UJ qualified as estimated less than the RL.

Respectfully submitted by:

Mary Tyler
Geosyntec Consultants
07/29/15

Reviewed by:

Julia K. Caprio
Geosyntec Consultants
08/05/15

Crystal Geyser
Stage 2A Data Validation Summary

8/10/15

Summary of the Stage 2A Data Validation of BC Laboratories Work Orders 1516292, 1515578 and 1516465

The water samples were analyzed for total coliform and fecal coliform by Standard Method 9221B.

The samples were analyzed at BC Laboratories, Inc., Bakersfield, California for total and fecal coliforms.

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, with the exception of the rejected data due to gross exceedance of the holding time, as described below.

The sample in laboratory report 1515578 was analyzed within the 8 hour holding time. The samples in laboratory reports 1516292 and 1516465 were analyzed more than 16 hours after collection, which are gross exceedances of the holding time. Therefore, based on technical and professional judgment, the undetected values of total and fecal coliforms in the samples in laboratory reports 1516292 and 1516465 were R qualified as rejected and the concentrations were J qualified as estimated.

The positive and negative control results were within the laboratory specified acceptance criteria.

Respectfully submitted by:

Mary Tyler
Geosyntec Consultants
08/10/15

Reviewed by:

Julia K. Caprio
Geosyntec Consultants
8/10/15

Crystal Geyser
Stage 2A Data Validation Summary

08/05/15

Summary of the Stage 2A Data Validation of Eurofins Calscience Laboratory Reports 15-06-2184, 15-07-0357 and 15-07-0460

The water samples were analyzed for volatile organic compounds (VOCs) by EPA methods 5030C/8260B, semivolatile organic compounds (SVOCs) by EPA methods 3510C/8270C, carbon chain hydrocarbons (C6-C44) by EPA methods 3510C/8015B (M), calcium, magnesium and sodium by EPA methods 200.7, total and dissolved CAM 17 metals (including mercury) by EPA methods 3010A/6010B, 3005A/6010B and 7470A, total alkalinity as $CaCO_3$ by Standard Method 2320B, ammonia nitrogen by Standard Method 4500-NH3 B/C, nitrate-nitrite as N by Standard Methods 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, pH by Standard Method 4500 H+B, total kjeldahl nitrogen (TKN) by Standard Method 4500-N Org B, total nitrogen by calculation, total dissolved solids (TDS) by Standard Method 2540C and surfactants (methylene blue active substances, MBAS) by Standard Method 5540C.

The samples were analyzed by Eurofins/Calscience, Garden Grove, California.

The data were validated at an EPA Stage 2A data validation level. The organic data 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 methods referenced by the data package and professional and technical judgment. The inorganic 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 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, with the exceptions of the R qualified (rejected) data, the data as qualified (J, UJ) are usable for meeting project objectives. Qualified data should be used within the limitations of the qualification.

A trip blank was sent in with the samples reported in laboratory report 15-07-0357, but it was not listed on the chain of custody. VOCs were not detected in the trip blank above the RLs.

The SVOC sample container for MW-07-070615 (laboratory report 15-07-0357) was received broken upon laboratory receipt, so analysis was not performed.

The samples were analyzed within the method specified holding times, with the following exceptions.

The pH analyses were performed outside the 15 minute holding times, by more than twice the holding times. No qualifications were applied to the pH data, based on technical and professional judgment.

The nitrate-nitrite analysis of sample MW-07-070615 (laboratory report 15-07-0357) was flagged by the laboratory to indicate analysis outside the holding time. The laboratory report indicated the analysis was

2 days after collection. Since the holding time for nitrate-nitrite is 28 days after collection, no qualifications were applied to the data.

The MBAS analyses in report 15-06-2184 were performed 4 days after collection, outside the 48-hour holding time. Therefore, based on technical and professional judgment, the nondetect values of MBAS in the associated samples were UJ qualified as estimated less than the RLs.

The samples in laboratory report 15-06-2184 were received 3 days after collection, at 16.3^{o}C. Based on technical and professional judgment, the nondetect values of the VOCs and SVOCs were R qualified as rejected. In addition, for the other analyses, with the exception of pH and the metals analyses by EPA methods 200.7 and 6010B, the nondetect values were UJ qualified as estimated less than the RLs and the concentrations were J qualified as estimated, based on technical and professional judgment. Based on professional and technical judgment, no qualifications were applied to the pH results due to the temperature at laboratory receipt. There is no temperature requirement for the preservation of waters for metals analysis; therefore, no qualifications were applied to the metals data due to the temperature at laboratory receipt.

