Prepared for

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

REVISED REPORT OF WASTE DISCHARGE

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

Prepared by

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engineers | scientists | innovators

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18 April 2016

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Olancha Spring Water Bottling Facility

1210 South U.S. Highway 395
Olancha, California

Prepared for

Crystal Geyser Roxane

18 April 2016

for

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1. INTRODUCTION

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

Geosyntec previously submitted a *Report of Waste Discharge* (Geosyntec 2015a) to the Lahontan Regional Water Quality Control Board (LRWQCB) on October 21, 2015 to address the requirements of the Notice of Violation (NOV) memo dated April 30, 2015. The NOV was issued for unauthorized discharge of industrial wastewater at the Site. Upon review, the LRWQCB determined the ROWD to be incomplete, and outlined the additional information required in a letter dated November 20, 2015 (LRWQCB 2015a). At the request of the LRWQCB, a meeting was held between Geosyntec, CGR, and LRWQCB staff in Olancha, California on March 3, 2016 to discuss the additional information needed to complete the ROWD.

This Revised ROWD meets the requirements in Water Code sections 13160 and 13260, which requires a complete ROWD for discharges of waste that could affect the quality of the waters of the state. This Revised ROWD fully describes and characterizes the discharges at the Site as required in the NOV memo dated April 30, 2015, and includes the information requested by the LRWQCB in their November 20, 2015 letter and in the March 3, 2016 meeting, including:

- Environmental documents, technical reports, plans, diagrams, maps, mitigation and monitoring proposals, and other documents that characterize the discharge and its impacts upon receiving waters (groundwater).

- State Water Resources Control Board (State Water Board) Form 200 - Application for Report of Waste Discharge.

- Complete characterization of all waste streams generated at the Facility, including discharge rates/volumes.

- A narrative description of each facility process that generates a waste stream, including the arsenic removal media regeneration process. The narrative also identifies all products added during each facility process and the purpose of each product, as it relates to the process being described.

- System (flow) diagrams illustrating facility processes that generate waste streams. The system diagrams identify products added during facility processes, and where in the process they are added.

- Scaled plans illustrating the Facility's waste stream collection, waste treatment (e.g., pH adjustment), storage, and conveyance systems including all waste treatment locations. The scaled plans identify system materials and include plan details/typicals (plan and cross-sectional views) of collection (e.g., drains, floor trenches), waste treatment, storage, and conveyance systems.

- Scaled plans (plan and cross-sectional views) illustrating all Facility waste disposal facilities.

- A description and analysis (constituents) of background groundwater quality (up-gradient of the Facility) with the supporting data and information. The analysis identifies the monitoring and/or supply wells from which data was obtained for the analysis, the well construction details for the wells used in the analysis, and groundwater elevation data. A scaled site map showing the locations of the wells used in the analysis is provided.

- A description and analysis of the Facility's impacts upon groundwater quality with the supporting data and information. The analysis identifies the monitoring and/or supply wells from which data was obtained for the analysis, the well construction details for the wells used in the analysis, and groundwater elevation data. In addition, a scaled Site map showing the locations of the wells used in the analysis is provided.

Per LRWQCB request, several supplemental documents are also included as appendices of this Revised ROWD, including:

- *Interim Remedial Measures Final Report* summarizing the decommissioning of the Arsenic Pond (**Appendix A**);

- Copy of all waste disposal documentation associated with removal and disposal of the former Arsenic Pond liner and its contents (**Appendix B**)

- California Environmental Reporting System (CERS) Hazardous Materials Business Plan (HMBP) Submittal (**Appendix C**);

- Site Spill Prevention, Control, and Countermeasure (SPCC) Plan which includes updates based on the current arsenic removal media regeneration process (**Appendix D**);

- As-built plans for the East Pond and Fire Pond;

- A detailed Stormwater Flow Diagram and Stormwater Pollution Prevention Plan (SWPPP) (**Appendix E**).

- A grading permit from the County of Inyo was issued to CGR for the former Arsenic Pond (AP). CGR has contacted the County of Inyo records department on multiple occasions, however, the County of Inyo has not been able to locate a copy of this permit. No other permits specific to installation of the pond were found.

In the March meeting between CGR, Geosyntec, and the LRWQCB, options for the ultimate discharge of wastewater and stormwater were discussed. One of the options reviewed was conveying the wastewater and stormwater to the Los Angeles Department of Water and Power (LADWP) to use for dust control at the dry Owens Lake bed. LADWP maintains a WDR permit for discharging water onto the lake bed for dust suppression, and CGR is considering providing discharge water to LADWP under their WRD in the future.

CGR is currently in discussions with LADWP to evaluate this as a viable discharge option. Preliminarily, the option appears to provide advantages to both parties, and would have a significant benefit to the public. CGR is pursuing this option with LADWP. However, as of this date, no firm details are available and the option cannot be firmly proposed as part of this ROWD. It is hoped that this option could be implemented by the end of 2016.

In the absence of a firm plan from LADWP, CGR is proposing to come into compliance with the Waste Discharge Requirements (WDR) discharge permit and all other applicable regulations as required by the LRWQCB. Currently, wastewater is generated as part of domestic water, production water, and industrial water (cooling tower, sanitation, and arsenic filter regeneration) discharge processes. The majority of the wastewater discharged is routed to the East Pond (EP) which is an unlined, infiltration pond located east of the Site buildings and production wells. Some industrial wastewater associated with sanitation and production cycles in the southern bottling warehouse is routed to the Fire Pond (FP) which is a lined pond with an overflow outlet. The overflow of the FP is discharged to ground surface and infiltrates as well. Additionally, as indicated in the original ROWD, CGR intends to co-mingle stormwater runoff with the industrial wastewater discharges covered in this ROWD. The proposed discharge location for stormwater from the majority of the impervious areas of the Site will be to the EP. Additionally, design stormwater and process water flow calculations and infiltration pond design drawings are provided in the SWPPP (see SWPPP Figures S1 through S3, and Attachment L).

2. GENERAL SITE INFORMATION

The Site occupies approximately 170 acres at 1210 South U.S. Highway 395, adjacent to Highway 395, in Olancha, California (**Figure 1**). Regionally, the Site is located in the southern portion of the Owens Valley. Owens Lake (dry lake bed) is located approximately a half mile east of the Site, and the base of the Sierra Nevada Mountains is located one 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 a half mile west of the Site.

A summary of Site operations and features is presented in Section 2.1. A description of regional geology is presented in Section 2.1. Regional and site hydrogeology are described in Section 2.2, and a summary of historical groundwater investigations is presented in Section 2.3.

2.1 Site Operations and Features

The Site is an active spring water bottling plant consisting of two large bottling-production and warehouse buildings, CGR North and CGR South (**Figure 2**), which contain a total of six main bottling production lines. Scaled plot plans of the Site are included as **Appendix F**. Groundwater used for bottled water production is sourced from two onsite groundwater production wells, CGR-2 and CGR-7. Domestic water used at the plant is produced by two production wells, CGR-3 and CGR-4. Several groundwater monitoring wells are also present throughout the Site (**Figure 2**).

Process water and wastewater associated with Site activities is discharged to ground at the EP and FP. As described in Section 3, all CGR North discharge, and a portion of the CGR South discharge is conveyed to the EP. Wastewater associated with Bottle Filler #2, located at CGR South, is discharged to the FP (**Figure 2**). The EP is an unlined infiltration pond located approximately 2,300 feet east of CGR North, while the FP is a concrete lined pond south of CGR South. The FP contains a vertical screened pipe located within the pond to allow for overflow. When the water level exceeds the height of the screened pipe, pond water is discharged to ground surface directly south of the FP.

A third lined pond, the Arsenic Pond (AP) was previously used for receiving wastewater generated during arsenic filter regeneration events. The AP has been decommissioned and the final wastewater discharge to the Arsenic Pond occurred during a regeneration event on October 17, 2014, at such time that Department of Toxic Substances (“DTSC”) investigators were present. All hazardous waste water generated through the arsenic regeneration process is currently disposed of offsite under appropriate waste manifest documentation by a licensed waste transportation contractor (see Section 3.3.4 for additional description).

As described in the *Interim Remedial Measures Final Report* (**Appendix A**), the AP was decommissioned on May 11 through June 5, 2015. Waste disposal documentation of the AP is included as **Appendix B** of this report.

A copy of the latest CERS HMBP submittal is presented as **Appendix C**. The Site SPCC plan is presented as **Appendix D**, and a copy of the SWPPP is presented in **Appendix E**.

2.2 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.

2.3 Regional and Site Hydrogeology

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.

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 snowmelt water from the Sierra Nevada range and direct rainfall percolation into alluvium. Melt water and precipitation in the mountains 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, known locally as the “Spring Line fault”, intersects the property to the east of MW-02 and to the west of MW-03 (**Figure 3**). 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.

2.4 Summary of Previous Groundwater Investigations

There are nine previous hydrogeological Site studies relating to the CGR spring water bottling operations as provided in chronological order 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. Note: 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.

- *Phase 1 – Site Groundwater Investigation Report, Olancha Spring Water Bottling Facility,* Olancha, California, February 16, 2015 (Phase 1 Report). Completed by Geosyntec Consultants.

- *Phase 2 – Site Groundwater Investigation Report, Olancha Spring Water Bottling Facility*, Olancha, California, August 14, 2015 (Phase 2 Report). Completed by Geosyntec Consultants.

- *Third Quarter 2015 Groundwater Monitoring Report, Crystal Geyser Roxane Spring Water Bottling Facility*, Olancha, California, October 15, 2015. Completed by Geosyntec Consultants.

- *Fourth Quarter 2015 Groundwater Monitoring Report, Crystal Geyser Roxane Spring Water Bottling Facility,* Olancha, California, January 15, 2016. Completed by Geosyntec Consultants.

The majority of the hydrogeologic studies at the Site focused on the western portion of the property, where most of the production wells used for spring water bottling are located. As the subject of this ROWD is wastewater discharge to the southern and eastern portions of the Site, information relevant to that area is provided below. A more detailed discussion of water quality is provided in Section 5.

The 2015 Phase 1 investigation evaluated the groundwater and wastewater quality in the areas around the current and former waste discharge ponds (East Pond, Fire Pond, and Arsenic Pond). During the investigation, a total of 10 groundwater grab samples were collected to gather screening level data in order to better evaluate groundwater quality conditions and identify appropriate locations for groundwater monitoring wells. In addition, production and sanitation wastewater samples were collected during standard waste water discharge activities from both the northern and southern bottling plants, and from the waste discharge ponds to characterize the chemical composition of waste water generated.

Based on the screening level results of the Phase 1 investigation, the Phase 2 Site investigation was completed. This investigation included installation and sampling of nine groundwater monitoring wells in the shallow aquifer (**Figure 2**). Construction details and well gauging details for the wells are included in **Table 1**. The monitoring wells were installed within the upper shallow aquifer, with 15 foot well screens set between 5 and 25 feet below ground surface (ft bgs), with the exception of MW-01, which was installed with a screen interval between 18 and 33 ft bgs.

Groundwater samples were collected from the Site monitoring wells in July, September and December 2015, and analyzed for a wide range of water quality constituents including:

- CAM 17 metals, (total and dissolved) using Environmental Protection Agency (EPA) Method 6010B and 7470A ;
- Volatile organic compounds (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;

Results of groundwater sampling are presented in Section 4, along with results of sampling efforts of Site process water streams and pond discharges. An overall discussion of Site water quality is presented in Section 5.

3. WATER AND WASTEWATER PROCESSES

The following sections describe the water and wastewater processes and streams at the Site. A summary of treatment steps, wastewater flow rates, and wastewater composition is presented in **Appendix G**, while conceptual process flow diagrams are presented in **Appendix H**. Wastewater processes are separated into three categories based on water end-use:

- Domestic Water Circuit;
- Industrial Water Circuit; and
- Production Water Circuit.

The information presented in Section 3 and **Appendix G** is based on the *Facility Waste Generation and Discharge Systems Report* (CGR 2014), and additional data provided to Geosyntec by CGR. The *Facility Waste Generation and Discharge Systems Report* was produced by CGR in general accordance with the LRWQCB's investigation requirements for the Site.

3.1 Domestic Water Circuit

The Domestic Water Circuit includes all water extraction, treatment, and discharge related to the following locations/functions:

- Restroom facilities;
- Drinking water fountains;
- Laboratory facilities;
- Ozone generator cooling systems; and
- Hose bibs.

The following sections describe the water source, treatment, end-use, and discharges associated with the Domestic Water Circuit.

3.1.1 Domestic Water - Source

Groundwater used in the CGR North Domestic Water Circuit is sourced from extraction well CGR-3, while groundwater used in the CGR South Domestic Water Circuit is sourced from extraction well CGR-4. Both wells are equipped with stainless steel submersible pumps connected to HDPE pipelines that convey extracted groundwater from the wells to the Site facilities.

Historical sampling of these wells indicates that groundwater in the vicinity of well CGR-3 and CGR-4 contains naturally occurring dissolved arsenic at background concentrations of approximately 30 micrograms per liter (µg/L) and 15 µg/L, respectively. Notably, the maximum contaminant level for arsenic in drinking water is 10 µg/L. Prior to use, extracted groundwater is filtered and chlorinated, as described below. CGR's use and treatment of domestic water is permitted under the County of Inyo, Department of Environmental Health Services.

3.1.2 <u>Domestic Water - Bag Filtration</u>

Extracted groundwater is filtered through a bag filter system utilizing 5-micrometer (µm) polyester bag filters to remove larger particles such as silt, sediment, and sand. The bag filter system is equipped with pressure gauges, drain ports, valves and a sample port to facilitate operation, maintenance, and sampling. Prior to use, each bag filter is rinsed with extracted groundwater. Rinsate is collected in a floor drainage system and discharged to the EP.

Along with Domestic Water Circuit filtration, the bag filter systems are also utilized in the Industrial Water Circuit and Production Water Circuit. A total of seven bag filter units are installed at the Site. During bottled water production, a total of approximately 120 gallons of rinsate is generated per day and discharged to the EP (**Appendix G**). Bag filters are periodically replaced. Used bag filters are disposed of with general facility waste during routine trash collection.

3.1.3 <u>Domestic Water - Dissolved Arsenic Removal Units</u>

After bag filtration, domestic water is pumped through granular ferric oxide media from AdEdge Water Technologies, LLC, for the removal of arsenic. The application of iron oxide media for metals removal is well established in the water and wastewater industries. Upon the media becoming spent, granular ferric oxide media will be disposed of at an approved offsite disposal facility. To date, replacement of ferric oxide media has not been required. As such, there are no routine waste streams associated with this treatment process.

3.1.4 <u>Domestic Water - Chlorination</u>

Following arsenic removal, process water is conveyed to a plastic tank for chlorine disinfection. Chlorine is dosed into the process water stream by an automated process at a concentration of 0.2 to 0.8 milligrams per liter (mg/L). Domestic water is manually tested daily for chlorine concentration in the onsite laboratory. The presence of free chlorine is recorded daily. There are no waste streams that discharge associated with this process.

3.1.5 Domestic Water - Use and Wastewater Disposal

Following filtering and chlorination, domestic water is conveyed to restrooms, sinks, water fountains, and other similar locations. The primary use of domestic water at the Site is general restroom use. A small volume (approximately 75-100 gallons per week) is also used for cleaning floor surfaces. The discharge of this small volume of water is described in more detail in Section 3.3.6. The Site contains three restroom facilities at CGR South and one restroom facility at CGR North. Following water use, domestic wastewater is conveyed to one of four onsite septic tanks, which are regularly pumped out by a licensed third-party agent (Preferred Septic and Disposal, Inc.). Septic tank locations are shown in **Appendix F**.

3.2 Industrial Cooling Tower Circuit

A portion of the domestic water circuit is used for cooling in the bottling process. The industrial cooling tower circuit includes all process water conveyance, treatment, and discharge related to cooling tower operation. Five cooling towers are present at CGR North, while an additional seven cooling towers are present at CGR South. Cooling towers are located outdoors within concrete secondary containment basins with floor drains that collect cooling tower discharge water, and depending on the location of the cooling tower, the purge water is either conveyed to the EP or discharged to ground.

Prior to water reaching the cooling towers, water is filtered through the bag filtration process utilized in the domestic water circuit (Section 3.1.2). The water is then passed through an ion exchange resin. Ion exchange resin softens the water by exchanging calcium ions in the process water with sodium ions.

One to two gallons per year of the anti-scalant Sanacor® 2301-A, composed of 2% caustic soda, is added during cooling tower operation (CGR personal communication, April 2016). During cooling tower purging, each cooling tower is estimated to generate approximately 0.5 to 1.3 gallons per minute (gpm) of purge water. A total purge water volume of approximately 6,000,000 gallons is generated annually (**Appendix D**), and primarily conveyed to the EP.

3.3 Production Water Circuit

The Production Water Circuit includes all water extraction, treatment, and wastewater discharge related to bottled water production. Bottled water production operations are conducted approximately 260 days per year. A total of six bottling production lines are present at the Site, as outlined below:

- CGR North: Production Lines #3, #5, and #6; and
- CGR South: Production Lines #1, #2, and #4.

The following sections describe the water source, treatment, end-use, and discharges associated with the Production Water Circuit.

3.3.1 Production Water - Source

Groundwater used in the CGR North Production Water Circuit is sourced from extraction wells CGR-2 and CGR-7, while groundwater used in the CGR South Production Water Circuit is sourced only from extraction well CGR-2. Both wells are equipped with stainless steel submersible pumps connected to HDPE pipelines that convey extracted groundwater from the wells to the Site treatment facilities.

Historical sampling of these wells indicates that groundwater in the vicinity of well CGR-2 and CGR-7 contains naturally occurring dissolved arsenic at background concentrations of approximately 10 µg/L and 23 µg/L, respectively. The California RWQCB maximum contaminant level (MCL) for arsenic is 10 µg/L. Prior to use in bottled water production, extracted groundwater is filtered and processed as described in the following sections.

3.3.2 Production Water - Bag Filtration

Extracted groundwater is filtered through a bag filter system utilizing 5-µm polyester bag filters to remove larger particles such as silt, sediment, and sand. The bag filter system is equipped with pressure gauges, drain ports, valves and a sample port to facilitate operation, maintenance, and sampling. Prior to use, each bag filter is rinsed with extracted groundwater. Rinsate is collected in a floor drainage system and discharged to the EP.

As discussed in Section 3.1.1, seven bag filter units are installed at the Site, which filter water that is used in all three water circuits. During bottled water production, a total of approximately 120 gallons of rinseate is generated per day and discharged to the EP

(**Appendix D**). Bag filters are periodically replaced. Used bag filters are disposed of with general facility waste during routine trash collection.

3.3.3 Production Water - Ozonation

Following bag filtration, process water is conveyed to one of three stainless steel storage tanks for disinfection by ozonation. One 8,000 gallon tank is installed at CGR North, while two 8,000 gallon tanks are installed at CGR South, configured in parallel. The ozone concentration is analyzed and regulated by an automated system, which is regularly checked by onsite quality control staff. The ozone concentration of ozonated water typically ranges from approximately 0.02 to 0.07 mg/L.

Water storage tanks used for ozonation are routinely purged between production periods to avoid water stagnation in the tanks. Purged water is collected in a floor drain under the storage tanks and discharged to the EP. Since only ozone has been added to the water, and no chemicals are used for cleaning or sanitation of the storage tanks, purge water is simply comprised of filtered and ozonated groundwater. During bottled water production, approximately 3,000 gallons per day are purged from the CGR South storage tanks, while approximately 700 gallons per day are purged from the CGR North storage tank (**Appendix D**).

Two onsite ozone generators provide ozone to the tanks. Water from the Domestic Water Circuit is used in the cooling systems of the two ozone generators. Each day during bottled water production, a total of approximately 1,400 gallons of water is discharged from the ozone generators to the EP (**Appendix D**).

3.3.4 Dissolved Arsenic Removal Unit Regeneration

After ozonation, production water is pumped through one of three manganese sand media units for dissolved arsenic removal. Arsenic removal units and locations are outlined below.

- Production Lines #1, #2 and #4 (CGR South) - one unit comprised of two vessels in parallel;
- Production Lines #3 and #5 (CGR North) - one unit comprised of two vessels in parallel; and
- Production Line #6 (CGR North) - one unit comprised of one vessel.

Manganese sand media units are regenerated approximately once every three to four months[1] to remove adsorbed arsenic and restore media treatment efficiency. Regeneration timing is based on monitoring results from an onsite arsenic analyzer. A 30% caustic soda solution and a dilute sulfuric acid solution are used during the regeneration process. The initial wastewater generated during media regeneration events deemed above drinking water limits (approximately the first 70,000 gallons per event)[2] is captured by vacuum truck and disposed of at an offsite disposal facility under appropriate waste transportation manifest. Subsequently, the units are flushed with an additional approximately 30,000 to 40,000 gallons of raw groundwater pumped through the manganese sand media units at the completion of regeneration activities and discharged to EP (**Appendix D**). Detailed testing during a recent backwash event indicates that this backwash water does not exceed drinking water standards. A detailed step-by-step description of the regeneration process is included as **Appendix I**.

3.3.5 Production Water - Microfiltration

Following dissolved arsenic removal, production water is conveyed to a 0.1 µm microfiltration system to remove fine particulates prior to bottling. There are two microfiltration units in CGR North and one microfiltration unit in CGR South. Approximately every 30 minutes during a production cycle, each microfiltration system is purged with ozonated process water to remove particulate matter from the membranes. Purge wastewater is collected in a floor drainage system and discharged to the EP. Approximately 18,000 gallons of ozonated process water associated with microfilter purging is discharged each day during bottled water production (**Appendix G**).

Routine cleaning of each microfiltration system occurs at a maximum rate of approximately once per year. Each system has a dedicated Clean-In-Place (CIP) system consisting of three separate tanks: (1) a tank containing approximately 185 gallons of 2% phosphoric acid solution, (2) a tank containing approximately 185 gallons of 3% sodium hydroxide solution, and (3) a water tank. The first phase of cleaning involves circulation of the sodium hydroxide solution through the microfiltration system and back to the CIP tank. This is a fully automated closed loop process. Next, approximately 800 gallons of water is flushed through the microfiltration system to remove deposits. This water is collected in a floor drain and discharged to the EP. The second phase of cleaning involves circulation of phosphoric acid solution through the microfiltration system and back to the

[1] The frequency of regenerations is highly variable and dependent on various factors, including the volume of production within a given period.
[2] Due to regeneration event processing changes, the volume of wastewater deemed above drinking water limits changes from time to time and has varied considerably over the timeframe of the LRWQCB's and DTSC's Investigations of wastewater discharge practices at the site.

CIP tank. This is also a fully automated closed loop process. Next, several additional cycles of water flushes are circulated through the microfiltration system, with discharge of all water to the EP. The total rinse volume is typically approximately 3,000 to 4,000 gallons per cleaning event. This volume is discharged to the EP.

After microfiltration system cleaning has been completed, the CIP tanks are neutralized in situ and purged. The phosphoric acid solution and sodium hydroxide solution used for microfiltration system cleaning are mixed together for neutralization. When the combined solution has reached a pH between 6 and 9 SU, the solution is discharged to the EP through the floor drainage system. The pH is manually monitored using pH test strips or a handheld meter.

3.3.6 Product Water - Use and Wastewater Disposal

Production water that has passed through the microfiltration systems is delivered to a second set of stainless steel storage tanks prior to bottling. One 8,000-gallon tank is used at CGR North, while one 2,500-gallon tank is used at CGR South. Production water in these storage tanks is not treated in any way, and bottle filling piping does not require cleaning. Production water is conveyed from the storage tanks to one of six bottle fillers. At the end of bottled water production cycles, storage tanks are purged, and production water within the tanks (with the exception of water used for production line #2) is discharged to the EP to avoid water stagnation within the tanks. Production line #2 water is discharged to the FP. It is estimated that a total of approximately 1,440,000 gallons of purge water is discharged annually to the EP, while another approximately 590,000 gallons is discharged to the FP (**Appendix G**).

A routine cleaning and sanitization of certain production equipment surfaces, such as the fillers (i.e., food contact surfaces), is required under the Food and Drug Administration’s Good Manufacturing Practices guidelines. Two food-grade sanitizing foams, CD 470 phosphoric acid-based cleaner and Ecolab® Quorum Clear V ammonium-based disinfectant, are periodically applied to equipment surfaces via spray application and rinsed-off with domestic water. Additionally, a dilute solution (see Section 3.1.4) of chlorinated water is used to sanitize floors in the facility during a sanitation cycle. This rinse water is discharged to the EP through floor drains, with the exception of production line #2 rinse water which discharges to the FP. Cleaning solution discharge volumes are presented in **Appendix G**. Production line #2 purge water and sanitation solution discharges are the only sources of discharge to FP.

3.4 Discharge Ponds and Design Flow Calculations

As described previously, discharge from factory-generated wastewater and stormwater is proposed to be discharged to land for infiltration at two pond locations. The majority of the discharge water will be conveyed to the EP, while a smaller volume of discharge water will be conveyed to the FP. The EP, as previously described, is an unlined infiltration pond located approximately 2,300 feet east of CGR North and east of the spring discharge area. The groundwater gradient in this area is towards the northeast. The FP is a concrete lined pond south of CGR South. The FP contains a vertical screened pipe located within the pond to allow for overflow. When the water level exceeds the height of the screened pipe, pond water is discharged to ground surface directly south of the FP. CGR proposes to construct an unlined infiltration pond for overflow water from the FP. The installation and design details of the proposed infiltration pond at the FP are provided in Sheet S3 of the SWPPP (**Appendix E**).

Attachment L of the SWPPP (included with this Revised ROWD as **Appendix E**), includes engineering flow calculations for both the FP and EP provided by Triad Holmes Associates (THA). The flow calculations assume an average flow rate to both the EP and FP based on monitoring of flow rates and wastewater processes as discussed in previous sections. Additionally, the calculations assume flow input for a 25 year, 24-hour storm event to evaluate the appropriate sizing of the EP and FP. The FP and EP storage calculations assume a percolation rate based on site-specific percolation tests conducted at the Cabin Bar Ranch facility located directly north of the Site. Additionally, the FP outflow pond storage calculations were used to provide the appropriate sizing of the proposed infiltration pond. Results of the flow calculations indicated that the EP in its current condition will provide adequate storage and infiltration rates, and will not need to be enlarged from the current configuration.

3.4.1 Wastewater Discharge Criteria

In the past, no specific criteria were established for wastewater discharge to the FP or EP. However, as noted above, it is not expected that contaminants are present in wastewater going to these facilities that would significantly degrade groundwater in the area of the FP and EP. Most notably, the basis for wastewater generated at the facility is groundwater. Additionally, CGR monitors water quality, through either automatic or manual controls, in the domestic and production water circuits on a regular basis. Generally, monitoring parameters include pH and arsenic using either handheld devices or an onsite graphite furnace analyzer. Chlorine levels are manually monitored daily to maintain a chlorine level of between 0.2 and 0.8 ppm. CGR intends to monitor each regeneration event discharge wastewater in the future using a composite sampler. Furthermore, CGR intends to collect (on a quarterly basis) samples of wastewater streams at the outlet going to the EP and FP. The samples will be analyzed by an outside laboratory for the following constituents:

- CAM 17 Metals (total) using EPA Method 6010B and 7470A;
- VOCs using EPA Method 8260B;
- Methylene Blue Active Substances using SM 5540;
- General Minerals including major anions and cations using EPA Method 200.7, 300.0 and SM 2320B; and
- TDS using SM 2540C.

The analytical list proposed above will be reviewed over time and a modified list of analyses may be recommended by CGR to the LRWQCB depending on results. The composite samples will also be tested for pH in the field. Should the composite samples indicate excessive detections of contaminants of concern, CGR will promptly notify the LRWQCB An evaluation and discussion of discharge wastewater quality and groundwater quality is provided in Section 4.0 and Section 5.0.

4. SAMPLING RESULTS

The following sections describe the results of groundwater, discharge water, and pond water sampling at the Site. Because the former AP has been decommissioned (Section 2.1) and wastewater is no longer discharged to this area of the Site, sampling related to the former AP is not discussed in this section (but is the subject of further investigation at the direction of the LRWQCB). Groundwater quality in the vicinity of the former AP is discussed in the context of overall Site-wide groundwater quality in Section 5. Groundwater monitoring well and pond locations are shown in **Figure 2**. Monitoring well construction details are presented in **Table 1**.

4.1 Upgradient Groundwater Quality

Groundwater elevation data indicate that the groundwater flow direction at the Site is to the northeast (**Figure 3**). Natural groundwater quality in the vicinity of the Site is expected to decrease from west to east as good quality water originating in the Sierra Nevada flows from the alluvium and passes into the lacustrine (lake bed) sediments nearer to Owens Lake which cause the groundwater to significantly increase in mineral composition and degraded water quality. The Site, especially the eastern portion of the Site, sits atop the interface where the lacustrine deposits interfinger with the alluvium to the west. Additional investigation related to background water quality is currently under investigation directed by the LRWQCB.

Groundwater wells MW-01 and MW-06 were installed during Phase 2 Site Investigation generally upgradient of the FP and EP, respectively. In the absence of additional wells proposed to further evaluate background water quality (directed by the LRWQCB), these two wells are used to generally evaluate background water quality upgradient of the ponds. Analytical results for samples collected from wells MW-01 and MW-06 are included in **Table 2** through **Table 4**.

A list of constituents detected at MW-06, located upgradient of the EP, during the past four quarterly sampling events is summarized below.

- Metals (**Table 2**): dissolved and total antimony, dissolved and total arsenic, dissolved and total barium, dissolved and total copper, dissolved and total molybdenum, dissolved and total nickel, dissolved and total selenium, dissolved and total vanadium, and dissolved and total zinc; and

- Inorganic constituents (**Table 3**): alkalinity, ammonia, calcium, chloride, magnesium, MBAs, nitrate and nitrite, total nitrogen, total Kjeldahl nitrogen, phosphate, total phosphorous, sodium, sulfate, and TDS.

Total and fecal coliform (**Table 4**), VOCs and SVOCs were analyzed but not detected in the samples collected from MW-06. Groundwater analytical results from samples collected from MW-06 generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below MCLs and within the requirements of the Water Quality Control Plan for the Lahontan Region (Basin Plan; LRWQCB 2015b). Reported MW-06 sample total and dissolved arsenic concentrations over the last four sampling events have ranged from 12.4 to 18.3 µg/l and 10.7 to 17.1 µg/l, respectively.

A list of constituents detected at MW-01, located generally upgradient of the FP, during the past four quarterly sampling events is summarized below.

- Metals (**Table 2**): dissolved and total arsenic, dissolved and total barium, dissolved and total chromium, total cobalt, dissolved and total copper, total lead, dissolved and total molybdenum, dissolved and total nickel, dissolved and total vanadium, and dissolved and total zinc;

- Inorganic constituents (**Table 3**): alkalinity, calcium, chloride, magnesium, MBAs, nitrate and nitrite, total nitrogen, phosphate, phosphorous, sodium, sulfate, and TDS.

- Total coliform (**Table 4**)

VOCs and SVOCs were analyzed but not detected in the samples collected from MW-01.

Similar to MW-06, groundwater analytical results from samples collected from MW-01 generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. Total coliform was detected in samples collected from MW-01 on July 7, 2015 at a concentration of 2.0 ("J" flagged) most probable number (MPN) per 100 milliliters (mL), which exceeds the Basin Plan groundwater limit of 1.1 MPN/100 mL. However, total coliform has not been detected in samples from this well over the past three quarterly sampling events. Detected MW-01 sample total and dissolved arsenic (MCLs of 10 µg/l) concentrations over the last four sampling events have ranged from 13.8 to 17.6 µg/l and 12.1 to 13.6 µg/l, respectively.

Over the last four quarterly sampling events, the only reported primary MCL exceedances for samples collected from MW-01 and MW-06 were associated with analysis for total and dissolved arsenic (MCL of 10 µg/l). As discussed above, MW-01 and MW-06 are located upgradient of Site discharge locations, and therefore representative of regional background conditions which range from 10 to 23 µg/l. It bears particular note that background conditions for arsenic and TDS concentrations increase significantly as groundwater moves in an easterly direction toward Owens Dry Lake. A discussion of current groundwater arsenic concentrations relative to regional background conditions is presented in Section 5.2.

4.2 Groundwater Quality Downgradient of East Pond

Groundwater monitoring well MW-07 was installed downgradient of EP during Phase 2 Site Investigations (**Figure 3**). Well installation details are included in **Table 1**.

A list of constituents detected at MW-07 during the past four quarterly sampling events is summarized below.

- Metals (**Table 2**): dissolved and total antimony, dissolved and total arsenic, dissolved and total barium, dissolved and total chromium, dissolved and total cobalt, dissolved and total copper, total lead, dissolved and total molybdenum, dissolved and total nickel, dissolved and total vanadium, and dissolved and total zinc;

- Inorganic constituents (**Table 3**): alkalinity, calcium, chloride, magnesium, MBAs, total nitrogen, total Kjeldahl nitrogen, phosphate, total phosphorous, sodium, sulfate, and TDS; and

- Total coliform (**Table 4**).

VOCs and SVOCs were analyzed but not detected in the samples.

Groundwater analytical results from samples collected from MW-07 generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. Total coliform was detected in samples collected from MW-07 on September 15, 2015 at a concentration of 23 MPN per 100 mL, which exceeds the Basin Plan groundwater limit of 1.1 MPN/100 mL. However, total coliform has not been detected in samples from this well over the past two sampling events.

Over the last four quarterly sampling events, the only reported primary MCL exceedances were associated with samples analyzed for total and dissolved arsenic. Detected MW-07 sample total and dissolved arsenic (MCLs of 10 µg/l) concentrations over the last four sampling events have ranged from 14.9 to 48.3 µg/l and 14.1 to 47.9 µg/l, respectively. The TDS concentration in the past three quarterly monitoring events has ranged from 455 to 305 mg/L. These arsenic and TDS concentrations are generally consistent with concentrations observed in samples collected from well MW-06 (Section 4.1), located upgradient of East Pond and considered representative of Site background conditions. No other constituents were reported at concentrations exceeding established MCL concentrations in samples collected from MW-07.

Furthermore, as demonstrated by recent groundwater modeling requested by the LRWQCB, groundwater downgradient of the EP migrates northeast toward and ultimately discharges at Owens Dry Lake located approximately 1,000 feet east of the EP. Groundwater beneath Owens Dry Lake is significantly degraded with respect to arsenic, TDS and other compounds. Furthermore, there is no current or anticipated use of groundwater between the Site and Owens Dry Lake.

In summary, previous discharges to the EP have not significantly degraded groundwater. Anticipated Site discharges to groundwater will not affect the foreseeable future usage of groundwater in the area.

4.3 Groundwater Quality Downgradient of Fire Pond

Groundwater monitoring well MW-02 was installed cross- and down-gradient of the FP outlet (**Figure 3**). Well installation details are included in **Table 1**. Analytical results for samples collected from well MW-02 are included in **Table 2** through **Table 4**.

A list of constituents detected at MW-02 during the past four quarterly sampling events is summarized below.

- Metals (**Table 2**): total antimony, dissolved and total arsenic, dissolved and total barium, dissolved and total cobalt, dissolved and total molybdenum, dissolved and total nickel, dissolved and total vanadium, and dissolved and total zinc; and

- Inorganic constituents (**Table 3**): alkalinity, ammonia, calcium, chloride, magnesium, MBAs, phosphate, total phosphorous, sodium, sulfate, and TDS.

- Total coliform (**Table 4**).

VOCs and SVOCs were analyzed but not detected in the samples.

Groundwater analytical results from samples collected from MW-02 generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. Total coliform was detected in samples collected from MW-02 on September 14, 2015 at a concentration of 30 MPN per 100 mL, which exceeds the Basin Plan groundwater limit of 1.1 MPN/100 mL. However, total coliform has not been detected in samples from this well over the past two sampling events.

Over the last four quarterly sampling events, the only reported primary MCL exceedances were associated with samples analyzed for total and dissolved arsenic. Detected MW-02 sample total and dissolved arsenic (MCLs of 10 µg/l) concentrations over the last four sampling events ranged from 11.8 to 21.0 µg/l and 7.27 to 23.3 µg/l, respectively. These concentrations are generally consistent with concentrations observed in samples collected from well MW-01 (Section 4.1), located upgradient of Fire Pond and are considered representative of Site background conditions. No other reported groundwater concentrations exceeded established primary MCL concentrations in samples collected from MW-02.

Furthermore, as demonstrated by recent groundwater modeling requested by the LRWQCB, groundwater downgradient of the FP migrates northeast toward and ultimately discharges at Owens Lake located approximately 1,000 feet east of the EP. Groundwater beneath Owens Lake is significantly degraded with respect to arsenic, TDS and other compounds. Additionally, there is no current or anticipated use of groundwater between the Site and Owens Lake.

In summary, previous discharges to the FP have not significantly degraded groundwater. Anticipated Site discharges to groundwater will not affect the foreseeable future usage of groundwater in the area.

4.4 East Pond Wastewater Sampling

The EP is an unlined pond used for discharge of process, industrial, and domestic wastewater primarily from CGR North. A complete description of discharges to EP is presented in Section 3 and summarized in **Appendix G**. Samples have been collected from the EP and discharges to the EP during the following periods to characterize the wastewater:

- Phase 1 Site investigation sampling (August through December, 2014);

- Two 24-hour composite samples of discharge to East Pond (February 2016); and
- Cooling tower discharge sampling (March 2015).

Sample results are presented in the following sections.

4.4.1 Waste Stream Sampling

During the Phase 1 Site investigation (August through December, 2014), grab samples were collected from the following locations:

- CGR North wastewater during production;
- CGR North wastewater during sanitation;
- Discharge into EP during production; and
- EP standing water.

Phase 1 Site investigation wastewater sample analytical results are presented in **Table 5** through **Table 8**. The following constituents were detected in at least one Phase 1 Site investigation sample:

- Metals (**Table 5**): Total and dissolved antimony, total and dissolved arsenic, total and dissolved barium, total chromium, total and dissolved copper, total and dissolved molybdenum, dissolved vanadium, and total and dissolved zinc.

- Inorganic Constituents (**Table 6**): Alkalinity, biochemical oxygen demand, calcium carbonate, calcium, chemical oxygen demand, chloride, dissolved oxygen, magnesium, nitrate, total nitrogen, total Kjeldahl nitrogen, orthophosphate, total phosphorus, sodium, sulfate, surfactants, TDS, and total organic halides.

- Total coliform (**Table 7**)

- VOCs and SVOCs (**Table 8**): 2-butanone (MEK)

Sample analytical results generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. Average total organic halide concentrations of 12 µg/L and 14 µg/L were reported in the samples from CGR North wastewater during sanitation and East Pond standing water, respectively (**Table 6**). However, analytical results of VOC sampling by EPA Methods 524.2 and 624 indicate that chlorinated VOCs were not present above the reporting limit in either of these samples. The only reported MCL exceedances were associated with total and dissolved arsenic in samples collected from CGR North wastewater during sanitation, and from the EP point of discharge during production. A total arsenic concentration of 17 µg/L was reported for both of these samples, while reported dissolved arsenic concentrations ranged from 12 to 18 µg/L (**Table 5**). These concentrations are generally consistent with concentrations observed in samples collected from well MW-06, located upgradient of EP and considered representative of Site background conditions (Section 4.2, **Table 2**).

4.4.2 24-Hour Composite Sampling

Two 24-hour composite samples were collected from the discharge to the EP on February 6 and 18, 2016. The February 6th composite sample was collected during routine sanitation and production discharges, while the February 18th composite sample collection was started during an arsenic filter regeneration event, immediately after process water was discharged to EP.

These composite samples were collected using an automatic water sampler from Teledyne Technologies, Inc. The automatic water sampler was installed at the distribution box upstream of the EP (**Appendix F**), and programmed to collect a total of 10 liters of water over 24 hours, with a sampling frequency of 15 minutes. The sampler suction tubing was lowered into the distribution box with a perforated polyvinyl chloride (PVC) pipe at the end to collect water from multiple depths. Suction tubing was automatically purged between each sample collection. The composite samples were collected in bottles supplied by the laboratory. The samples were shipped in coolers with wet ice to Eurofins CalScience Environmental Laboratories in Garden Grove, Califorina. Composite sample analytical results are presented in **Table 9**. The composite sample laboratory reports are provided in **Appendix J**. The following constituents were detected in at least one composite sample:

- Metals: Total and dissolved antimony, total and dissolved arsenic, total and dissolved barium, total and dissolved copper, total and dissolved molybdenum, total and dissolved vanadium, and total and dissolved zinc.

- Inorganic Constituents: Alkalinity, calcium carbonate, TDS, total Kjeldahl nitrogen, total phosphorus, total phosphate, MBAs, total nitrogen, calcium, magnesium, sodium, and sulfate.

VOCs and SVOCs were not detected in samples. Sample analytical results generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. The only reported MCL exceedance was associated with total and dissolved arsenic in the 24-hour composite sample collected from discharge to the East Pond on February 18, 2016. Total and dissolved arsenic concentrations of 16.7 µg/L and 16.2 µg/L, respectively, were reported in these samples (**Table 9**). These reported total and dissolved arsenic concentrations are consistent with concentrations observed in samples collected from well MW-06, located upgradient of EP and considered representative of Site background conditions (Section 4.2, **Table 2**).

4.4.3 Cooling Tower Discharge Sampling

A sample was collected from the discharge of Cooling Tower #10 (**Appendix GF**) on March 19, 2015. Cooling tower effluent is discharged to the EP, as described in Section 3.2. Cooling tower discharge sample analytical results are presented in **Table 5** through **Table 8**. The following constituents were detected in the cooling tower discharge sample:

- Metals (**Table 5**): Total and dissolved arsenic, total and dissolved barium, total and dissolved copper, total and dissolved molybdenum, and total and dissolved vanadium.

- Inorganic Constituents (**Table 6**): Alkalinity, calcium, chloride, dissolved oxygen, magnesium, nitrate, total nitrogen, orthophosphate, sodium, sulfate, and TDS.

- Total coliform (**Table 7**)

VOCs and SVOCs were not detected in samples. Sample analytical results generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. The only reported MCL exceedance was associated with total and dissolved arsenic. Total and dissolved arsenic concentrations of 36 µg/L and 32 µg/L, respectively, were reported in these samples (**Table 5**). These reported total and dissolved arsenic concentrations are slightly higher than concentrations observed in samples collected from well MW-06, located upgradient of EP; however the concentrations are considered representative of Site background conditions (Section 4.2, **Table 2**).

4.5 Fire Pond

The FP is a concrete lined pond used for specific discharges from CGR South, as described in Section 3. An overflow drain pipe from the FP allows pond water to discharges to land surface and infiltrate approximately 100 feet to the south of the FP. This land surface is owned by CGR. Samples were collected from the FP and discharges to the FP during the following periods:

- Phase 1 Site investigation sampling (September through December, 2014); and
- Two 24-hour composite sampling of discharge to FP (February and April 2016).

Sample results are presented in the following sections.

4.5.1 Waste Stream Sampling

During the Phase 1 Site investigation, samples were collected from the following locations in August through December, 2014:

- CGR South wastewater during sanitation;
- Fire Pond standing water; and
- Fire Pond overflow.

Phase 1 Site investigation wastewater sample analytical results are presented in **Table 5** through **Table 8**. Sample results are considered representative of water quality during routine wastewater discharge.

The following constituents were detected in at least one Phase 1 Site investigation sample:

- Metals (**Table 5**): Total antimony, total and dissolved arsenic, total barium, total chromium, total copper, total vanadium, and total zinc.