The samples in laboratory report 15-07-0357 were received the day after collection, at 10.5^{o}C, 14.6^{o}C and 16.1^{o}C. Based on technical and professional judgment, with the exception of pH and the metals analyses by EPA methods 200.7 and 6010B, for the other analyses nondetect values were UJ qualified as estimated less than the RLs and the concentrations were J qualified as estimated, based on technical and professional judgment. Based on professional and technical judgment, no qualifications were applied to the pH results due to the temperature at laboratory receipt. There is no temperature requirement for the preservation of waters for metals analysis by EPA methods 200.7 and 6010B.

The results for the laboratory method blanks, trip blanks, equipment blanks, laboratory control samples/laboratory control sample duplicate (LCS/LCSD) pairs, matrix spike/matrix spike duplicate (MS/MSD) pairs, laboratory duplicates and surrogates were within the laboratory specified acceptance criteria, with the following exceptions.

One or both of the beryllium, cadmium, cobalt, lead and thallium MS/MSD recoveries were high and outside the laboratory specified acceptance criteria in the MS/MSD pair using sample MW-07-070615. Since beryllium, cadmium, cobalt, lead and thallium were not detected in sample MW-07-070615, no qualifications were applied to the data. In addition, one or both of the copper, nickel, vanadium and zinc MS/MSD recoveries were high and outside the laboratory specified acceptance criteria in the MS/MSD pair using sample MW-07-070615. Therefore, the concentrations of copper, nickel, vanadium and zinc in sample MW-07-070615 were J+ qualified as estimated with high biases.

The LCS/LCSD recoveries of n-nitrosodiphenylamine in batch 150709L02 in report 15-07-0357, in batch 150630L12 in report 15-06-2184 and in batch 150709L02 in report 15-07-0460 were high and outside the laboratory specified acceptance criteria. Since n-nitrosodiphenylamine was not detected in the associated samples, no qualifications were applied to the data.

One or both of the LCS/LCSD recoveries of 4-methyl-2-pentanone and 1,2,3-trichlorpropane in batch 150709L002 in report 15-07-0357 were high and outside the laboratory specified acceptance criteria.

Since 4-methyl-2-pentanone and 1,2,3-trichlorpropane were not detected in the associated samples, no qualifications were applied to the data.

The LCS recovery of 1,1-dichloroethene in batch 150702L023 in report 15-06-2184 was high and outside the laboratory specified acceptance criteria. Since 1,1-dichloroethene was not detected in the associated samples, no qualifications were applied to the data. In addition, the vinyl chloride LCS/LCSD RPD was high and outside the laboratory specified acceptance criteria. Since vinyl chloride was not detected in the associated samples, no qualifications were applied to the data.

The 1,2-dichloroethane-d4 surrogate recovery in sample AP-4-10-062515 was high and outside the laboratory specified acceptance criteria. Since the other three VOC surrogates were acceptable and VOCs were not detected in the sample, no qualifications were applied to the data.

The samples were analyzed for total and dissolved CAM 17 metals. The total metals concentrations were greater than the dissolved metals concentrations, with the following exceptions indicated in the table below. No qualifications were applied to the concentrations if the RPD between the total and dissolved concentrations was ≤30%. The concentrations were J qualified as estimated for RPDs >30%. If the total metal was not detected and the dissolved metal was detected, the undetected total metal value was UJ qualified as estimated less than the RL and the dissolved concentration was J qualified as estimated.