- Inorganic Constituents (**Table 6**): Alkalinity, calcium carbonate, calcium, chemical oxygen demand, chloride, dissolved oxygen, magnesium, nitrate, total nitrogen, total Kjeldahl nitrogen, orthophosphate, total phosphorus, sodium, sulfate, surfactants, TDS, and total organic halides.

- Total coliform (**Table 7**)

- VOCs and SVOCs (**Table 8**): 2-butanone (MEK)

Sample analytical results generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. An average total organic halide concentration of 14 µg/L was reported in the sample from CGR South wastewater during sanitation (**Table 6**); however, analytical results of VOC sampling by EPA Methods 524.2 and 624 indicated that chlorinated VOCs were not present above the reporting limit. FP standing water and overflow sample pH values of 9.2 and 9.9 SU (**Table 6**), respectively, were reported; however, more recent 24-hour composite sample results (Section 4.5.2, **Table 9**) indicate that discharge to the FP has a neutral pH ranging from 6.5 to 7.05 SU. Reported sample concentrations were below MCLs in all Phase 1 Site investigation samples.

4.5.2 24-Hour Composite Sampling

Two 24-hour composite samples were also collected from the discharge to the FP on February 18 and April 7, 2016. Both composite samples were collected during routine sanitation and production discharges. Composite samples were collected using an automatic water sampler from Teledyne Technologies, Inc. The automatic water sampler was installed at the splitter box upstream of the FP (**Appendix F**), and programmed to collect a total of 10 liters of water over 24 hours, with a sampling frequency of 15 minutes. The sampler suction tubing was lowered into the splitter box with a perforated PVC pipe at the end to collect water from multiple depths. Suction tubing was automatically purged between each sample collection.

Composite sample analytical results are presented in **Table 9**. Composite sample laboratory reports are provided in **Appendix J**. The following constituents were detected in at least one composite sample:

- Metals: Total and dissolved antimony, total and dissolved arsenic, total and dissolved barium, total and dissolved copper, total and dissolved molybdenum, total and dissolved vanadium, and total and dissolved zinc.

- Inorganic Constituents: Alkalinity, calcium carbonate, TDS, total Kjeldahl nitrogen, total phosphorus, total phosphate, methyl blue active substances, total nitrogen, calcium, magnesium, sodium, and sulfate.

Sample concentrations were compared to MCLs and the Basin Plan to evaluate the potential for discharges to degrade groundwater quality. Analytical results for wastewater samples collected from CGR South and FP samples indicate that no constituents were present at concentrations exceeding MCL concentrations.

5. WATER QUALITY DISCUSSION

Overall Site groundwater quality and the potential degradation of groundwater quality as a result of Site activities are discussed in the following sections. A comprehensive summary of groundwater quality at the Site is presented in the Phase 1 Report (Geosyntec 2015b) and Phase 2 Report (Geosyntec 2015c). Current Site activities and their potential impact on groundwater quality are discussed in Section 5.1. Historical activities related to the Arsenic Pond are discussed in Section 5.2.

5.1 Current Site Activities

As discussed in Sections 4.4 and 4.5, samples were collected from current Site discharge points and pond water to evaluate the composition of current Site discharges. Discharge point sampling activities included the collection of two 24-hour composite samples from the discharge points to the EP and FP, as requested by the LRWQCB, to fully and accurately all waste streams generated at the Site. Results of discharge and pond water samples indicate the presence of low concentrations of dissolved metals, total metals, TDS, and other inorganic and organic constituents. Sample concentrations were compared to MCLs and the Basin Plan to evaluate the potential for discharge water and pond water to degrade groundwater quality. The only constituents detected above MCL concentrations in these samples were total and dissolved arsenic, with detected concentrations ranging from 1.4 to 36 µg/L and 2.6 to 32 µg/L, respectively. These detections are consistent with the current profile of discharges to the EP and FP, which consists of only ozonated process water and much smaller discharges from various non-routine processes (Section 3.3, **Appendix G**).

Site discharge and pond water sample analytical results were compared to Site groundwater sample data to evaluate the potential impact of current Site discharges on groundwater quality. As discussed in Sections 4.2 and 4.3, groundwater analytical results from samples collected from wells downgradient of the EP (MW-07) and FP (MW-02) generally indicate low detections of dissolved metals, total metals, TDS, and other inorganic and organic constituents at concentrations below established MCLs and within the requirements of the Basin Plan. Over the last four quarterly sampling events, the only reported MCL exceedances in samples collected from these wells were associated with total and dissolved arsenic (**Table 2**) and TDS (**Table 5**).

Sampling data indicate that groundwater quality is generally consistent upgradient and downgradient of the EP and FP. Sampling data therefore support the conclusion that groundwater is not being significantly degraded by discharges to the EP and FP with regard to background groundwater quality. Total arsenic concentrations in samples collected from upgradient wells MW-01 and MW-06 were reported above the MCL in all four previous quarters (**Table 2**). The total arsenic concentration of 18.3 µg/L reported in samples from upgradient well MW-06 in July 2015 is higher than the total arsenic concentration in samples collected from the downgradient well MW-07 the past three quarters, indicating that arsenic detections at downgradient wells are associated with background conditions. Similarly, reported TDS concentrations in samples from collected from upgradient well MW-06 are generally consistent with concentrations reported in samples from downgradient well MW-07 (**Table 3**), suggesting that MW-07 TDS detections are also associated with background conditions.

The observation of elevated background arsenic concentrations is consistent with sampling completed by others, and is believed to be associated with observed fine grained lacustrine deposits. Specifically, shallow groundwater sampling beneath nearby Owens Lake indicated arsenic concentrations ranging from approximately 50 to 150 mg/L (Levy et al, 1999). Overall, sampling data indicate that detections of TDS, arsenic, and other constituents at downgradient wells are generally consistent with background concentrations, and do not indicate significant groundwater degradation resulting from pond discharges.

As noted previously, recent groundwater modeling requested by the LRWQCB demonstrates that groundwater downgradient of the Site migrates toward and ultimately discharges at Owens Dry Lake located approximately 1,000 feet east of the EP. Groundwater beneath Owens Dry Lake is significantly degraded with respect to arsenic, TDS and other compounds. Furthermore, there is no current or anticipated use of groundwater between the Site and Owens Lake.

In summary, previous discharges to the EP and FP have not significantly degraded groundwater. Anticipated Site discharges to groundwater will not affect the foreseeable future usage of groundwater in the area.

5.2 Arsenic Pond - Historical Discharges

As discussed in Section 2.1, the AP historically received wastewater generated during arsenic removal media regeneration events. The AP was located approximately 1,100 feet west of EP (between EP and CGR North), and was constructed with a high density polyethylene (HDPE) liner. The final wastewater discharge to the AP occurred during a media regeneration event on October 17, 2014, at which time the DTSC was present. As discussed in Section 3.3.4, arsenic regeneration wastewater is currently discharged to a vacuum truck and disposed of offsite. AP was decommissioned on May 11 through June 5, 2015, as detailed in the *Interim Remedial Measures Final Report* (**Appendix A**).

Several monitoring wells are located in the vicinity of the AP, including one upgradient well (MW-03), two cross-gradient wells (MW-08 and MW-09), and two downgradient wells (MW-04 and MW-05; **Figure 3**). Sampling data from the last four quarterly events indicate that total and dissolved arsenic concentrations at wells MW-08 and MW-09 are generally consistent with concentrations at upgradient well MW-03. Reported total and dissolved arsenic concentrations at downgradient wells MW-04 and MW-05 are significantly higher than reported concentrations at well MW-03 indicating releases from the AP did impact groundwater; however, analytical data also indicate that arsenic concentrations at downgradient wells have been consistently decreasing over the past four quarters (**Table 3**). Notwithstanding the foregoing, however, the fact that the AP has been decommissioned and removed, and no longer serves as a point of discharge, there is no basis for further releases of arsenic above background levels to occur at the Site.

Additional groundwater investigation has been proposed downgradient of MW-05 and will be conducted under LRWQCB oversight to further delineate the extent of dissolved and total arsenic in groundwater at concentrations above background. Proposed groundwater investigation activities are outlined in the *Additional Site Investigation Work Plan* (Geosyntec 2015d) and the *Phase 3 - Additional Site Investigation Work Plan Addendum* (Geosyntec 2016).

5.3 LADWP – Revised Waste Discharge Requirements

On October 15, 2001, the Los Angeles Department of Water and Power (LADWP) submitted a Report of Waste Discharge (RWD) for the LADWP Southern Zones Dust Control Project (LADWP Project) of the Owens Lake Dust Mitigation Program. The Lahontan Water Board adopted Board Order No. R6V-2002-0011 establishing Waste Discharge Requirements for these discharges (WDID No. 6B140009003). The dust mitigation measures implemented by LADWP on Owens Dry Lake were established in order to reduce air particulate emissions in an effort to comply with federal and state requirements.

The LADWP Project consists of a water delivery and recycling system that supplies irrigation water to the lakebed. The irrigation areas are managed to create areas of wet playa surface and areas of various types of vegetation. Certain facilities have been constructed in order to allow for irrigated areas and the irrigation of water collection and storage ponds (Facility). The Facility is divided into components referred to as "Shallow

Flooding", "Habitat Shallow Flooding", "Managed Vegetation", "Operational Ponds", and the "Settling Basin".

The Facility covers an area of 22.31 square miles and is located on Owens Dry Lake, which includes property owned by CGR. LADWP has approached CGR, and CGR is presently working towards granting access to these certain lands that will require dust mitigation.

Most notably, that Board Order No. R6V-2002-0011 and WDID No. 6B140009003 set the LADWP's Facility water quality limitations for the concentration of TDS at a range of 120,000 – 450,000 mg/l depending on the project area and arsenic at 165,000 µg/L. T hese levels far exceed CGR's historical, current, and intended discharge practices.

6. CONCLUSIONS

The following are the conclusions from this ROWD:

- Groundwater at the Site occurs in shallow alluvium and lacustrine deposits which are interfingered. Background water quality in the site vicinity decreases from the west (more alluvium) toward the east (more lacustrine deposits). For example, background arsenic concentrations are approximately 15-25 ug/L. Groundwater beneath Owens Dry Lake contains concentrations of arsenic approximately 3 orders of magnitude or higher.

- Salt concentrations in Owens Lake shallow groundwater average about four times the levels found in seawater.

- Historic discharges of arsenic media regeneration have ceased and the all wastewater within the AP has been removed. Investigation of groundwater near the former AP is ongoing.

- Facility discharges to the EP and FP have not significantly degraded groundwater. Any compounds discharged to groundwater will not affect the foreseeable future usage of groundwater in the area.

- CGR is currently in discussions with LADWP to evaluate discharge of site wastewater and stormwater for use as dust control on Owens Lake. Preliminarily, the option appears to provide advantages to both parties, and would have a significant benefit to the public. CGR is pursuing this option for disposal with LADWP. However, as of this date, no firm details are available and the option cannot be firmly proposed as part of this ROWD. It is hoped that this option could be implemented by the end of 2016.

- In the absence of a firm plan from LADWP, CGR is proposing to come into compliance with the Waste Discharge Requirements (WDR) discharge permit and all other applicable regulations as required by the LRWQCB for the wastewater discharges to the EP and FP as described in previous sections.

- Additionally, as indicated in the original ROWD, CGR intends to co-mingle stormwater runoff with the wastewater discharges covered in this ROWD. The proposed discharge location for the majority of stormwater from the impervious areas of the Site will be to the EP.

- An unlined infiltration pond is proposed to be constructed to accept and infiltrate process wastewater that overflows from the FP. Pond design details and design flow calculations for the FP infiltration pond and the EP were provided by THA in the attached SWPPP. Flow design calculations for the EP and FP were based on average process wastewater flow rates and based on a 25 year 24-hour rainfall event. Flow design calculations indicate that the EP is appropriately sized to accept and infiltrate process and stormwater flow without overtopping.

- Composite wastewater/stormwater samples will be collected on a regular basis and analyzed for constituents of concern at the EP and FP discharge locations to demonstrate compliance with discharge limitations.

7. REFERENCES

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TABLES

Table 1
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	9/14/2015	22.71	3643.80	3621.09	18 - 33	33	36.3011461	-118.0207444
MW-02	9/14/2015	18.43	3638.21	3619.78	10 - 25	25	36.3018132	-118.0199017
MW-03	9/15/2015	15.02	3618.26	3603.24	5 - 20	20	36.3057165	-118.0186995
MW-04	9/15/2015	11.94	3615.22	3603.28	5 - 20	20	36.3061799	-118.0177333
MW-05	9/15/2015	8.47	3608.33	3599.86	5 - 20	20	36.3066296	-118.0165260
MW-06	9/15/2015	13.04	3615.33	3602.29	8 - 23	23	36.3052343	-118.0149476
MW-07	9/15/2015	7.98	3610.16	3602.18	5 - 20	20	36.3055453	-118.0142003
MW-08	9/14/2015	13.95	3617.28	3603.33	5 - 20	20	36.3063264	-118.0185088
MW-09	9/15/2015	17.34	3620.04	3602.70	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 2
Groundwater Sample Results - Metals
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Antimony (dissolved)	Antimony (total)	Arsenic (dissolved)	Arsenic (total)	Barium (dissolved)	Barium (total)	Chromium (dissolved)	Chromium (total)	Cobalt (dissolved)	Cobalt (total)	Copper (dissolved)	Copper (total)	Lead (dissolved)	Lead (total)	Molybdenum (dissolved)	Molybdenum (total)	Nickel (Dissolved)	Nickel (total)	Selenium (dissolved)	Selenium (total)	Silver (dissolved)	Silver (total)	Vanadium (dissolved)	Vanadium (total)	Zinc (dissolved)	Zinc (total)
			µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l		µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
MW-01	07/07/15	MW-01-070715	< 15.0	< 15.0	13.6	17.6	22.8	26.8	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	11	11.9	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	09/14/15	MW-01-091415	< 15.0	< 15.0	< 10.0	14.7	25.8	26.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	10.9
	12/09/15	MW-01-120915	< 1.00	< 1.00	12.6	15.9	25.8	38.2	< 1.00	< 1.00	< 1.00	< 1.00	2.67	2.38	< 1.00	< 1.00	7.21	8.13	2.43 J	1.19 J	< 1.00	< 1.00	< 1.00	< 1.00	4.54	9.85	18.3	54.3
	02/16/16	MW-01-021616	< 1.00	< 1.00	12.1	13.8	25.9	56.7	1.14	1.58	< 1.00	1.1	< 1.10	< 5.17	< 1.00	1.11	7.11	7.7	< 1.00	1.8	< 1.00	< 1.00	< 1.00	< 1.00	6.82	15.3	< 5.00	6.91
MW-02	07/07/15	MW-02-070715	< 15.0	< 15.0	23.3	21	19.6	20.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	09/14/15	MW-02-091415	< 15.0	< 15.0	< 10.0	< 10.0	19.6	19.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	15.9
	12/09/15	MW-02-120915	< 1.00	< 1.00	12.6	11.8	34.3	35.4	< 1.00	< 1.00	1.22	1.36	< 1.00	< 1.00	< 1.00	< 1.00	1.86	2.04	1.07	1.3	< 1.00	< 1.00	< 1.00	< 1.00	10	9.28	< 5.00	9.01
	02/16/16	MW-02-021616	< 1.00	1.42	7.27	16.7	34	42.2	< 1.00	< 1.00	< 1.00	1.8	< 1.00	< 1.88	< 1.00	< 1.00	2.15	2.55	1.76	1.9	< 1.00	< 1.00	< 1.00	< 1.00	6.28	22.1	6.25	24.7
MW-03	07/07/15	MW-03-070715	< 15.0	< 15.0	20.5	20.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	09/15/15	MW-03-091515	< 15.0	< 15.0	< 10.0	12.1	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	12/09/15	MW-03-120815	< 1.00	< 1.00	7.11	8.55	8.94	10	1.09	1.24	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	4.19	4.48	1.03	1.58	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	7.62	8.55
	02/16/16	MW-03-021616	< 1.00	1.42	4.81	5.14	6.88	11.8	< 1.00	1.22	< 1.00	< 1.00	< 1.00	< 1.97	< 1.00	< 1.00	2.49	3.07	< 1.00	1.38	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	3.63	11.1	10.7
MW-04	07/07/15	MW-04-070615	24.7 J	16.0 J	742	821	10.3 J	24.4	< 10.0	< 10.0	< 10.0	< 10.0	48.2	43.3	< 10.0	< 10.0	430	476	< 10.0	< 10.0	< 15.0	< 15.0	6.80 J	< 5.00 J	217	249	< 10.0	24.9 J
	07/07/15	MW-04-070615-DUP	20.3 J	< 15.0 J	757	816	< 10.0 J	23.8	< 10.0	< 10.0	< 10.0	< 10.0	36.1	41.8	< 10.0	< 10.0	439	471	< 10.0	< 10.0	< 15.0	< 15.0	7.91 J	< 5.00 J	222	248	< 10.0	13.4 J
	09/15/15	MW-04-091515	19.3	16.1	685	691	< 10.0	10.5	< 10.0	< 10.0	< 10.0	< 10.0	15.8	16.4	< 10.0	< 10.0	389	364	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	189	193	< 10.0	37.3 J
	09/15/15	MW-04-091515-DUP	20.5	15.8	630	670	< 10.0	10.6	< 10.0	< 10.0	< 10.0	< 10.0	14.2	15.3	< 10.0	< 10.0	389	366	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	191	189	< 10.0	< 10.0 J
	12/08/15	MW-04-120815	13.3	8.5	636	586	45.5 J	30.4 J	< 5.00	< 5.00	< 5.00	< 5.00	54.4 J	19.6 J	22.8 J	14.9 J	446 J	303 J	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	194	143	34.6 J	< 25.0 J
	12/08/15	MW-04-120815-DUP	12.2	8.29	609	582	41.4	31.7	< 5.00	< 5.00	< 5.00	< 5.00	50.2 J	19.5 J	21.3 J	14.6 J	420	310	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	180	146	32.7 J	< 25.0 J
	02/17/16	MW-04-021716	4.18	4.53	153	154	18.4	24	4.08 J	1.15 J	< 1.00	< 1.00	< 3.39	10.2	< 1.00	2.31	106	104	4.77 J	1.36 J	< 1.00	< 1.00	< 1.00	< 1.00	39.2	49.6	11.1 J	17.8 J
	02/17/16	MW-04-021716-DUP	4.18	4.43	159	152	18.9	24.5	< 1.00 J	1.21	< 1.00	< 1.00	< 2.98	10.2	< 1.00	2.28	109	105	< 1.00 J	1.35	< 1.00	< 1.00	< 1.00	< 1.00	47.2	49.6	< 5.00 J	< 5.00 J
MW-05	07/07/15	MW-05-070715	< 15.0	< 15.0	707	730	14.3	17.2	< 10.0	< 10.0	< 10.0	< 10.0	50.5	47.3	< 10.0	< 10.0	437	448	< 10.0	< 10.0	< 15.0	< 15.0	5.59 J	< 5.00 J	197	208	10.3	37.5
	09/15/15	MW-05-091515	< 15.0	< 15.0	224	205	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	204	190	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	28.1	28.4	< 10.0	89.3
	12/08/15	MW-05-120815	1.21	1.27	130	141	8.45	9.01	< 1.00	< 1.00	< 1.00	< 1.00	1.26	1.42	< 1.00	< 1.00	108	121	1.37	1.63	< 1.00	< 1.00	< 1.00	< 1.00	15.3	14.8	< 5.00	7.32
	02/17/16	MW-05-021716	1.67	1.62	99.8	99.8	8.89	10.5	< 1.00	< 1.00	< 1.00	< 1.00	< 2.80 J	1.67 J	< 1.00	< 1.00	98.7	101	3.00 J	1.75 J	< 1.00	< 1.00	< 1.00	< 1.00	11.6	10.9	13.7 J	8.12 J
MW-06	07/07/15	MW-06-070615	< 15.0	< 15.0	17.1	18.3	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	10.4	10.4	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	09/15/15	MW-06-091515	< 15.0	< 15.0	10.7	18	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	16.3	15.4	< 5.00	< 5.00	< 10.0	< 10.0	13.4	31.6
	12/08/15	MW-06-120815	< 1.00	< 1.00	11.6	12.4	4.75	4.63	< 1.00	< 1.00	< 1.00	< 1.00	1.86 J	1.33 J	< 1.00	< 1.00	5.58	5.13	1.42	1.08	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.51	6.51 J	< 5.00 J
	02/16/16	MW-06-021616	1.69	2.75	11.3	12.4	2.17	4.98	< 1.00	< 1.00	< 1.00	< 1.00	< 4.52	< 4.61	< 1.00	< 1.00	4.79	4.85	1.82 J	1.18 J	< 1.00	< 1.00	< 1.00	< 1.00	4.64	5.43	6.37	5.73
MW-07	07/06/15	MW-07-070615	< 15.0	< 15.0	47.9	48.3	< 10.0	14.2	< 10.0	< 10.0	< 10.0	< 10.0	37.2 J	16.2 J	< 10.0	< 10.0	29.3	30.1	< 10.0	10.5 J+	< 15.0	< 15.0	< 5.00	< 5.00	19.7	21.8 J+	< 10.0	22.6 J+
	09/15/15	MW-07-091515	< 15.0	< 15.0	< 10.0	14.9	< 10.0	22.7	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	13.4	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	25.3
	12/08/15	MW-07-120815	1.33	1.1	14.1	16.2	9.69	20.5 J	1.65 J	< 1.00 J	1.16 J	< 1.00 J	4.67	4.37	< 1.00	1.4	10.5	9.93	4.30 J	3.11 J	< 1.00	< 1.00	< 1.00	< 1.00	3.94 J	2.69 J	30.3 J	19.7 J
	02/16/16	MW-07-021616	1.9	2.76	17.6	17.6	3.51	52.3	< 1.00	4.12	< 1.00	2.69	< 3.10	10.2 J+	< 1.00	2.39	9.01	7.96	3.51	5.91	< 1.00	< 1.00	< 1.00	< 1.00	2.27	15.8	< 5.00	23.8
MW-08	07/07/15	MW-08-070715	< 15.0	< 15.0	< 10.0	11.2	22.6	26.9	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	13.6 J	< 10.0 J
	09/14/15	MW-08-091415	< 15.0	< 15.0	14	15.8	28.6	29.6	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	12/08/15	MW-08-120815	< 1.00	< 1.00	7.04	8.54	31.2	31.4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	6.32	6.39	1.21 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	9.58	7.58
	02/17/16	MW-08-021716	< 1.00	< 1.00	5.14	4.87	27.2	31.1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.55	< 1.00	< 1.00	< 1.00	5.19	5.42	2.15 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.49	17.2 J	12.6 J
MW-09	07/07/15	MW-09-070715	< 15.0	< 15.0	47.2	50.6	44.2	43.2	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	77.4	87.8	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	< 10.0	< 10.0
	09/15/15	MW-09-091515	< 15.0	< 15.0	49	50.9	50.5	49.4	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	97.1	91.3	< 10.0	< 10.0	< 15.0	< 15.0	< 5.00	< 5.00	< 10.0	< 10.0	16.8	18.1
	12/09/15	MW-09-120915	2.81	2.44	68.4	73.4	10.1	9.05	< 1.00	< 1.00	< 1.00	< 1.00	9.03	7.86	< 1.00	< 1.00	12.6	11.5	1.73 J	< 1.00 J	< 1.00	< 1.00	< 1.00	< 1.00	16.8	21.7	12.2	13.9
	02/17/16	MW-09-021716	< 1.00	< 1.00	24.4	24.8	5.56	8.36	1.19 J	< 1.00 J	< 1.00	< 1.00	< 3.04	7.66	< 1.00	< 1.00	7.46	7.57	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	2.31	4	< 5.00	9.46
California Maximum Contaminant Level			6	6	10	10	1,000	1,000	50	50	nl	nl	1,300	1,300	15	15	nl	nl		100	50	50	nl	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.

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

Table 3

Groundwater Sample Results - 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	Total Dissolved Solids mg/l
MW-01	07/07/15	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
	09/14/15	MW-01-091415	123	< 0.10	30.2	2.6	2.87	< 0.10	0.29	< 0.50	< 0.500	0.42	0.14	17.6	18	130
	12/09/15	MW-01-120915	79	< 0.10	21.6	2.2	2.22	< 0.10	0.41 J+	< 0.50	< 0.500	0.67	0.22	15.2	14	105
	02/16/16	MW-01-021616	77	< 0.10	25.1	2.1	2.99	0.16	0.4	< 0.50	< 0.500	0.47	0.15	15.9	16	175
MW-02	07/07/15	MW-02-070715	72	< 0.10	23.1	2	2.54	< 0.10	< 0.10	< 0.50	< 0.500	< 0.31	< 0.10	9.42	12	160
	09/14/15	MW-02-091415	64	0.11	21.1	1.5	1.96	< 0.10	< 0.10	< 0.50	< 0.500	0.37	0.12	8.68	9.2	125
	12/09/15	MW-02-120915	78	< 0.10	28.9	2.9	2.76	< 0.10	< 0.13	< 0.50	< 0.500	0.43	0.14	10.3	25	145
	02/16/16	MW-02-021616	76	< 0.10	30	2.8	2.89	0.24	< 0.10	< 0.50	< 0.500	< 0.31	< 0.10	10	23	162
MW-03	07/07/15	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
	09/15/15	MW-03-091515	120	1.1	21.9	5.9	3.22	< 0.10	< 0.10	1.5 J+	1.50 J+	1.1	0.35	32.5	8	190
	12/09/15	MW-03-120815	92	1	56.2	6.5	5.62	0.14	0.62 J+	1.9	1.3	0.76	0.25	40.3	140	320
	02/16/16	MW-03-021616	100	0.87	30.8	6.4	6.46	< 0.10 J	< 0.10	1.9	1.8	0.54	0.18	78.8	39	235
MW-04	07/07/15	MW-04-070615	916 J	0.11 J	7.4	20 J	1.1	< 0.10 J	0.23 J	1.6 J	1.40 J	4.8 J	1.6 J	934	880 J	2,340 J
	07/07/15	MW-04-070615-DUP	916 J	0.11 J	7.34	16 J	1.1	< 0.10 J	0.23 J	1.6 J	1.40 J	4.9 J	1.6 J	909	890 J	2,360 J
	09/15/15	MW-04-091515	841	< 0.10 J	2.33	8.5	0.295	< 0.10	0.38	1.1 J+	0.700 J+	7.2	2.4	823	840	1,780
	09/15/15	MW-04-091515-DUP	841	0.11 J	2.27	8.6	0.29	< 0.10	0.38	1.4 J+	0.980 J+	7.2	2.4	798	840	2,040
	12/08/15	MW-04-120815	534	0.17	5.26	< 10	0.41	0.1	< 0.10	2	2	4.6	1.5	672	610	1,720
	12/08/15	MW-04-120815-DUP	528	0.22	5.17	< 10	0.388	0.1	< 0.10	2.5	2.5	4.7	1.5	663	610	1,640
	02/17/16	MW-04-021716	308	< 0.11	12.7	14	0.682	0.10 J-	0.27	0.91	0.63	1.2	0.38	272	250	800
	02/17/16	MW-04-021716-DUP	306	< 0.11	12.3	14	0.676	0.12 J-	0.26	0.96	0.7	1.2	0.41	264	240	770
MW-05	07/07/15	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
	09/15/15	MW-05-091515	251	0.34	24.9	15	2.3	< 0.10	< 0.10	1.1 J+	1.10 J+	1.8	0.59	267	410	830
	12/08/15	MW-05-120815	164	0.22	47.9	72	4.16	0.13	< 0.22	< 0.50	< 0.500	0.62	0.2	158	210	535
	02/17/16	MW-05-021716	162	0.22 J+	46.4	71	3.8	0.15 J-	< 0.10	0.67	0.63	0.54	0.18	142	180	565
MW-06	07/07/15	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
	09/15/15	MW-06-091515	153	0.11	53	290	7.14	< 0.10	< 0.10	0.70 J+	0.700 J+	0.84	0.27	185	35	605
	12/08/15	MW-06-120815	139	< 0.10	58.3	330	7.4	< 0.10	0.15	0.97	0.7	1.7	0.54	249	33	750
	02/16/16	MW-06-021616	121	< 0.10	34.8	89 J+	3.92	0.25	0.12	< 0.50	< 0.500	1.7	0.54	71.9	33	355
MW-07	07/06/15	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
	09/15/15	MW-07-091515	190	< 0.10	14.5	37	3.91	< 0.10	< 0.10	0.70 J+	0.700 J+	1.6	0.51	113	45	455
	12/08/15	MW-07-120815	160	< 0.10	10.8	28	1.75	0.3	< 0.10	0.84	0.84	2.5	0.83	94.4	36	385
	02/16/16	MW-07-021616	156	< 0.10	26.4	24	3.27	< 0.10 J	< 0.10	0.7	0.63	2	0.65	31.5	33	305
MW-08	07/07/15	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
	09/14/15	MW-08-091415	118	0.39	23	4.9	1.5	< 0.10	< 0.10	0.7	0.7	0.58	0.19	32	5.4	230
	12/08/15	MW-08-120815	114	0.45	20.5	4.8	1.58	0.12	1.9 J+	3	1	0.75	0.25	30.1	4.4	255
	02/17/16	MW-08-021716	116	0.48 J+	21.4	5	1.73	< 0.10	< 0.10	0.81	0.77	0.5	0.16	28.1	3.3	145
MW-09	07/07/15	MW-09-070715	174	< 0.10	154	6.8	7.11	< 0.10	0.28	0.79	0.56	0.44	0.14	75.3	360	730
	09/15/15	MW-09-091515	156	0.11	151	6.6	6.83	< 0.10	0.33	0.98 J+	0.700 J+	0.49	0.16	88.8	400	745
	12/09/15	MW-09-120915	136	< 0.10	15.1	6.9	0.8	< 0.10	< 0.17	< 0.50	< 0.500	1.2	0.39	70.9	39	305
	02/17/16	MW-09-021716	138	< 0.10	9.65	6.7	0.586	0.11	< 0.10	< 0.50	< 0.500	0.65	0.21	62	19	215
Secondary Maximum Contaminant Level			nl	nl	nl	250	nl	0.5	10	nl	nl	nl	nl	nl	250	500

Notes:

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

<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.

MBAS: Methylene Blue Activated Substances

NA: Not Analyzed

nl: not listed

J: Estimated concentration

J+: Estimated concentration based on data validation

J-: Estimated concentration with low biases

Table 4
Groundwater Sample Results - Total and Fecal Coliform
Crystal Geyser Roxane
Olancha, CA

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

Notes:
Samples analyzed by BC Laboratories, Inc.
<x.xx: Indicates sample result was less than laboratory minimum reporting limit.
MPN/100ml: Most probable number per 100 milliliters.
J: Estimated concentration
R: Data rejected due to data quality issues.

Table 5
Waste Water Sample Results - Detected Metals
Crystal Geyser Roxane
Olancha, CA

Sample Location	Sample Date	Sample ID	Antimony (dissolved) µg/l	Antimony (total) µg/l	Arsenic (dissolved) µg/l	Arsenic (total) µg/l	Barium (dissolved) µg/l	Barium (total) µg/l	Cadmium (dissolved) µg/l	Cadmium (total) µg/l	Chromium (dissolved) µg/l	Chromium (total) µg/l	Copper (dissolved) µg/l	Copper (total) µg/l	Lead (total) µg/l	Molybdenum (dissolved) µg/l	Molybdenum (total) µg/l	Nickel (total) µg/l	Vanadium (dissolved) µg/l	Vanadium (total) µg/l	Zinc (dissolved) µg/l	Zinc (total) µg/l
Olancha North Waste Water During Production	2014-08-18	OL3P	1.6	1.8	2.8	3.6	5.4	6.3	ND < 0.50	ND < 0.50	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 0.50	7.1	6.8	ND < 5.0	ND < 3.0	ND < 3.0	ND < 20	ND < 20
Olancha North Waste Water during Sanitation	2014-12-15	East Pond San	ND < 1.0	ND < 1.0	12	17	9.3	10	ND < 0.50	ND < 0.50	ND < 1.0	2.0	14	16	ND < 0.50	3.7 J	5.2	ND < 5.0	ND < 3.0	ND < 3.0	33	41
East Pond, Point of Discharge during Production	2014-08-27	PP INLET	1.0	1.1	18	17	7.4	7.3	ND < 0.50	ND < 0.50	ND < 1.0	ND < 1.0	16	20	ND < 0.50	6.3	7.5	ND < 5.0	3.0 J	ND < 3.0 J	ND < 20	22
East Pond, Standing Water	2014-12-11	East Pond	ND < 1.0	ND < 1.0	9.9	10	9.6	10	ND < 0.50	ND < 0.50	ND < 1.0	ND < 1.0	6.8	8.1	ND < 0.50	4.5 J	4.9	ND < 5.0	ND < 3.0	ND < 3.0	20	25
Cooling Tower Discharge Water	2015-03-19	CT10 Drain	ND < 1.0	ND < 1.0	32	36	6.3	7.3	ND < 0.50	ND < 0.50	ND < 1.0	ND < 1.0	2.6	4.0	ND < 0.50	11	11	ND < 5.0	8.9	9.2	ND < 20	ND < 20
Olancha South Waste Water during Sanitation	2014-12-17	Fire Pond Sanit.	ND < 1.0	1.1	ND < 1.0	3.0	ND < 2.0	55	ND < 0.50	ND < 0.50	ND < 1.0	1.4	ND < 2.0	21	ND < 0.50	ND < 2.0	ND < 2.0	ND < 5.0	ND < 3.0	4.0	ND < 20	41
Fire Pond, Standing Water	2014-12-11	Fire Pond	ND < 1.0	ND < 1.0	2.6 J	1.4 J	17	15	ND < 0.50	ND < 0.50	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 0.50	ND < 2.0 R	ND < 2.0	ND < 5.0	ND < 3.0	ND < 3.0	ND < 20	ND < 20
Fire Pond, Overflow	2014-09-03	FP Outlet	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	8.0	8.2	ND < 0.50	ND < 0.50	ND < 1.0	ND < 1.0	ND < 2.0	ND < 2.0	ND < 0.50	ND < 2.0	ND < 2.0	ND < 5.0	ND < 3.0	ND < 3.0	ND < 20	ND < 20
Screening Level - 2015 Cal EPA MCL			**6.0**	**6.0**	**10**	**10**	**1,000**	**1,000**	**5.0**	**5.0**	**50**	**50**	**1,300**	**1,300**	**15**	**NE**	**NE**	**100**	**NE**	**NE**	**NE**	**NE**

Notes:
Samples analyzed by Eurofins Eaton Analytical in Monrovia, CA.
Shaded cells indicate detection exceeds the primary California Environmental Protection Agency's Maximum Contaminant Level.
NE: A Maximum Contaminant Level has not been estabilished for this element.
µg/l: micrograms per liter
mg/l: milligrams per liter
J: Estimated concentration. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+: Estimated concentration. The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
ND < : Analyte not detected above the laboratory minimum reporting limit shown.

Table 6
Waste Water Sample Results - Detected Inorganic Constituents
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Alkalinity, Bicarbonate mg/l	Biochemical Oxygen Demand mg/l	Calcium Carbonate mg/l	Calcium mg/l	Chemical Oxygen Demand mg/l	Chloride mg/l	Chlorine, Free Residual mg/l	Chlorine, Total Residual mg/l	Dissolved Oxygen mg/l	Magnesium mg/l	Nitrate (as N) mg/l	Nitrogen, Total (Calculated) mg/l	Nitrogen, Total Kjeldahl mg/l
Olancha North Waste Water During Production	2014-08-18	OL3P	62	3.5	51	19	7.0	3.0	ND < 0.10 R	ND < 0.10 R	NA	2.0	0.83	NA	ND < 0.20
Olancha North Waste Water during Sanitation	2014-12-15	East Pond San	98	12 J	80	20	57	4.9	ND < 0.10 R	ND < 0.10 R	9.0 J	1.9	0.58	1.7	1.1
East Pond Point of Discharge during Production	2014-08-27	PP INLET	120	5.0 J	98	19	15	13	ND < 0.10 R	ND < 0.10 R	NA	1.7	ND < 0.10	NA	0.26
East Pond, Standing Water	2014-12-11	East Pond	98	7.8 J	80	22	12	4.5	ND < 0.10 R	ND < 0.10 R	6.9 J	2.2	0.16	0.50	0.34
Cooling Tower Discharge Water	2015-03-19	CT10 Drain	160	ND < 3.0	--	29	ND < 5.0	3.4	ND < 0.10 H3	ND < 0.10 H3	8.8	2.4	0.42	0.42	ND < 0.20
Olancha South Waste Water during Sanitation	2014-12-17	Fire Pond Sanit.	34	ND < 3.0 J	28	19	18	2.9	ND < 0.10 R	ND < 0.10 R	8.3 J	1.4	4.0	4.0	ND < 0.20
Fire Pond, Standing Water	2014-12-11	Fire Pond	74	ND < 3.0	66	20	ND < 5.0	3.0	ND < 0.10 R	ND < 0.10 R	11 J	1.6	ND < 0.10	0.33	0.33
Fire Pond, Overflow	2014-09-03	FP Outlet	62	ND < 3.0	65	18	10	3.2	ND < 0.10 R	ND < 0.10 R	NA	1.3	ND < 0.10	NA	0.31
		Maximum Contaminant Level:	nl	nl	nl	nl	nl	250*	4	4	nl	nl	10**	nl	nl

Table 6
Waste Water Sample Results - Detected Inorganic Constituents
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Orthophosphate as P mg/l	pH	Phosphorus, Total as P mg/l	Sodium mg/l	Specific Conductance µS/cm	Sulfate mg/l	Surfactants mg/l	Total Dissolved Solids mg/l	Total Organic Halides (Average) µg/l	Total Organic Halides (Rep 1) µg/l	Total Organic Halides (Rep 2) µg/l	Total Suspended Solids mg/l
Olancha North Waste Water During Production	2014-08-18	OL3P	1.7	7.5	2.0	20	210	29	NA	NA	ND < 10 J	ND < 10 J	ND < 10 J	ND < 10
Olancha North Waste Water during Sanitation	2014-12-15	East Pond San	1.2	7.4	1.9	30	250	34	ND < 0.050	180	12	12	11	ND < 10
East Pond Point of Discharge during Production	2014-08-27	PP INLET	0.15	7.6	0.34	45	330	36	NA	NA	ND < 10	ND < 10	ND < 10	ND < 10
East Pond, Standing Water	2014-12-11	East Pond	0.50	7.6	0.57	29	250	29	0.18	200	14	15	13	ND < 10
Cooling Tower Discharge Water	2015-03-19	CT10 Drain	0.034	8.6 H3	ND < 0.02	39	340	34	ND < 0.050	260	ND < 10	ND < 10	ND < 10	ND < 10
Olancha South Waste Water during Sanitation	2014-12-17	Fire Pond Sanit.	14	6.6	14	24	220	37	3.7 J	170	14	13	15	ND < 10
Fire Pond, Standing Water	2014-12-11	Fire Pond	0.94	9.2	1.1	23	210	28	0.092	140	ND < 10	ND < 10	10	ND < 10
Fire Pond, Overflow	2014-09-03	FP Outlet	0.23	9.9	0.27	25	220	28	NA	NA	ND < 10	ND < 10	ND < 10	ND < 10
		Maximum Contaminant Level:	nl	nl	nl	nl	nl	250*	nl	500*	nl	nl	nl	nl

Notes:
Samples analyzed by Eurofins Eaton Analytical in Monrovia, CA.
*Indicates a Secondary Maximum Contaminant Level
**Indicates Maximum Contaminant Level is associated with Nitrate as N
µg/l: micrograms per liter
mg/l: milligrams per liter
µS/cm: microsiemens per centimeter
H3: Past holding time not compliant
NA: Not analyzed for this compound
ND < 0.10: Data not detected above minimum reporting limit shown.
"R" : The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
J: Estimated concentration. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

Table 7
Waste Water Results - Total Coliform Bacteria
Crystal Geyser Roxane
Olancha, CA

Location	Date Sampled	Sample ID	Total Coliform MPN/100 ml
Olancha North Waste Water During Production	2014-08-27	OL3P	NA
Olancha North Waste Water during Sanitation	2014-12-15	East Pond San	2,420 J
East Pond, Point of Discharge, Production	2014-08-27	PP INLET	NA
East Pond, Standing Water	2014-12-11	East Pond	2,420 J
Cooling Tower Discharge Water	2015-03-15	CT10 Drain	460
Olancha South Waste Water during Sanitation	2014-12-17	Fire Pond Sanit.	2,400 J
Fire Pond, Standing Water	2014-12-11	Fire Pond	120 J
Fire Pond, Overflow	2014-09-03	FP Outlet	NA

Notes:
Samples analyzed by Eurofins Eaton Analytical in Monrovia, CA.
MPN/100 ml: Most probable number of colony forming units per 100 milliliters.
J: Estimated concentration. The analyte was positively identified; the associated numerical value is the approximate
"R" : The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
NA: Not analyzed for this compound

Table 8

Waste Water Sample Results - Volatile Oganic Compounds
Crystal Geyser Roxane,
Olancha, CA

Sample Location	Date Sampled	Sample ID	2-butanone (MEK) µg/l	Acetic acid, dichloro- µg/l	Acetone µg/l	cis-1,3-Dichloropropene µg/l
Olancha North Waste Water During Production	2014-08-18	OL3P	NA	ND < 1.0	NA	NA
Olancha North Waste Water during Sanitation	2014-12-15	East Pond San	5.6	ND < 1.0	ND < 10	ND < 0.50
East Pond, Point of Discharge, Production	2014-08-27	PP INLET	NA	ND < 1.0	NA	NA
East Pond, Standing Water	2014-12-11	East Pond	ND < 5.0	ND < 1.0	ND < 10	ND < 0.50
Cooling Tower Discharge Water	2015-03-19	CT10 Drain	ND < 5.0	ND < 1.0	ND < 10	ND < 0.50
Olancha South Waste Water during Sanitation	2014-12-17	Fire Pond Sanit.	5.3	ND < 1.0	ND < 10	ND < 0.50
Fire Pond, Standing Water	2014-12-11	Fire Pond	ND < 5.0	ND < 1.0	ND < 10	ND < 0.50
Fire Pond, Overflow	2014-09-03	FP Outlet	NA	ND < 1.0	NA	NA
Screening Level - 2015 Cal EPA MCL (µg/l)			**NE**	**NE**	**NE**	**NE**

Notes:
Samples analyzed by Eurofins Eaton Analytical in Monrovia, CA.
NE: A Maximum Contaminant Level has not been estabilished for this element.
NA: Not analyzed for this compound
µg/l: micrograms per liter
J: Estimated concentration. The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+: Estimated concentration. The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
ND < : Analyte not detected above the laboratory minimum reporting limit shown.