Client Sample ID	Compound	Laboratory Concentration (mg/L)	Laboratory Flag	RPD	Validation Concentration (mg/L)	Validation Qualifier*	Reason Code**
AP-4-10-062515	Arsenic	0.0801	NA	99	0.0801	J	13
AP-4-10-062515	Arsenic (dissolved)	0.239	NA		0.239	J	13
AP-4-10-062515	Barium	0.01	U	NC	0.01	UJ	13
AP-4-10-062515	Barium (dissolved)	1.3	NA		1.3	J	13
AP-4-10-062515	Chromium	0.01	U	NC	0.01	UJ	13
AP-4-10-062515	Chromium (dissolved)	0.0133	NA		0.0133	J	13
AP-4-10-062515	Copper	0.01	U	NC	0.01	UJ	13
AP-4-10-062515	Copper (dissolved)	0.0836	NA		0.0836	J	13
AP-4-10-062515	Lead	0.01	U	NC	0.01	UJ	13
AP-4-10-062515	Lead (dissolved)	0.0161	NA		0.0161	J	13
AP-4-10-062515	Molybdenum	0.0543	NA	119	0.0543	J	13
AP-4-10-062515	Molybdenum (dissolved)	0.137	NA		0.137	J	13
AP-4-10-062515	Vanadium	0.0221	NA	158	0.0221	J	13
AP-4-10-062515	Vanadium (dissolved)	0.187	NA		0.187	J	13

Client Sample ID	Compound	Laboratory Concentration (mg/L)	Laboratory Flag	RPD	Validation Concentration (mg/L)	Validation Qualifier*	Reason Code**
AP-4-10-062515	Zinc	0.0116	NA	184	0.0116	J	13
AP-4-10-062515	Zinc (dissolved)	0.282	NA		0.282	J	13
MW-03-070715	Arsenic	0.0201	NA	2	NA	NA	NA
MW-03-070715	Arsenic (dissolved)	0.0205	NA		NA	NA	NA
MW-04-070615	Antimony	0.016	NA	43	0.016	J	13
MW-04-070615	Antimony (dissolved)	0.0247	NA		0.0247	J	13
MW-04-070615	Copper	0.0433	NA	11	NA	NA	NA
MW-04-070615	Copper (dissolved)	0.0482	NA		NA	NA	NA
MW-04-070615	Silver	0.005	U	NC	0.005	UJ	13
MW-04-070615	Silver (dissolved)	0.0068	NA		0.0068	J	13
MW-04-070615-DUP	Antimony	0.015	U	NC	0.015	UJ	13
MW-04-070615-DUP	Antimony (dissolved)	0.0203	NA		0.0203	J	13
MW-04-070615-DUP	Silver	0.005	U	NC	0.005	UJ	13
MW-04-070615-DUP	Silver (dissolved)	0.00791	NA		0.00791	J	13
MW-05-070715	Copper	0.0473	NA	7	NA	NA	NA
MW-05-070715	Copper (dissolved)	0.0505	NA		NA	NA	NA
MW-05-070715	Silver	0.005	U	NC	0.005	UJ	13
MW-05-070715	Silver (dissolved)	0.00559	NA		0.00559	J	13
MW-07-070615	Copper	0.0162	NA	79	0.0162	J	13
MW-07-070615	Copper (dissolved)	0.0372	NA		0.0372	J	13
MW-08-070715	Zinc	0.01	U	31	0.01	UJ	13
MW-08-070715	Zinc (dissolved)	0.0136	NA		0.0136	J	13
MW-02-070715	Arsenic	0.021	NA	10	NA	NA	NA
MW-02-070715	Arsenic (dissolved)	0.0233	NA		NA	NA	NA
MW-09-070715	Barium	0.0432	NA	2	NA	NA	NA
MW-09-070715	Barium (dissolved)	0.0442	NA		NA	NA	NA

A field duplicate sample, MW-04-070615-DUP, was collected and reported in laboratory report 15-07-0357. Acceptable precision (RPD $\leq$30%) was demonstrated between the field duplicate and the original sample, MW-04-070615, with the following exceptions.

The RPD for zinc was greater than 30%; therefore, the concentrations of zinc in the field duplicate pair were J qualified as estimated. In addition, total antimony and dissolved barium were detected in the original sample, but not in the field duplicate, resulting in noncalculable RPDs between the results. Therefore, based on technical and professional judgment, the concentrations of total antimony and dissolved barium in sample MW-04-070615 were J qualified as estimated and the nondetect values in the field duplicate, MW-04-070615-DUP, were UJ qualified as estimated less than the RLs.

Respectfully submitted by:

Mary Tyler
Geosyntec Consultants
07/29/15

Reviewed by:

Julia K. Caprio
Geosyntec Consultants
7/xx/15