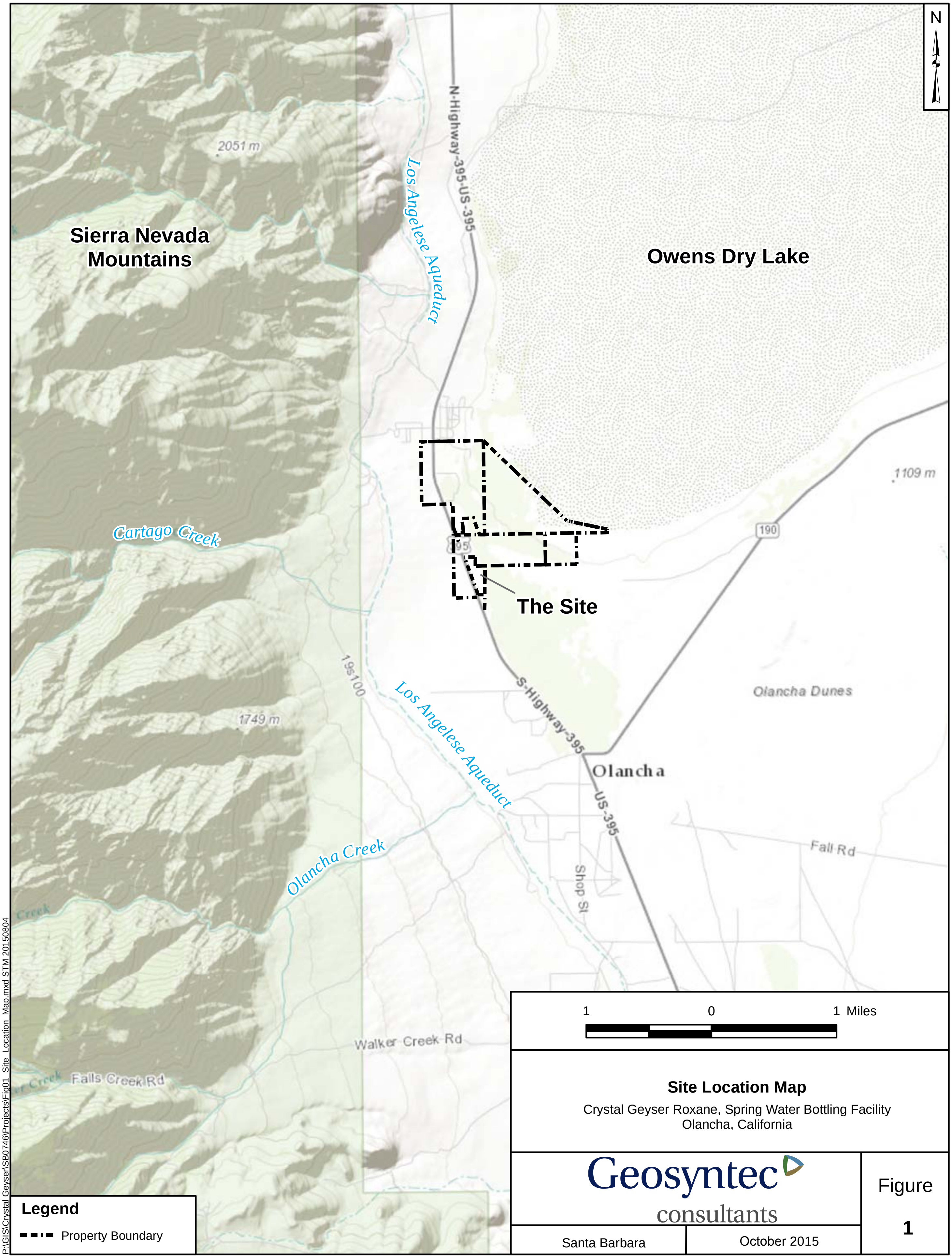
Table 9
Discharge to Ponds Composite Sample Results
Crystal Geyser Roxane
Olancha, CA

Location:	Discharge to East Pond		Discharge to Fire Pond		Primary MCL	Units	Analytical Method
Sample ID:	EP-020616	EP-021816	FP-021816	FP-040716			
Date:	2/6/2016	2/18/2016	2/18/2016	4/7/2016			
Calcium	23.3	17.0	22.1	22.3	--	mg/L	EPA 200.7
Magnesium	2.07	1.50	1.66	1.59	--	mg/L	EPA 200.7
Sodium	32.2 B	42.5	24.2	24.8	--	mg/L	EPA 200.7
Chloride	80	8.1	4.3	3.1	--	mg/L	EPA 300.0
Sulfate	42	35	35	35	--	mg/L	EPA 300.0
Antimony (dissolved)	NA	0.00131	0.00506	<0.001	0.006	mg/L	EPA 6020
Antimony (total)	0.00106	0.00139	0.00544	<0.001		mg/L	EPA 6020
Arsenic (dissolved)	NA	0.0162	0.00419	<0.001	0.010	mg/L	EPA 6020
Arsenic (total)	0.00304	0.0167	0.00449	<0.001		mg/L	EPA 6020
Barium (dissolved)	NA	0.00880	0.0241	0.0153	1.000	mg/L	EPA 6020
Barium (total)	0.00670	0.00918	0.0250	0.0166		mg/L	EPA 6020
Beryllium (dissolved)	NA	<0.001	<0.001	<0.001	0.004	mg/L	EPA 6020
Beryllium (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Cadmium (dissolved)	NA	<0.001	<0.001	<0.001	0.005	mg/L	EPA 6020
Cadmium (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Chromium (dissolved)	NA	<0.001	0.00134	<0.001	0.050	mg/L	EPA 6020
Chromium (total)	<0.001	<0.001	0.00135	<0.001		mg/L	EPA 6020
Cobalt (dissolved)	NA	<0.001	<0.001	<0.001	--	mg/L	EPA 6020
Cobalt (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Copper (dissolved)	NA	0.00800	0.0114	<0.001	1.300	mg/L	EPA 6020
Copper (total)	0.00138	0.00790	0.0117	<0.001		mg/L	EPA 6020
Lead (dissolved)	NA	<0.001	<0.001	<0.001	0.015	mg/L	EPA 6020
Lead (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Molybdenum (dissolved)	NA	0.00626	0.00114	<0.001	--	mg/L	EPA 6020
Molybdenum (total)	0.0130	0.00633	0.00130	<0.001		mg/L	EPA 6020
Nickel (dissolved)	NA	<0.001	0.00186	<0.001	0.100	mg/L	EPA 6020
Nickel (total)	<0.001	<0.001	0.00190	<0.001		mg/L	EPA 6020
Selenium (dissolved)	NA	<0.001	<0.001	<0.001	0.050	mg/L	EPA 6020
Selenium (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Silver (dissolved)	NA	<0.001	<0.001	<0.001	--	mg/L	EPA 6020
Silver (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Thallium (dissolved)	NA	<0.001	<0.001	<0.001	0.002	mg/L	EPA 6020
Thallium (total)	<0.001	<0.001	<0.001	<0.001		mg/L	EPA 6020
Vanadium (dissolved)	NA	0.00401	<0.001	<0.001	--	mg/L	EPA 6020
Vanadium (total)	<0.001	0.00435	<0.001	<0.001		mg/L	EPA 6020
Zinc (dissolved)	NA	0.00933	0.0502	0.0174	--	mg/L	EPA 6020
Zinc (total)	0.00639	0.00769	0.0572	0.0114		mg/L	EPA 6020
Mercury (dissolved)	NA	<0.0005	<0.0005	<0.0005	0.002	mg/L	EPA 7470A
Mercury (total)	<0.0005	<0.0005	<0.0005	<0.0005		mg/L	EPA 7470A
Phenol	<9.8	<9.8	160	<9.8	--	µg/L	EPA 8270C
Alkalinity, Total (as CaCO3)	92.0	89.0	37.0	64.0	--	mg/L	SM 2320B
Bicarbonate (as CaCO3)	92.0	89.0	37.0	64.0	--	mg/L	SM 2320B
Solids, Total Dissolved	155	205	180	195	--	mg/L	SM 2540 C
pH	7.64 BV,BU	7.19 BV,BU	6.5 BV,BU	7.05 BV,BU	--	pH units	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.91	<0.50	<0.50	1.3	--	mg/L	SM 4500 N Org B
Phosphorus, Total	0.10	0.34	12	0.32	--	mg/L	SM 4500 P B/E
Total Phosphate	0.32	1.0	36	0.98	--	mg/L	SM 4500 P B/E
Ammonia (as N)	<0.10	<0.10	<0.10	<0.10	--	mg/L	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.29	0.27	3.6	0.3	10	mg/L	SM 4500-NO3 E
MBAs	<0.10	0.20	3.0	0.15	--	mg/L	SM 5540C
Total Nitrogen	1.2	<0.50	3.6	1.5	--	mg/L	Total Nitrogen by Calc
Total Coliform	NA	>1,600	>1,600	>1,600	--	MPN/100mL	SM-9221B
Fecal Coliform	NA	<1.8	<1.8	<1.8	--	MPN/100mL	SM-9221E

Abbreviations
MCL = California Maximum Contaminant Level
MPN = most probable number
mg/L = milligrams per liter
µg/L = micrograms per liter
mL = milliliter
NA = not analyzed
MBAs = methyl blue active substances
BV = sample received after holding time expired
BU = sample analyzed after holding time expired
-- = none

Notes:
1. Nitrate MCL is in units of mg/L as nitrate.
2. No detections of volatile organic compounds were reported for analytical method 8260B for any samples.
3. All samples were analyzed for semi-volatile organic compounds by method EPA 8270C. Phenol was the only constituent detected, as shown above.

FIGURES



Site Location Map

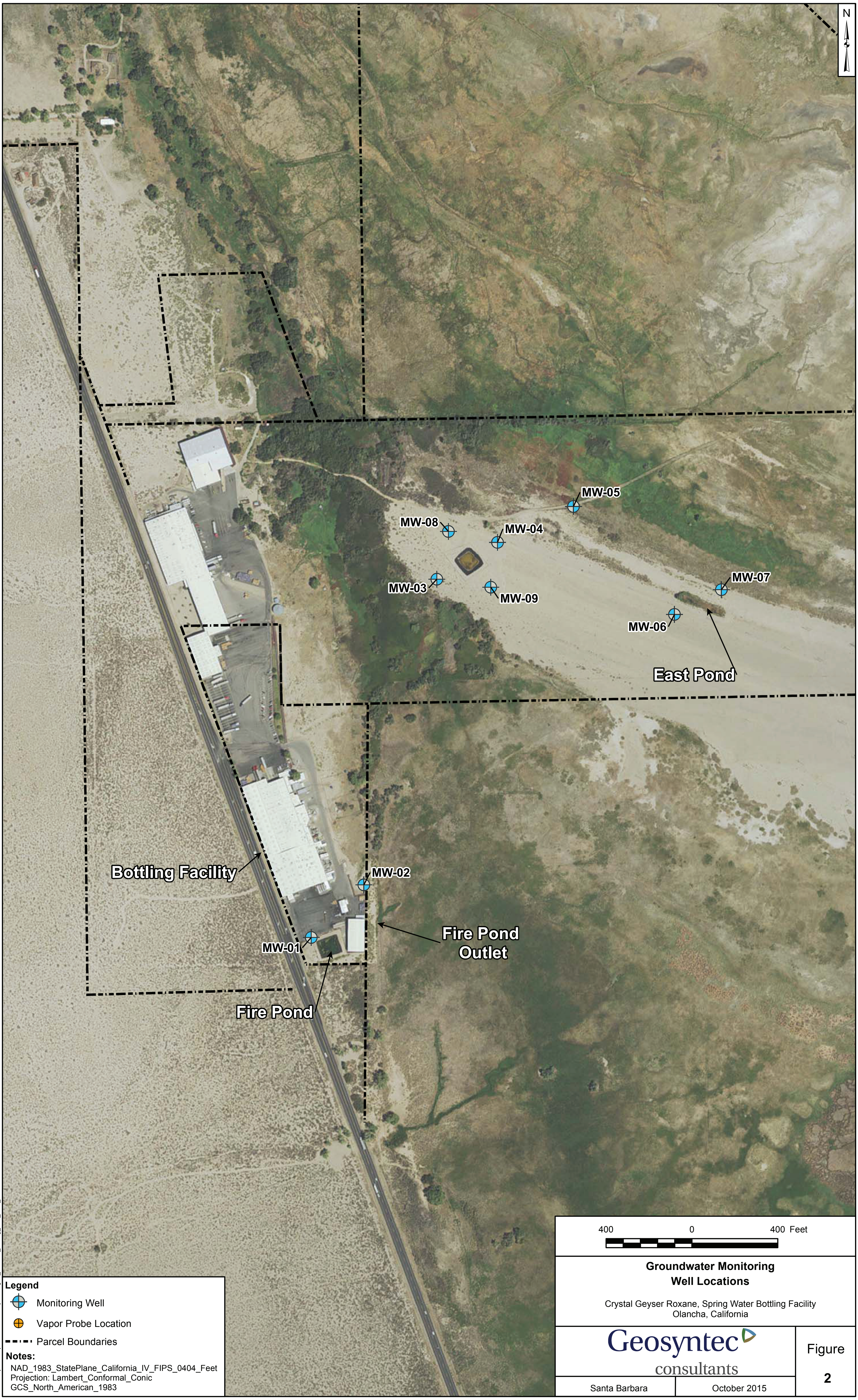
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

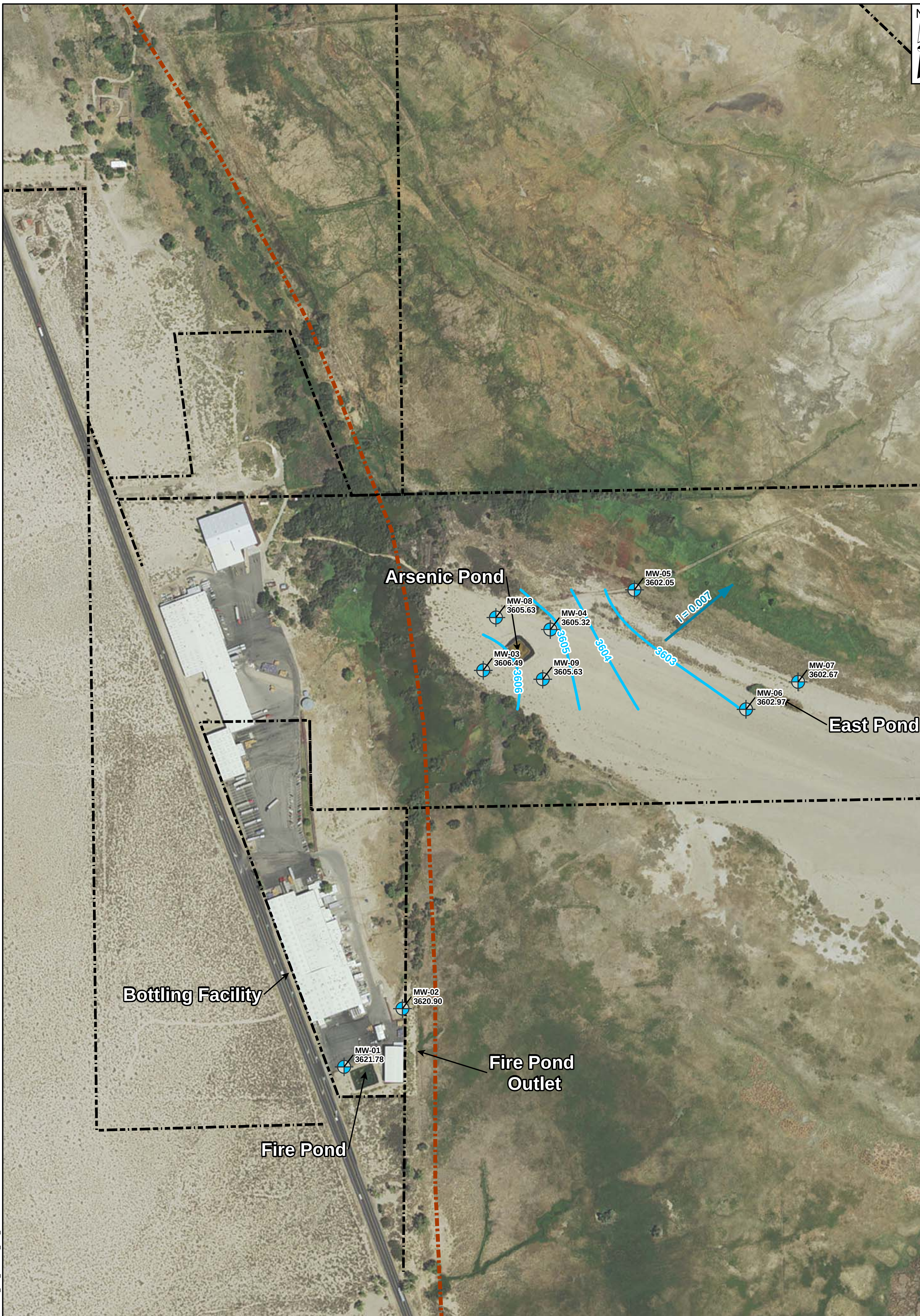
Santa Barbara | October 2015

Figure 1

P:\GIS\Crystal Geyser\SB0746\Projects\Fig01_Site_Location_Map.mxd STM 20150804



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



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
February 16-17, 2016
Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara | March 2016

Figure **3**

P:\GIS\Crystal Geyser\SB0746\Projects\2016Q1\Fig03_Groundwater_Elevations_and_Gradient_Feb_2016.mxd TCB 20160307

APPENDIX A

INTERIM REMEDIAL MEASURES FINAL REPORT

Prepared for

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

INTERIM REMEDIAL MEASURES FINAL 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

Project Number SB0670D

August 19, 2015

{00317159;1}

INTERIM REMEDIAL MEASURES FINAL REPORT
Olancha Spring Water Bottling Facility

1210 South U.S. Highway 395
Olancha, California

Prepared for

Crystal Geyser Roxane

August 19, 2015

Mark Grivetti, P.G., C.E.G., C.Hg.
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{00317159;1}

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EXECUTIVE SUMMARY

This Interim Remedial Measures Final Report ("Report") is in response to a Department of Toxic Substances Control (DTSC) letter addressed to Crystal Geyser Roxane, LLC (CGR) on June 19, 2015 requesting information on the Arsenic Pond removal located at the CGR facility. From May 11 through 20, 2015, liquids were removed from the pond, followed by excavation of the sediment and the pond liner. United Storm Water (United) transported approximately 27,000 gallons of liquids, from the Arsenic Pond, to Starlite Reclamation Services in Fontana, California for disposal. Approximately 108 cubic yards of sediment and pond liner were transported by United to South Yuma County Landfill located in Yuma, Arizona. Detailed information regarding the events of the Arsenic Pond removal at the CGR facility is provided in this report.

In addition to working with the DTSC, CGR is currently conducting groundwater investigation activities, under the California State Water Resource Control Board's direction, in the area surrounding the Arsenic Pond to evaluate impacts to underlying groundwater (Figure 1).

1.0 INTRODUCTION

Beginning in September 2014, the Department of Toxic Substances Control (DTSC) began discussions with CGR on potential violations related to the Arsenic Pond. On October 17, 2014, the final filter regeneration event occurred with the wastewater going to a high density polyethylene (HDPE) lined pond (Arsenic Pond). During this regeneration, DTSC personnel were on-site and collected samples during the process. The sample results were detailed in the “RE: Response to Complaint Investigation Report” dated June 22, 2015 (Appendix A). The Arsenic Pond was formerly used to collect the wastewater generated during manganese dioxide sand filter regeneration at the facility.

Geosyntec Consultants (Geosyntec) has prepared this report by compiling information from CGR staff and contractors involved in the decommissioning of the Arsenic Pond. Although Geosyntec staff were not involved in the decommissioning, Geosyntec has a long history of working at the site and was therefore contracted to prepare this report. All activities documented in this report were conducted by CGR and their subcontractor United Storm Water, Inc. (United) and Starlite Reclamation Services (Starlite). Geosyntec has utilized the previously submitted CGR letters, reports, and telephone interviews to document the activities conducted at the site.

2.0 GENERAL SITE CHARACTERIZATION

2.1 General Site Description

The Site has a physical address of 1210 South Highway 395, Olancha, California 93549 (Figure 1). The Site is an irregularly-shaped property that consists of approximately 170 acres adjacent to Highway 395, approximately 3 miles north of Olancha, California. 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 prior to arsenic pond decommissioning was submitted in the *Facility Waste Generation and Discharge Systems Report* (CGR, 2014).

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. The Los Angeles Aqueduct is located approximately ½-mile west of the Site.

2.2 Description of Waste Source

The waste stream associated with this report was formerly generated during regeneration of magnesium dioxide sand filters used to remove naturally occurring arsenic from produced groundwater prior to the bottling process.[1] However, naturally occurring groundwater in the area contains concentrations of arsenic in excess of this guideline. Therefore, prior to bottling, water is pumped through a manganese dioxide sand filter to reduce arsenic concentrations to levels allowable by the FDA.

The sand filters, located in each of the buildings, filtered arsenic over time and required periodic regeneration. The regeneration of the sand filters formerly consisted of utilizing a 30 percent sodium hydroxide solution to back flush the arsenic from the sand filters. Following the sodium hydroxide back flush, water was used to flush and recondition the system prior to restarting the water treatment and bottling process. Prior to October 17, 2014 the waste stream from the regeneration process was sent to the Arsenic Pond. Details on the former process are described in the *Facility Waste Generation and Discharge Systems Report* (CGR, 2014). Based on discussions with CGR staff, following modification of the process on October 17, 2014, no additional water has been discharged to the Arsenic Pond.

[1] 10 ppb (21 CFR 165.110(b)(4)(iii)(A)).

2.3 Analytical Data

According to the CGR letter to DTSC entitled "RE: Response to Complaint Investigation Report" dated June 22, 2015 (see Appendix A), a sample was collected from the sediment overlying the liner in the Arsenic Pond and submitted to Positive Lab Service located in Los Angeles, California for analysis. The laboratory analysis consisted of volatile organic compounds via Method EPA 8260B, semi-volatile organic compounds via Method EPA 8270C, and metals (Barium, Cadmium, Chromium, Lead, Selenium, Silver, and Mercury, Arsenic) via Method EPA 6010B/3050B/7471A (See Appendix D).

Additionally, according to the same CGR letter, six liquid waste samples were collected from the water removed from the Arsenic Pond. These samples were analyzed for pH, Total Dissolved Solids (TDS), and Chemical Oxygen Demand by Starlite (Appendix B).

3.0 IDENTIFICATION OF REMOVAL ACTION OBJECTIVES

3.1 Determination of Removal Scope

According to CGR, on May 6, 2015 United was hired as a third-party hauler to perform the cleanup of the Arsenic Pond (liquids, sediment, and high-density polyethylene liner) (CGR, 2015). In their letter to CGR dated June 19, 2015, DTSC stated that on May 19, 2015 the department was informed, via email, that CGR had removed all liquid remaining in the Arsenic Pond and stored the liner onsite in hazardous waste bins for DTSC inspection. On May 20, 2015 DTSC contacted CGR with regard to the email the previous day, concerning the removal status of the Arsenic Pond. The removal was confirmed and CGR informed DTSC that the requirement to submit a work plan had been overlooked (DTSC, 2015). On May 28, 2015, DTSC contacted CGR to request the submittal of a final report in lieu of the work plan (DTSC, 2015). This Report responds to DTSC's request. (DTSC, 2015).

3.2 Planned Remedial Activities

The planned remedial activities were conducted prior to preparation of this document. The completed activities are documented in **Section 4.6: Scope of Work Completed** below.

4.0 PROJECT SUMMARY

4.1 Description

This report summarizes the details associated with removal of the Arsenic Pond at the CGR Olancha, California bottling facility. The report includes a chronology of the history of the site, the scope of work completed, the liquids and sediment removed from the site, and the identification of the transporter and disposal facilities.

4.2 Chronology

The following table describes the activities in chronological order that have occurred to date.

Table 1: Chronology of Pond Associated Activities

Date	Summary
March 1, 2014	Water Board submits the inspection report on the CGR facility to CGR.
September 24, 2014	DTSC collects samples from the piping and Arsenic Pond (CGR, 2015).
October 8, 2014	CGR requests split samples from any on-site sampling to be conducted by the DTSC (CGR, 2015).
October 17, 2014	Final discharge into the Arsenic Pond occurred while the DTSC was on-site to observe the activities and collect samples of the piping and Arsenic Pond. (CGR, 2015)
October 18-19, 2014	DTSC conducts review of the facility and its operations.
October 20, 2014	Email from CGR staff to DTSC discussing the site visit. CGR details the samples that DTSC collected and that they were not provided split samples as well as details on some of the process activities (CGR, 2015).
March 2015	CGR Conducts a filter regeneration and approximately 11,000 gallons of liquids were flushed directly into disposal trucks for hazardous waste disposal (CGR, 2015).
April 13, 2015	DTSC issues a Summary of Violations (SOV) to CGR consisting of three alleged violations with respect to the Arsenic Pond. A meeting is held with CGR, DTSC, and CGR representatives to discuss alleged violations related to CGR's Arsenic Pond and provide CGR with the SOV (DTSC, 2015).
May 6, 2015	CGR contracts United Storm Water, Inc. to conduct pond removal and disposal (CGR, 2015).
May 7, 2015	Letter from Page Beykpour to DTSC detailing the arsenic removal process, changes to the system, proposal for effluent neutralization, and conclusions to the new system (attached in Appendix A).
May 11-15, 2015	United Storm Water, Inc. removed liquids from the Arsenic Pond. Approximately 27,000 gallons of liquids were transported to Starlite Reclamation Environmental Services (Starlite) in Fontana, California for disposal, Appendix B (CGR, 2015).
May 14, 2015	Page Beykpour contacted DTSC to inform them that CGR had commenced cleanup efforts on the Arsenic Pond. DTSC requested CGR temporarily store the Arsenic Pond sediment and liner onsite to allow for DTSC inspection (CGR, 2015).

May 12-20, 2015	United Storm Water, Inc. removes the sediment and pond liner from the Arsenic Pond. Approximately 108 cubic yards of waste was temporarily stored at the site until the DTSC cleared the material for disposal, as further discussed below (CGR, 2015).
May 20, 2015	According to DTSC reports, CGR stated to DTSC that the requirement to submit a work plan was overlooked; as a result, DTSC required that CGR cease any further activities pertaining to the Arsenic Pond (DTSC, 2015).
May 22, 2015	DTSC submits the “Complaint Investigation Report” to CGR detailing the findings of their facility review. The report detailed three violations: 1) Storage of hazardous waste without authorization, 2) Operating a hazardous waste treatment unit without authorization, and 3) Failed to make a hazardous waste determination.
May 28, 2015	Page Beykpour emails DTSC to discuss the status of activities being conducted at the facility and to request a site visit to expedite the disposal of the solid waste. Following the email, DTSC staff contacted Page Beykpour via telephone and authorized waste disposal (Appendix F).
May 29, 2015	Page Beykpour emails DTSC to discuss the previous days’ conversation, to give a summary of activities conducted, and to request waste disposal of the solid waste.
June 5, 2015	United Storm Water, Inc. transports approximately 108 cubic yards of non-hazardous solids to South Yuma County Landfill for final disposal.
June 19, 2015	Letter from DTSC to CGR reiterating recent events that have occurred at the CGR facility with respect to the Arsenic Pond and informing CGR of report requirements (DTSC, 2015)
June 22, 2015	Page Beykpour’s response to the DTSC letter of June 19, 2015 with CGRs clarifications and disputes (CGR, 2015).

4.3 Scope of Work Completed

It is our understanding that United was contracted to complete the decommissioning of the Arsenic Pond on May 6, 2015. Work scope for decommissioning activities on the Arsenic Pond included removing the liquid, sediment, and HDPE linear from the pond (CGR, 2015).

4.4 Actions

A summary of the actions taken during the pond decommissioning is outlined in the following sections.

4.4.1 Waste Removal, Transport, and Disposal

Approximately 27,000 gallons of liquids were removed for offsite disposal from May 11 through May 15, 2015 (Appendix B). The liquid waste was transported under United’s waste transporter company United Pumping Service, Inc. with an EPA ID Number of CAD072953771. The liquid waste was sent to the Starlite Reclamation Services facility located at 11225 Mulberry Avenue in Fontana, California 92337 for final disposition. The Starlite facility operates under an EPA ID Number of CAR000148296.

The sediment consisted of residual solids above the liner and the HDPE liner itself. It is our understanding that the sediment was excavated from the area and placed in waste disposal containers for subsequent offsite transport and disposal between May 12 and 20, 2015 (CGR, 2015). Approximately 108 cubic yards of sediment were transported offsite for final disposition on June 5, 2015 (Appendix C and CGR, 2015). The sediment waste was transported under United's waste transporter company United Pumping Service, Inc. with an EPA ID Number of CAD072953771. The sediment waste was sent to South Yuma County Landfill located at 19536 South Avenue 1E, Yuma, Arizona 85366 for final disposition. The South Yuma County Landfill operates under an EPA ID Number of AZR000506980.

4.4.2 Confirmation Sampling

Confirmation sampling has not been conducted at this facility. CGR is currently conducting groundwater investigation activities under the State Water Resource Control Board's (SWRCB) direction of the area surrounding the Arsenic Pond (See Figure 1). A Phase 2 Investigation Work Plan was submitted to the SWRCB electronic office system on August 14, 2015. In short order, Geosyntec will deliver a copy of this report to DTSC under separate cover.

5.0 PERMITTING

Based on CGR's review of its records as well as discussions with the Inyo County ("County") Planning Department and Environmental Health Services staff, it appear that there was never a permit issued for the operation and/or use of the Arsenic Pond. However, CGR does believe that the County's Public Works Department may have issued a grading permit for the actual construction of the pond. CGR has requested that the Public Works Department search its archives for the grading permit. CGR will produce any related documents discovered pertaining to the grading permit upon its receipt.

The County did not require a permit for the waste removal from the Arsenic Pond.

6.0 UPDATED REGENERATION PROCESS

As described in CGR's June 22, 2015 letter, CGR has installed two parallel tank systems (north and south) containing self-contained and closed piping that will allow for the neutralization of waste prior to transport and disposal (CGR, 2015).

CGR received preliminary confirmation that the Inyo County Department of Environmental Health Services has approved its submittal for neutralization (CERS ID 10128880) (Cers Automated Messaging, 2015) (Appendix H).

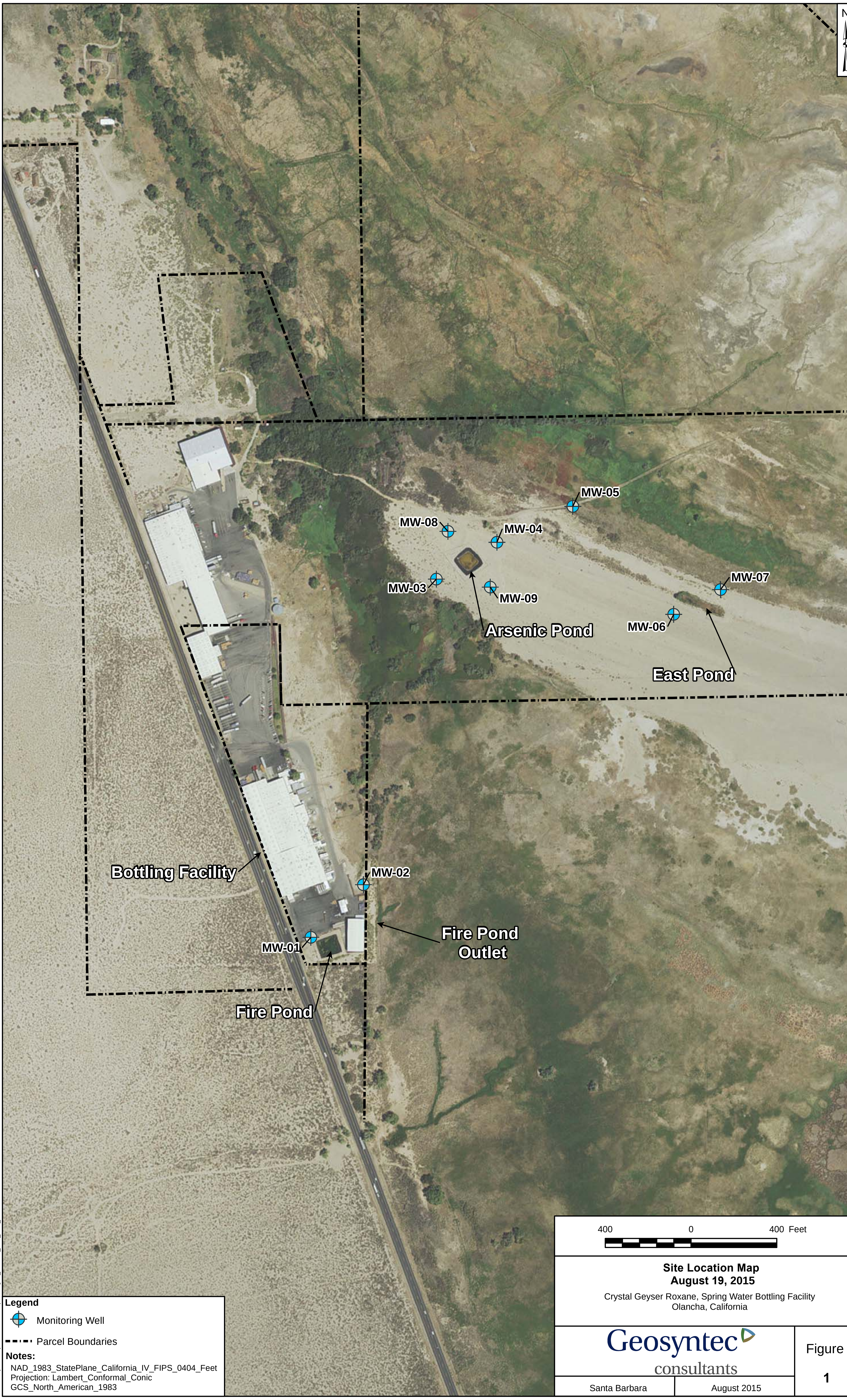
7.0 REFERENCES

CGR, 2014. *Facility Waste Generation and Discharge Systems Report*, Crystal Geyser Roxane, LLC. 21 October.

CGR, 2015. *Response to Complaint Investigation Report*, Crystal Geyser Roxane, LLC. 22 June.

DTSC, 2015. *CG Roxane, LLC: Final Report Requirements*, Department of Toxic Substances Control. 19 June.

FIGURES



Legend

Monitoring Well

Parcel Boundaries

Notes:

NAD_1983_StatePlane_California_IV_FIPS_0404_Feet
Projection: Lambert_Conformal_Conic
GCS_North_American_1983

Site Location Map
August 19, 2015

Crystal Geyser Roxane, Spring Water Bottling Facility
Olancha, California

Geosyntec consultants

Santa Barbara	August 2015	Figure 1

P:\GIS\Crystal Geyser\SB0746\Projects\Fig03_Phase2_GW_Well_Locations.mxd STM 20150804

APPENDIX A
CGR Letter to DTSC on June 22, 2015

CG Roxane LLC

Crystal Geyser® Alpine Spring Water®, Bottled at the Source

June 22, 2015

SENT VIA ELECTRONIC & CERTIFIED MAIL

Robert Kou
Branch Chief
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, California 91311

Re: Response to Complaint Investigation Report

Dear Mr. Kou:

I am writing on behalf of CG Roxane LLC ("CGR" or "the Company") in response to the Department of Toxic Substance Control's ("DTSC" or "the Department") letter, with enclosed Complaint Investigation Report, dated May 22, 2015 ("Complaint Report"). The Department's letter was received by CGR on May 26, 2015. This Complaint Report relates to an investigation of CGR's waste water discharge practices to three ponds (i.e., "Arsenic Pond", "East Pond", and "Fire Pond") from its Olancha, California bottled water facility ("the Facility").

DTSC's letter requests that CGR submit a written response within 30 days "describing the corrective actions" that the Company has taken. Furthermore, the letter indicates that "any dispute of the violations" should be explained in CGR's written response.

A. Corrective Actions

To confirm, CGR first received a Summary of Violations ("SOV") from the DTSC on April 13, 2015 during a face-to-face meeting at the Department's Chatsworth office. At that time, the Department explained that the SOV was preliminary in nature and could be amended by DTSC. CGR was instructed that a final SOV would be incorporated in the Department's Complaint Report.

The final SOV was incorporated within the Complaint Report and alleged the following violations: (1) Storage of Hazardous Waste Without Authorization, (2) Operating a Hazardous Waste Treatment Unit Without Authorization, and (3) Waste Classification.

As previously indicated during this April 13th meeting, and as further outlined in CGR's letter dated May 7, 2015 to the Department (*See Appendix A*), CGR has voluntarily and permanently ceased all further discharge practices to the Arsenic

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Pond. Furthermore, CGR has completed the cleanup efforts identified in the May 7th letter. The final discharge event relative to the Arsenic Pond occurred on October 17, 2014. This was during such time that DTSC's staff was present.

Since then, CGR has systematically (and at considerable financial expense) transported off-site all hazardous waste water resulting from regeneration of the sand filters[1] to authorized waste facilities using registered third-party hauler companies.

On May 6, 2015, CGR hired United Storm Water, Inc. ("United"), a registered third-party hauler, to perform the cleanup of the Arsenic Pond (liquid waste water, sediment, and the high-density polyethylene liner).

Accordingly, from May 11 to May 15, 2015, approximately 27,000-gallons of liquid waste was collected from the Arsenic Pond and transported off-site to an authorized waste facility by United. *See Appendix B – Manifest.* Notably, the liquid was analyzed for pH and did not represent hazardous characteristics. *See Appendix C – pH Analysis for Liquid Waste.*

From May 12 to May 20, 2015, approximately 108 cubic yards of sediment as well as the HDPE liner were collected and stored onsite in hazardous waste bins to allow for DTSC's inspection. During this time, United collected samples from the sediment in order to analyze the debris for waste characteristics. Notably, it was determined that the sediment did not present any hazardous waste characteristics, including the constituent of most concern –arsenic. *See Appendix D – Sediment Analysis.* On June 5, 2015, the Arsenic Pond sediment and HDPE liner were removed by United and transported off-site to an authorized waste facility for disposal.

There is no further liquid and/or sediment waste located on or around the Arsenic Pond impoundment site area. *See Appendix E – photograph taken May 20, 2015.* As mentioned during prior conversations with the Department, CGR is prepared to assist in any way, at the Department's direction, in the evaluation of subsurface soils at the impoundment site to assess whether soil contamination has in fact occurred. Furthermore, as the Department is well aware, CGR has been cooperating fully with the California Regional Water Quality Control Board, Lahontan Region's ("Water Board") investigation of the site. Presently, at the direction of the Water Board, CGR is drilling 9 monitoring wells around the Arsenic Pond, East Pond and Fire Pond locations. The Water Board is presently mandating that the Company perform a minimum of four quarters of monitoring, analysis and reporting to determine whether groundwater contamination has occurred relative to discharges from the Facility.

As you may recall, on May 14, 2015, CGR's Chief Operations Officer, Page Beykpour, notified DTSC staff (i.e., yourself, David Stuck, and Christie Bautista) by

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[1] March 20, 2015 - Lines 1, 2, and 4; May 15, 2015 - Line 6, May 21, 2015 – Lines 3, 5.

telephone that CGR had commenced cleanup efforts for the Arsenic Pond. At that time, pursuant to the Department's request, CGR agreed to temporarily store the Arsenic Pond sediment and liner onsite to allow for DTSC inspection. *See Appendix F – Beykpour email dated May 28, 2015.* That afternoon, Mr. Stuck and Ms. Bautista responded to Mr. Beykpour via telephone. During that conversation, DTSC authorized the disposal of the sediment and liner pursuant to applicable law and regulations. *See Appendix G – Beykpour email dated May 29, 2015.*

Given the completion of the abovementioned remedial measures, CGR is no longer discharging and/or storing hazardous waste at an impoundment onsite. All wastes generated relative to the regeneration of the sand filters that may be hazardous are being transported off-site.

The Department states on page 8 of its Complaint Report that the arsenic filter piping system is susceptible to employee disposal of hazardous chemicals into the Arsenic Pond or East Pond. While CGR more particularly disputes below that such practices have occurred in the past, CGR does recognize and appreciate DTSC's concerns. CGR will take remedial steps, in good faith, to secure these piping systems to preclude the risk, whether unlikely or not, of employee disposal of hazardous chemicals in this piping system. CGR will collaborate the Department with respect to these measures.

The Department shows in photographs on page 7 and 8 of its October 17, 2014 Sample Report that CGR is neutralizing the waste water stream with sulfuric acid mix solution at discharge outflows from SF-1 and SF-2. It is identified that this waste stream is then conveyed via pipe to the distribution box.

CGR is in the process of installing two parallel tank systems (north and south) containing self-contained and closed piping, which will allow for the discharge of waste water from the sand filter units to an 8,000-gallon neutralization tank, as more particularly described in the Company's May 7, 2015 letter. *See Appendix A.* Therefore, the sulfuric acid mix will be added to the waste water within the tank via a circulation pump. *See Appendix A – CGR's May 7, 2015 letter.* As stated in the May 7th letter, CGR believes that this intended neutralization process can be permitted by rule. CGR is currently coordinating with the County of Inyo Environmental Health Services Department to obtain all necessary approvals for this neutralization process.

On page 2 of Water Board's Inspection Report dated March 1, 2013 (Attachment B to the Department's Complaint Report) it is stated that the "Water Board staff observed that the steel box was corroded in places and contained sediment in the bottom." While CGR has no reason to believe that the distribution box apparatus system is leaching, compromised or failing in any way, the Company will remove the system entirely and replace it with a direct piping connection[2] in order to completely address any concerns DTSC's may have. During such removal process, CGR will ensure that all residual sediment and/or waste water within the distribution box is classified, handled and disposed of properly pursuant to applicable regulations. It does bear note at this time that the water and sediment samples collected from the residue in the distribution box by DTSC were analyzed and did not exhibit hazardous characteristics.[3] In fact, both samples were non-detect for arsenic.

Overall, CGR is presently making waste determinations for each of its waste streams. All wastes that exhibit hazardous characteristics (e.g., the initial 10,000 – 20,000 gallons of waste water following back-flush of the sand filters) are being managed and disposed of as "hazardous waste" through the use of appropriate manifests and registered third-party transporters to facilities which are permitted to accept such waste streams. CGR shall continue to maintain records of such disposals at the Facility for inspection.

B. Dispute / Clarification of Certain Facts for Violations

1) Storage of Hazardous Waste Without Authorization

(i) pH Levels of Stored Liquids

The SOV states in the first paragraph of violation #1 that: "CGR violated CA Health and Safety Code Section 25201(a) in that on or about September 9, 2014, CGR stored a hazardous waste (..., pH <2, pH >12.5) at its facility...".

In relevant part HSC Section 25201(a) provides that "no owner or operator of a storage facility, treatment facility, transfer facility, resource recovery facility, or disposal site shall accept, treat, store, or dispose of a hazardous waste at the facility, area, or site, unless the owner or operator holds a hazardous waste permit..."

It is unclear by the language of the SOV which *"stored"* waste at the Facility the Department is referring to. However, based on the contextual language surrounding this paragraph, CGR reasonably infers that the Department is referring to pH levels of the liquids contained within the Arsenic Pond.

If CGR's understanding is correct, CGR respectfully disagrees with this factual assertion. The laboratory analysis of DTSC's sample[4] collected from the liquid at the Arsenic Pond showed a pH level of 10.1, which represents a value below hazardous limits. The Water Board's inspection and field sampling that occurred on March 1,

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[2] The inflow pipe to the distribution box will be connected directly to the outflow pipe conveying waste water to the East Pond.

[3] CGDB -03 & CGDB- 04 – September 24, 2014

[4] CGAP-01 – September 24, 2014

2013 further corroborated this finding. Additionally, The Water Board's sampling of the liquid in the Arsenic Pond showed a pH level of 11.5. *See Water Board's Inspection Report (p. 2).* Such pH values are characterized as non-hazardous under CCR Title 22. Section 6626.22(a)(1).

The SOV states in the third paragraph of violation #1 that: "on or about October 17, 2014, DTSC collected waste water samples from the pipe leading to and emptying into the 'arsenic pond'". It is asserted that these samples were shown by laboratory analysis to contain hazardous levels of liquids with a pH<2 and pH>12.5. While CGR recognizes that field samples collected from the waste water flowing through the distribution box during the regeneration process showed hazardous pH levels of 1.68[5] and 12.62[6] respectively, these waste steams were not representative of pH levels of waste water *stored* within the Arsenic Pond or of waste discharged to the pond. Notably, the distribution box is not located within or part of the Arsenic Pond. It is not used as a storage location, rather, it serves merely as a vessel to divert (and at times neutralize[7]) waste streams. The Company posits that since this waste stream was immediately flowing through a vessel (i.e., a pipeline and the distribution box) it was not "stored" as defined under HSC Section 25201. Furthermore, this particular limited stream of waste water exhibiting corrosive characteristics was not disposed of, but was rather discharged into and diluted by a much larger quantity of non-hazardous liquid. Therefore, the Arsenic Pond, the impoundment used for storing waste water, retained its non-hazardous characteristics relative to pH.

Based on the foregoing, CGR respectfully requests that DTSC reconsider its assertion that CGR violated HSC 25201 because the Company stored hazardous waste water containing pH levels <2 or >12.5 within the Arsenic Pond.

(ii) Arsenic Levels of Stored Liquids

The SOV states that CGR violated CA Health and Safety Code Section 25201(a) in that on or about September 9, 2014" and "on or about October 17, 2014" DTSC collected waste water samples from both (1) the Arsenic Pond and (2) the pipe leading to and emptying into the Arsenic Pond. The laboratory analysis from these samples showed hazardous levels of arsenic at 24.2 mg/l[8] and 14.6 mg/l[9], respectively.

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[5] CGGF-14 – October 17, 2014, 0815 hrs

[6] CGGF -16 – October 17, 2014, 0940 hrs

[7] Prior to the recently implemented changes relative to neutralization within a standalone tank, the neutralization of effluent from sand filters located within the southern portion of the facility previously occurred at the distribution box (i.e., sulfuric acid mix was introduced within the distribution box and allowed to homogenize and neutralize the waste stream prior to discharge into the arsenic pond).

[8] CGAP-01 – September 24, 2014

[9] CGGF-16 – October 17, 2014, 0940 hrs

CGR concedes that the analysis from DTSC's inspection demonstrates that the Arsenic Pond contained federally regulated RCRA hazardous waste levels for arsenic at specific points in time. However, CGR believes that these levels may not have been consistent over the duration of waste water storage within the pond and, therefore, these results are not representative of the entire stored waste water. The Company believes that factors such as the frequency of a given regeneration event, rainfall, volume of non-hazardous wastewater discharged during a regeneration event, and saturation of the sand filter; all have significant impacts on the concentration of arsenic within pond. A clear example of this is seen with the wide discrepancy in values observed during the two separate samples collected by DTSC of the liquid which occurred during a relatively short timeframe (i.e., 14.6 mg/l and 24.2 mg/l) as well as the fact that the sediment within the arsenic pond was non-hazardous.

Paramountly, CGR believes that the samples taken by DTSC are not necessarily representative of the waste water stored within the Arsenic Pond since the liquids within the pond may have exhibited average properties over time that were non-hazardous for arsenic. As previously mentioned, many operational and environmental factors contribute to the concentration of arsenic within the pond, which as demonstrated by analysis of the sediment, likely were non-hazardous at various points in time.

As you know, it is somewhat problematic that CGR could not independently verify DTSC's analysis since split samples were not provided as requested by CGR[10]. Furthermore, CGR did articulate its concerns very early in the investigation that DTSC analyze samples across various intervals of the entire regeneration process, and at discharge points where post-neutralization has occurred, so that a proper and representative characterization of the waste stream can be made. *See Appendix H - Beykpour Email to David Stuck / Debra Schwartz dated October 20, 2014.*[11].

(iii) Arsenic Levels/Toxicity of Stored Sediment

When considering the long-term toxicity of the waste water stored within Arsenic Pond, CGR believes that it is critical for the Department to consider that the sample[12] collected from the sediment at the bottom of the pond did not exceed the Total Threshold Limit Concentration (TTLC) values. Furthermore, this analysis was verified by the analysis taken during the time the sediment was disposed of as characteristically non-hazardous *(See Appendix D- Sediment Analysis).*

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[10] On October 8, 2014, Page Beykpour and CGR's outside counsel, Chris Sanders, requested from David Stuck during a telephone conversation that "split samples" be delivered to CGR by the Department.

[11] 22 CFR 66261.20(c) requires generators to use SW-846 production when hazardous waste sampling and testing are performed. The Department's May 22, 2015 Complaint Investigation Report does cite the use of SW-846. On information and belief, DTSC has traditionally interpreted SW-846 to require a minimum of four samples for waste classification purposes.

[12] CGAP-02 – September 24, 2014

(iv) Stored Wastes Subject to Wind Dispersal

The SOV states in the fourth paragraph of violation #1 that: "These wastes are deposited uncovered in the open environment and are subject to wind dispersal." While it is true that the Arsenic Pond is uncovered and open to the surrounding environment, CGR would like to clarify that there is no evidence that any of the waste water or sediment waste that was contained within the pond had been dispersed by wind or other climatic condition.

C. Dispute / Clarification of Certain Narrative of Findings

CGR disputes and/or clarifies the Department's Complaint Investigation Report Narrative of Finding as follows:

- The Department states that it received a complaint by Robin Coale of the Water Board that CGR was discharging toxic constituents (arsenic, barium, cadmium, copper, molybdenum, vanadium and zinc) and corrosive liquids into three ponds (i.e., Arsenic Pond, Fire Pond, East Pond) at its Olancha facility (p.1).

  CGR would like to clarify that other than as particularly identified hereunder, analysis of samples taken of waste water at all three ponds by both the DTSC and Water Board did not show exceedances above regulatory limits.

- The Department identifies the Fire Pond overflow pipe discharging to a "wetlands" area east of the facility (p.2).

  CGR would like to clarify that this area is not a wetlands as defined under any federal and state law, regulation or policy. Furthermore, CGR has redirected the overflow from the Fire Pond to a parcel of land it owns located directly south of the Fire Pond. This land is barren and, therefore, any overflow onto this land does not pose any risk of damaging or degrading any waters of the state, protected animals and/or habitat, or wetland areas. CGR is currently working on determining the characteristics of all discharged waste steams from the Facility for a Report of Waste Discharge Application to the Water Board (due September 11, 2015).

- The Department states that based on the Water Board's investigation on March 1, 2013 it is understood that the Arsenic Pond "receives liquids laden with arsenic and a pH *reputed* to exceed 12.5 (pH 14)" (p.2).

  CGR believes that this inference was taken from statements made by Sebastien Guyard to the Water Board staff during the inspection. In particular, the Water Board cites that Mr. Guyard stated that "the discharge to the Arsenic Pond consists of regeneration back-flush water from the arsenic treatment system, with an average pH of 14 and an arsenic concentration in excess of 100,000 milligrams per liter (mg/L)"[13]. CGR posits that Mr. Guyard's statement was misunderstood due to language accent or simply resulted from error due to translation. When speaking, Mr. Guyard was referring to possible levels of pH and arsenic concentrations within the sand filter media, not the waste water being discharged to the Arsenic Pond. Notably, the waste water conveyed to the Arsenic Pond during the initial regeneration phase was being neutralized with sulfuric acid mixture. Furthermore, laboratory analysis of samples taken by both the DTSC and the Water establish that pH values and arsenic concentrations are significantly below the levels cited within Mr. Guyard's statement.

- The Department states that the Arsenic Pond liner had "observed holes up to one inch in diameter" (p.2).

  CGR would like to clarify that it is not aware of more than one hole in the liner. Furthermore, the one hole that was identified in the Water Board's Investigative Order[14] was observed along the slope in the southeast corner of the pond was above the water line and, therefore, did not pose any risk of leaching.

- In describing the distribution box apparatus and delivery system, the Department states that: "contamination in the line and box may possibly send Arsenic to the East Pond which is unlined and directly infiltrates to the lake bed and groundwater" (p. 3).

  CGR respectfully disputes this allegation. There are no known structural failures associated with the distribution box apparatus system, including but not limited to its piping, valves or steel structure, that point to the possibility of any contamination of the East Pond area. To the contrary, laboratory analysis of samples taken by both DTSC and the Water Board show no contamination of the East Pond has occurred. Notably, the DTSC's analysis[15] is non-detect for Arsenic. A sample[16] analyzed from the Water Board's inspection of the East Pond showed an arsenic concentration of 13.7 part per billion (ppb), however, CGR believes that this is attributable solely to the background levels of arsenic in the area and not CGR's waste water discharge practices from the Facility.

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[13] Investigative Order dated July 24, 2013 – p. 3

[14] Investigative Order dated July 24, 2014 – Photo 5, page 6.

[15] CGDB-03 – September 24, 2014

[16] Sample ID #1306195-03 - Water Board Inspection – March 1, 2013

- The Department states the distribution box features "very low tech valves" (p. 6). In corresponding "photo #8, Distribution Box" the presence of a "very rudimentary valve and lack of seal" is noted.

  CGR can only infer that these assertions were made to demonstrate (1) that the distribution box apparatus system is susceptible to failure and poses a risk of contamination to the East Pond, and (2) that CGR was somehow aware of this fact and was unconcerned about the consequences associated with such risk. While the distribution box apparatus system may appear rudimentary to DTSC inspection staff, CGR can attest that the system has functioned properly. The valves in question have completely sealed waste water flow from entering the East Pond when closed. Historically, during regeneration events, CGR staff have inspected the East Pond to confirm whether the waste water flow has completely been redirected. CGR has had no reason to believe that the distribution box apparatus is faulty or susceptible to failure. CGR's understanding is supported by the analytical data gathered by both DTSC and the Water Board.

- The Department cites CGR's Facility Waste Generation and Discharge Report to the Water Board wherein CGR identifies that the sand filter process and pond were installed in 2003 (p. 4).

  CGR presumes that the Department is citing this statement in order to establish as a possible start date of violations for purposes of calculating a multi-day penalty. CGR would like to clarify that this statement by itself does not establish when hazardous levels of arsenic were first discharged and/or stored within the Arsenic Pond, or when hazardous waste water was treated. The regeneration process has changed considerably over the years due to changes in production capabilities (i.e., increases in the output/speed of the lines, instantaneous flow needed, etc.). Therefore, there is no definitive way to conclude that hazardous waste was being discharged or stored prior to the DTSC's inspections.

- The Department indicates that at "next to the ceramic filter area are three tanks containing phosphoric acid, caustic soda and peptic acid" (p. 7).

  CGR is not aware of the storage or use of "peptic acid" onsite.

- In the section describing the drainage system for the sand filter units, the Department identifies that "outside of the building, and on the other side of the wall from the arsenic treatment system we noticed two approximate 8" diameter pipes coming out of the building approximately a foot and a half above ground level, draining into two approximately 14" diameter pipes." The Department postulates that this "out of the way, and out of sight location looks like a potential easy point for employees to dispose of hazardous chemicals into the Arsenic Pond or percolation pond, by simply pouring them through the screen and into the pipe."

CGR respectfully submits that these hypothetical comments are completely untrue. There was absolutely no evidence gathered during the DTSC and the Water Board's inspections that demonstrated that CGR or its employees have disposed of hazardous chemicals through this piping system. It bears note that only a select number of qualified / trained personnel are authorized to use and have access to chemicals onsite. All sensitive chemicals are stored in locked areas and maintained pursuant to applicable CUPA requirements.

- The Department identifies that six samples and field monitoring were collected during its October 17, 2014 inspection to evaluate the pH levels of the waste stream. Field monitoring using pH strips demonstrated that three of the six samples collected by DTSC from the waste water resulting from a regeneration event exceeded hazardous levels of waste limits of pH at 1.68 (distribution box at 0815 hrs), 12.62 (distribution box at 0940 hrs), and >13.0 (sand filter at 1140 hrs) respectively[17].

  CGR would like to clarify that these samples were all taken within the piping and apparatus system delivering the waste water to the Arsenic Pond and not at the discharge point. As an example, this is particularly important in the case of the sample taken at the sand filter was collected prior to neutralization with sulfuric acid. Notably, the sample taken at the outflow to the surface impoundment exhibited a pH level of 12.29[18]. Furthermore, it should be noted that all of the pH samples retrieved during the October 17, 2014 inspection exceeded the holding time prior to analysis. (*See Appendix M of the Department's Complaint Report*).

- Finally, as CGR notes above, and DTSC has previously acknowledged, that CGR expressly requested split samples at the time of the inspection September 24, 2014 so that CGR would have the ability to verify the laboratory analyses provided by DTSC. However, DTSC did not provide these split samples, which precluded CGR from verifying the results.

CGR remains committed to working with your Department in resolving all issues leading to the issuance of the SOV and coming into full regulatory compliance. The Company greatly appreciates your Department's assistance and efforts during this investigation. Thank you in advance for your consideration of the requests made herein and we look forward to our continued engagement with your Department in properly concluding this investigation.

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[17] CGGF-14, CGGF-16, and CGGF-17

[18] CGGF-15.

Sincerely,

Paige Beykpour
Chief Operations Officer
CG Roxane LLC

Enclosure(s)

cc:

Debra Schwartz – *Via Email & Certified Mail*
David Stuck – *Via Email & Certified Mail*
Christie Bautista – *Via Email & Certified Mail*
Glenn Forman - *Via Email & Certified Mail*
Norman Riley – *Via Email*
Chris Sanders – *Via Email*
Pedrom Ghafoori – *Via Email*
George Castaneda – *Via Email*
Sebastien Guyard – *Via Email*
Pierre Boulier – *Via Email*

Appendix A

CG Roxane's Letter on May 7, 2015

CG Roxane LLC

Crystal Geyser® Alpine Spring Water®, Bottled at the Source

SENT VIA CERTIFIED MAIL

May 7, 2015

Robert Kou
Branch Chief
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, California 91311

Dear Mr. Kou:

This letter is in regards to the Department of Toxic Substances Control's ("DTSC") pending inspection of CG Roxane's ("CGR" or "the Company") wastewater discharge practices at its Olancha, California bottled water facility ("Facility").

It was a pleasure meeting in person with you and your team on April 13, 2015. Pursuant to our discussions, we have summarized hereunder our request for your department's written concurrence regarding CGR's proposal (1) to neutralize regeneration effluent in an enclosed neutralizing tank under a permit by rule, and (2) the recondition of manganese dioxide sand contained within the sand filter units by exclusion.

A. SUMMARY OF ARSENIC (As) REMOVAL PROCESS

At the Facility, CGR bottles spring water using two production wells (CGR-2 and CGR-7). The Department of Public Health, Food and Drug Branch has permitted this Facility's operations, including the wells and the associate springs, to withdraw and bottle spring water.

The Facility contains two distinct buildings on the property—Olancha North and Olancha South. Each building contains three manufacturing lines (3, 5, 6 and 1, 2, 4, respectively).

Of particular note, the spring water at the property contains elevated levels of naturally occurring Arsenic ("*As*"). The background levels of *As* in the spring water sourced from CGR-2 and CGR-7 average 0.010 mg/l and 0.023 mg/l, respectively.

The Food and Drug Administration ("FDA") regulates bottled water as a food and has established specific regulations for quality under Title 21 of the Code of Federal Regulations (21 CFR). With respect to the sale of bottled water, these regulations establish a maximum contaminant level ("MCL") for *As* below 0.010

mg/l (10 ppb)[1]. In order to meet these allowable levels for *As* in its bottled water, CG Roxane uses several manganese dioxide (*MnO_2*) sand filter adsorption units that remove *As* from the spring water ("Sand Filter Units") while at the same time preserving the composition of the spring water. Two Sand Filter Units are used for Lines 3 and 5, one Sand Filter Unit is used for Line 6, and two Sand Filter Units are used for Lines 1, 2, and 4.

The Sand Filter Units adsorbing *As* become less efficient over time due to saturation of the sand. In an effort to restore the ability of the Sand Filter Units to adsorb *As*, CGR implements a treatment process whereby the *MnO_2* sand within each Sand Filter Unit is periodically reconditioned using an alkaline solution. The reconditioning process utilizes between one to four batches of 30% sodium hydroxide and water solution ("2% Caustic Soda Solution"), which is flushed through the Sand Filter Units in a backwash mode[2]. The Solution causes *As* to de-adsorb from the *MnO_2* sand. This entire back flush process generates approximately 11,000 – 20,000 gallons of aqueous[3] hazardous waste[4]. This wastewater was previously discharged to a single-lined onsite impoundment ("Arsenic Pond") after being neutralized in-process. A second phase involves the forward flushing of the Sand Filter Units with spring water for the purpose of reconditioning the *MnO_2* sand to a level where optimal adsorption occurs. This non-hazardous effluent was discharged to an onsite impoundment ("Percolation Pond").

Prior to the Department of Toxic Substances Control (DTSC) issuance of its Summary of Violations dated April 13, 2015, CG Roxane voluntarily ceased all its discharge of effluent to the Arsenic Pond. Instead, during the last regeneration that occurred in March 2015, the Company transported the resulting hazardous wastewater of approximately 11,000 gallons to an authorized waste facility using a registered third-party hauler and hazardous waste manifest (*See Appendix A – Hazardous Waste Manifest*). *See Appendix B - Depiction of Regeneration Process.*

B. PROPOSALS FOR EFFLUENT NEUTRALIZATION AND SULFURIC ACID SOLUTION RECONDITIONING OF SAND

1. Effluent Neutralization

As mentioned above, CG Roxane believes that the wastewater resulting from the Caustic Soda Solution backwash is hazardous for toxicity (i.e., *As* content) and/or

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[1] *See 21 CFR 165.110(b)(4)(iii)(A)*

[2] 3,750 to 7,500 gallons of solution per batch depending on the location of the Sand Filter Unit.

[3] Pursuant to 67450.11(b), "an aqueous waste is defined as a waste containing water, and less than or equal to one percent of suspended solids, as measured by Method 209C described in 'Standard Methods for Examination of Water and Wastewater," 16th Edition, published jointly by the American Public Health Association, the American Water Works Association, and the American Pollution Control Federation, 1985.'"

[4] As content > 5.0 mg/l and pH > 12.5

corrosivity (i.e., pH).

Prior to hauling the effluent off-site, CGR proposes to send the hazardous waste to a self-contained and closed system, 8,000-gallon neutralization tank (Neutralization Tank) connected to the Sand Filter Units within each building through pipes. The Neutralization Tank will be equipped with a circulation pump system and deliver the waste from the respective Sand Filter Units. A solution of 93% sulfuric acid water would be added to the Neutralization Tank. The wastewater delivered to the Neutralization Tank and the Acid Solution would be circulated within the Neutralization Tank and homogenized until a pH < 10 is achieved.[5] See *Appendix C - depiction of waste neutralization.*

CGR recognizes the general rule that DTSC requires a permit or other grant of authorization for treatment of hazardous waste[6]. However, the Company believes that this neutralization is allowed through permit by rule ("PBR").

Pursuant to 40 CFR 260.10, "a tank, tank system, container, transportation vehicle, or vessel" that meets the definition of an "elementary neutralization unit" or wastewater treatment unit in 40 CFR 260.10 is exempted from permitting requirements under 40 CFR 264.1(g)(6), 40 CFR 265.1(c)(10), and 40 CFR 270.1(c)(2)(v). California law offers no comparable permit exception, and therefore, these treatment units are subject to authorization requirements under Health and Safety Code section 25201 and corresponding regulations in 22 CCR 66264.1(b), 66265.1(b), and 66270.1(c). Notwithstanding the foregoing, however, pursuant to 22 CCR 66270.1(c)(1)(E), treatment of hazardous waste using a fixed treatment unit may be permitted by rule when specified conditions are met. Pursuant to 22 CCR 67470.11(a)(2)(A), "pH adjustment or neutralization" of aqueous wastes containing metals is an activity that may be permitted by rule.

CGR hereby respectfully requests DTSC's written concurrence that PBR applies to this neutralization process. Additionally, CGR will be seeking PBR approvals from Inyo County as well.

2. Sulfuric Acid Reconditioning of Manganese Sand

CGR believes that the injection of a sulfuric acid solution[7] to the Sand Filter Units after the Caustic Soda Solution backwash process will recondition the MnO_2 sand allowing for quicker *As* adsorption. It is believed that this reconditioning process will greatly reduce the overall water usage (and corresponding effluent discharge) for the forward flushing of the Sand Filter Units during the second phase of the regeneration process.

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[5] The wastewater will remain hazardous due to its *As* content.

[6] *See* HSC 25201

[7] CG Roxane intends to add 2 -5 gallons of 93% Sulfuric Acid - Water Solution to the Sand Filter Units.

Pursuant to 40 CFR 261.1(c)(4) and 22 CCR 66260.10 "a material is 'reclaimed' if it is processed to recover a usable product, or if it is regenerated." Pursuant to 40 CFR 261.4(a)(8) a "secondary material" that is "reclaimed" or "returned" to the original process or processes where they are reused are not solid wastes and therefore exempted from regulation provided that: (i) only tank storage is involved, and the entire process through completion of reclamation is a closed system which is connected for in-flow and out-flow by pipes; (ii) reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators); (iii) the secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and (iv) the reclaimed material is not used to produce fuel, or used to produce products that are used in a manner constituting disposal. This exclusion has been adopted by the DTSC under 22 CCR 66261.4(a)(5).

Since the Sand Filter Units are (i) entirely closed tank systems, and the entire process of sulfuric acid reconditioning is completed through circulating solution in and out of connected pipes, (ii) the reclamation process does not involve flame combustion, (iii) the *As* adsorbed *Mn* sand is never accumulated for a period of time over twelve months without being reclaimed through the reconditioning process; and (iv) the reclaimed material (i.e., *Mn* sand) is not used to produce products that are used in a manner constituting disposal; CGR believes that the reconditioning of the *Mn* sand is exempted from permit under 22 CCR 66261.4(a)(5)[8]. *See Appendix D - Depiction of Reconditioning Process.*

CGR hereby respectfully requests DTSC's written concurrence that the exception identified here applies to the sand reconditioning using an Acid Solution.

C. Conclusion

CGR remains committed to its full cooperation with the DTSC. It is of the utmost priority to the Company that it returns to compliance as soon as possible. As such, the Company decommissioned its use of the Arsenic Pond prior to the DTSC's Summary of Violations. Furthermore, CGR is currently looking into options for the removal of remaining aqueous and sludge waste within the Arsenic Pond, as well as the associated liner. Furthermore, CGR has, and will continue to utilize a third-party waste hauling company and authorized waste treatment and disposal facility until such time that a permanent solution, acceptable to DTSC, is reached for the storage and disposal of any hazardous waste resulting from the sand filter regeneration process.

As aforementioned, CGR will be seeking PBR approval from Inyo County for the tank neutralization process summarized above.

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[8] The exclusion under Sec. 66261.4(a)(5) is self-implementing. It is CG Roxane's understanding that it is not required to obtain DTSC's approval prior to commencing operation under such exclusion.

We would greatly appreciate your prompt response to our request for written concurrence. Should you have any questions, please do not hesitate to contact me directly at 415-339-8230, or alternatively, at 415-595-1212. Thank you for your attention to this matter.

Sincerely,

~~Page Beykpour~~
Chief Operations Officer

cc: David J. Stuck / DTSC
Christie Bautista / DTSC
Debra Schwartz / DTSC
Phillip Blum / DTSC
Glenn Forman / DTSC
Chris Sanders
Norm Riley
George Castaneda

APPENDIX B
Liquid Waste Manifests and Profile

A Non-Hazardous Waste Facility

Return to:
Email: profiling@starlitewaste.com
Fax: (909) 434-0618

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278
www.starlitewaste.com

GENERATOR'S WASTE MATERIAL PROFILE SHEET	PROFILE NUMBER
NEW ☒ RENEW ☐ AMENDED ☐	SR15-657

SRES Use Only: NR ☐ MS ☐ OS ☐ ORGS ☒

GENERATOR		BILL TO	
Name:	Crystal Geyser	Name:	UNITED PUMPING SERVICE, INC.
Address:	1210 US-395	Address:	14000 E. Valley Blvd.
City:	Olancha State: CA Zip: 93549	City:	Industry State: CA Zip: 91746
Contact:	George Castaneda Ph:	Contact:	Accts. Payable
E Mail:	760-764-1813	E Mail:	
Shipping Contact:	Ph:	Ph:	626/961-9326 Fax:

TRANSPORTER		TRANSPORTER	
Name:	United Pumping service	Contact:	Customer Service
Address:	14000 E. Valley Blvd.	Phone:	626/961-9326
City:	Industry State: CA Zip: 91746	Fax:	

WASTE DESCRIPTION – (Clarifier water, rain water, food process water, etc...)

Water Treatment

CHEMICAL & PHYSICAL STATE

Liquid ☒	Multi-layered ☐	Odor: None ☒	Mild ☐	Strong ☐
Semi-Liquid ☐	Bi-layered ☐	Color: Clear		
Solid ☐	Single Phase ☒	Flash Point: >200° F	Yes ☒	No ☐
pH		% of Solids: 10%		

pH		PROFILE HISTORY
☐ <2	☐ 8-10	Has this waste ever been shipped as a Haz waste? Yes ☐ No ☒
☐ 2-4	☐ 10-12	
☐ 4-6	☐ >12.5	If YES, explain:
☒ 6-8	☐ N/A	Is this waste defined as a Non-Hazardous waste? Yes ☒ No ☐

MANUFACTURING/PROCESS DESCRIPTION

Describe type of manufacturing/company and process generating waste stream. Include a list of virgin material and their Material Safety Data Sheets

Yearly Water Treatment Flush

CHEMICAL CONSTITUENTS

	%
Water	100 %
	%
	%

METALS (ppm)

Antimony	< 15	Chromium	< 560/5 liq.	Molybdenum	< 350
Arsenic	< 5.0	Cobalt	< 80	Nickel	< 20
Barium	< 100	Copper	<25	Selenium	<1.0
Beryllium	< 0.75	Lead	< 5.0	Silver	< 5.0
Cadmium	< 1.0	Mercury	<0.2	Thallium	< 7.0
Vanadium	< 24	Zinc	< 250		

SHIPPING INFORMATION

Shipping Method: Vector ☐ Vac Truck ☒ Dry Van ☐ Totes ☐ Drums ☐ Roll Off ☐ Volume (gallons/tons): 50,000

Generator's Self-Certification:

The following assessment of non-hazardous waste is based on personal and generator knowledge of the waste constituents and the process that generated the waste. In addition, I have reviewed the waste characteristics in accordance with the California Code of Regulation, Title 22 and the appropriate sections of 40 Code of Federal or State statutes as hazardous waste. I am self-certifying this waste as non-hazardous for the purpose of disposal in the State of California.
I have included with this generator self-certification a detailed description of the waste material and the generating process as well as all supporting documentation.
I certify that the information contained in this generator self-certification and the Non-Hazardous Waste Profile Data Sheet is true, correct and accurate, this date as indicated by my signature.

Signed on Behalf of Generator ☒
Print Name: A. Castellanos on behalf Crystal Geyser Authorized Signature: [signature] Date: 5/7/15

FOR SRES FACULTY ONLY

Notes:

Approved By: [signature] Title: CEO Date: 5/7/15

5/15

FIELD WORK ORDER

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

UNITED STORM WATER, Inc.
Protecting Our Water Resources

109357

SWO37234-1

Onsite Date: 05/14/15
Onsite Day: Thursday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46040
Customer PO No.:
Service Contract.:

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/13/15 115885

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S S Jesus Maimenrama	1	0300	0700	1600	2015				
G104A	VACUUM TRK-120 BBLS S S (OT) TRK# 264/T-16	1								
G708	TRANS & DISPOSE (PH11) upto 8% solids	1								
G702A	WASH OUT 5/15 DISPOSAL EDG # 240	1	0930	1030	1245	1345				

Manifest No	Disposal Site	Qty	Misc. Equipment
107967	STARLITE	1 X LOAD	1 X PPE

Printed Name: George Castaneda, Jr. Signature: [signature] Date: 05/14/15

T-6

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	
Manifest Document No.	
2. Page 1 of 1	107967

3. Generator's Name and Mailing Address
CRYSTAL GEYSER
1210 US-395
OLANCHA, CA

4. Generator's Phone ( )

5. Transporter 1 Company Name: UNITED PUMPING SERVICE, INC.
6. US EPA ID Number: CAD072953771
A. Transporter's Phone: 626 961-9326

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address
STARLITE RECLAMATION ENV. SERVICES
11225 MULBERRY AVE
FONTANA CA 92337

10. US EPA ID Number:
C. Facility's Phone: (800) 576-9278

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE LIQUID (WATER)	1	TT	4500	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
11A. SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
24-HR. EMERGENCY PH: 626/ 961-9326 WEAR APPROPRIATE PROTECTIVE EQUIPMENT
WO # 37234-1

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
George Castañeda Jr.	[signature]	05	14	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JESUS VALENZUELA	[signature]	05	14	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER #1

Starlite Reclamation Environmental Services Inc.
1-800-576-9278

Receiving Ticket # 8205
A Non Hazardous Waste Facility

Date: 5-15-15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: Totes: Drums: Other:

Waste Description: Non Haz waste Scale Only:

Profile Match: Yes ✓ No Rejected

Additional Generators:

Generator: Crystal Geyser Profile#: SR 15-657

Site Address: Manifest#: 107467

Vin#:

Transporter: United Pumping Washout Time in: 15 MAY 15 PM 12:28

Broker (if any) Washout Time Out:

Solids %: Oil %: Container: 15 MAY 15 PM 12:32

pH: 11.8 TDS: 1544 BOD: COD:

License: Truck: 240 Trailer: T 16

Weight Master: Pepe Paya (Print Name) (Signature)

Net Tons: X240 Gallons	Truck ID 8205 11:11 am 05/15/15 Weigh In 74960 lb Truck ID 8205 12:34 pm 05/15/15 Weigh Out Gross 74960 lb Tare 35460 lb Net 39500 lb

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

FIELD WORK ORDER

SWO37197-1

UNITED STORM WATER, Inc.
Protecting Our Water Resources

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

109229

Onsite Date: 05/11/15
Onsite Day: Monday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46003
Customer PO No.:
Service Contract:

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/08/15 115757

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD

Sup. Sig. and Print Name

Job Site Location:

Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S.	1								
	JESUS BAMERRANA		0200	0700	MS					
G104A	VACUUM TRK-120 BBLS S.S.(OT)	1								
	TRK# 265/T-16			1730	1815	1920				
G706	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

(Down time
10:30 – 1145)

UNITED

Manifest No.	Disposal Site	Qty	Misc. Equipment
112300	STARLITE ENVIROMENTAL	1X LOAD	1XPPE

Printed Name: George Castaneda Signature: Geo J Castaneda Date 05/11/2015

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 35 days and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

www.unitedstormwater.com

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	Manifest Document No. 112300	2. Page 1 of 1	112300

3. Generator's Name and Mailing Address
Crystal Geyser
1210 US Hwy. 395
Olancha, CA. 93549

4. Generator's Phone ( ) 760-764-1813

5. Transporter 1 Company Name: United Pumping Service, Inc.	6. US EPA ID Number: CAD072953771	A. Transporter's Phone: 626/961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address: Starlite Reclamation Services, 11225 Mulberry Ave. Fontana, CA. 92337	10. US EPA ID Number	C. Facility's Phone: 909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	4800	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
11a.#SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326
Wear Proper PPE
WO# SW037197-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda	[signature]	05	11	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Jesus Maninuama	[signature]	05	11	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	[signature]	5	11	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC. 1-800-576-9278

Receiving Ticket # 8077

A Non Hazardous Waste Facility

Date: 5-11-15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: ______ Totes: ______ Drums: ______ Other: ______

Waste Description: Non haz liquid Scale Only: ______

Profile Match: Yes ✓ No ______ Rejected ______

Additional Generators: ______

Generator: Crystal Geyser Profile#: SR15-657

Site Address: 1210 US Hwy. 395 Manifest#: 117300

Olancha, CA 93549 Vin#: ______

Transporter: United pumping Washout Time in: '15 MAY 11 PM6:05

Broker (if any) ______ Washout Time Out: '15 MAY 11 PM6:09

Solids %: Ø Oil %: Ø Container: ______

pH: 10.9 TDS: 165.5 ppm BOD: ______ COD: 192.3 ppm

License: Truck: 265 Trailer: T16

Weight Master: Hector lopez (Print Name) Hector Lopez (Signature)

Net Tons: ______ X240 ______ Gallons	Truck ID 8077 05:34 pm 05/11/15 Weigh In 74780 lb Truck ID 8077 06:10 pm 05/11/15 Weigh Out Gross 74780 lb Tare 36960 lb Net 37820 lb

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

4/4

FIELD WORK ORDER

SWO37207-1

UNITED STORM WATER, Inc.
Protecting Our Water Resources

14000 East Valley Blvd. · City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

109268

115-Fy

Onsite Date: 05/12/15
Onsite Day: Tuesday
Onsite Time: 0800
Account No.: CRYGEY10000
Quote No.: SWQ46013

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/11/15

Customer PO No.: ____________
Service Contract: ____________

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name ____________

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name **RAMON MENJIVAR**
Cell Phone **626-890-7104**

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S.	1								
	Daniel Hurtado 246-T-17		0315	0800	1030	1830				
G104A	VACUUM TRK-120 BBLS S.S (OT)	1								
				1600	1715	1820				
G708	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

Manifest No.	Disposal Site	Qty	Misc. Equipment
113103	Starlighte	5,000G	

Printed Name: Pierre Boulier Signature: [signature] Date: 05/12/2015

113103

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No,	Manifest Document No. 113103	2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address
Crystal Geyser
1210 US Hwy. 395
Olancha, CA. 93549

4. Generator's Phone ( ) 760/764-1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
United Pumping Service, Inc.	CAD072953771	626/961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Starlite reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337		909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	5000	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above	E. Handling Codes for Wastes Listed Above
11a. #SR15-657	

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326 SWO# 37207-1
Wear Proper PPE

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
Pierre Bovelia	[signature]	05	12	15

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Daniel Hurtado	[signature]	05	15	

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

FACILITY

19. Discrepeancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector lopez	[signature]	5	12	15

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
800-576-9278

Receiving Ticket # 8110

A Non Hazardous Waste Facility

Weighed at:

Date: 5-12-15

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: ____ Totes: ____ Drums: ____ Other: ____

Waste Description: Non haz liquid Scale Only: ____

Profile Match: Yes ✓ No ____ Rejected ____

Additional Generators: ____

Generator: Crystal Geyser Profile#: SR15-657

Site Address: 1210 US Hwy. 395 Olancha, CA, 93549 Manifest#: 113103

Vin#: ____

Transporter: United pumping Washout Time in: 15 MAY 12 PM5:04

Broker (if any) ____ Washout Time Out: 15 MAY 12 PM5:17

Solids %: 25% Oil %: 0 Container: ____

pH: 10.9 TDS: 1660 BOD: ____ COD: 190.9

License: Truck: 246 Trailer: T17

Weight Master: Hector lopez (Print Name) Hector lopez (Signature)

Net Tons: ____ X240 ____ Gallons	Truck ID 8110 04:05 pm 05/12/15 Weigh In 75780 lb Truck ID 8110 05:13 pm 05/12/15 Weigh Out Gross 75780 lb Tare 37340 lb Net 38440 lb

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

JB

FIELD WORK ORDER

SWO37206-1

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

109267

UNITED STORM WATER, Inc.
Protecting Our Water Resources

Onsite Date: 05/12/15
Onsite Day: Tuesday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46012

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/11/15 115795

Customer PO No.: ______
Service Contract.: ______

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name ______

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose
. See George Castaneda onsite

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104 2	VACUUM TRK-120 BBLS S.S. Jesus Balderrama	1	0300	0700	0945					
G104A	VACUUM TRK-120 BBLS S.S.(OT) TRK# 256 / T-10	1								
G706	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1	1520	1630	1800					

UNITED

Manifest No.	Disposal Site	Qty	Misc. Equipment
113104	STARLITE ENVIROMENTAL	~~[illegible]~~ 1 X LOAD	1 X PIPE

Printed Name: Kevin Boulier Signature: ______ Date 05/12/2015

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 35 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

www.unitedstormwater.com

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No,	Manifest Document No. 113104	2. Page 1 of 1	113104

3. Generator's Name and Mailing Address: Crystal Geyser, 1210 US Hwy. 395, Olancha, CA. 93549

4. Generator's Phone ( ) 760/764-1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
United Pumping Service, Inc.	CAD072953771	626/961-9326
7. Transporter 2 Company Name	**8. US EPA ID Number**	**B. Transporter's Phone**
9. Designated Facility Name and Site Address	**10. US EPA ID Number**	**C. Facility's Phone**
Starlite Reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337		909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	4800	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
11a. SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326
Wear Proper PPE
WO#37206-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month Day Year
Pyrun Boulia	[signature]	05 12 15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month Day Year
Jesus Baldenrama	[signature]	05 12 15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month Day Year
Hector Lopez	[signature]	5 12 15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC. 1-800-576-9278

Receiving Ticket # 8107
A Non Hazardous Waste Facility

Weighed at:

Date: 5/12/15

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: _______ Bulk Solids: _______ Totes: _______ Drums: _______ Other: _______

Waste Description: Non Haz waste Scale Only: _______

Profile Match: Yes ✓ No _______ Rejected _______

Additional Generators: _______

Generator: Crystal Geyser Profile#: SRP-657

Site Address: _______ Manifest#: 113104

Vin#: _______

Transporter: United Pumping

Washout Time in: '15 MAY 12 PM 4:16

Broker (if any) _______

Washout Time Out: '15 MAY 12 PM 4:20

Solids %: 10% Oil %: 0 Container: _______

pH: 6.8 TDS: 1017 ppm BOD: _______ COD: 1185.2 ppm

License: Truck: 265 Trailer: T16

Weight Master: Hector Lopez (Print Name) Hector Lopez (Signature)

Net Tons: _______

X240 _______ Gallons

Truck ID 8107
03:22 pm 05/12/15
Weigh In 76020 lb

Truck ID 8107
04:24 pm 05/12/15
Weigh Out
Gross 76020 lb
Tare 36740 lb
Net 39280 lb

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

FIELD WORK ORDER

SWO37215-1

109308

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

UNITED STORM WATER, Inc.
Protecting Our Water Resources

Onsite Date: 05/13/15
Onsite Day: Wednesday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46021

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/12/15 715834

Customer PO No.: ______
Service Contract.: ______

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name ______

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O. T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S. Jesus Manzanares	1	0200	0600	1015					
G104A	VACUUM TRK-120 BBLS S.S.(OT) TRK# 246-T-16	1		1545	1650	1815				
G708	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

Manifest No.	Disposal Site	Qty	Misc. Equipment
113105	STARLITE	1XLOAD	1XPPE

Printed Name: George Castaneda, Jr Signature: Geo J Castaneda Jr. Date: 05/13/15

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No,	Manifest Document No. 113105	2. Page 1 of 1	113105

3. Generator's Name and Mailing Address
Crystal Geyser
1210 US Hyw. 395
Olancha, CA. 93549

4. Generator's Phone ( ) 760/764-1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
United Pumping Service, Inc.	CAD072953771	626/961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Starlite Reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337		909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	4.8W	G
b.				
c.				
d.				

GENERATOR

D. Additional Description for Materials Listed Above
11a. #SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326
Wear Proper PPE
W# SW# 37215-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castañeda Jr	[signature]	05	13	15

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Jesus Balderrama	[signature]	05	13	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

FACILITY

19. Discrepeancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	[signature]	5	13	15

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278

Receiving Ticket # 8149
A Non Hazardous Waste Facility

Date: 5-13-15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: ____ Totes: ____ Drums: ____ Other: ____

Waste Description: Non haz liquid Scale Only: ____

Profile Match: Yes ✓ No ____ Rejected ____

Additional Generators: ____

Generator: Crystal Geyser Profile#: SR15-657

Site Address: ____ Manifest#: 113105

Vin#: ____

Transporter: United pumping Washout Time in: 15 MAY 13 PM4:38

Broker (if any) ____ Washout Time Out: 15 MAY 13 PM4:49

Solids %: 25% Oil %: Ø Container: ____

pH: 11.0 TDS: 1160.3 ppm BOD: ____ COD: 184.3 ppm

License: Truck: 246 Trailer: T16

Weight Master: Hector lopez (Print Name) Hector Lopez (Signature)

Net Tons: ____

X240 ____ Gallons

Truck ID 8149
03:51 pm 05/13/15
Weigh In 60740 lb

Truck ID 8149
04:46 pm 05/13/15
Weigh Out
Gross 60740 lb
Tare 35980 lb
Net 24760 lb

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

FIELD WORK ORDER

SWO37216-1

UNITED STORM WATER, Inc.
Protecting Our Water Resources
14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

109309

Onsite Date: 05/13/15
Onsite Day: Wednesday
Onsite Time:
Account No.: CRYGEY10000
Quote No.: SWQ46022

Payment Terms Code NET30
Salesperson Code: RAM
Date: 05/12/15 115838

Customer PO No.:
Service Contract.:

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S. H. Gutierrez 247 T-17	1	0200	0630	0845					
G104A	VACUUM TRK-120 BBLS S.S.(OT)	1	1315	1445	1600					
G708	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

Manifest No.	Disposal Site	Qty	Misc. Equipment
113108	Starlite	4500 G.	Gloves 1 pr

Printed Name: George Castaneda Signature: Geo J Castaneda Jr. Date 05/13/15

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 35 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	
Manifest Document No.	113106
2. Page 1 of	1
	113106
3. Generator's Name and Mailing Address	Crystal Geyser 1210 US Hwy. 395 Olancha, CA. 93549
4. Generator's Phone ( )	760/764-1813
5. Transporter 1 Company Name	United Pumping Service, Inc.
6. US EPA ID Number	CAD072953771
A. Transporter's Phone	626/961-9326
7. Transporter 2 Company Name	
8. US EPA ID Number	
B. Transporter's Phone	
9. Designated Facility Name and Site Address	Starlite Reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337
10. US EPA ID Number	
C. Facility's Phone	909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1.	TT	4.5.0.0	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above

11a. #SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact 626/961-9326
Wear Proper PPE wc 37216

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda	[signature]	05	13	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Horacio Quintero	[signature]	05	13	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	[signature]	5	13	15

TRANSPORTER #1

United Camping

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC. 1-800-576-9278

Receiving Ticket # 8139

A Non Hazardous Waste Facility

Date: 5/13/15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids:_______ Totes:_______ Drums:_______ Other:_______

Waste Description: Non haz waste Scale Only:_______

Profile Match: Yes ✓ No_______ Rejected _______

Additional Generators: _______

Generator: Crystal Grape Profile#: SR 15-657

Site Address: _______ Manifest#: 113166

Vin#: _______

Transporter: United Pump Washout Time in: '15 MAY 13 PM2:30

Broker (if any) _______ Washout Time Out: '15 MAY 13 PM2:37

Solids %: 25% Oil %: 0 Container: _______

pH: 11.00 TDS: 162.2 BOD: _______ COD: 186.5

License: Truck: 247 Trailer: T17

Weight Master: Hector Lopez (Print Name) Hector Lopez (Signature)

Net Tons:_______ X240_______Gallons	Truck ID 8139 01:42 pm 05/13/15 Weigh In 51720 lb Truck ID 8139 02:36 pm 05/13/15 Weigh Out Gross 51720 lb Tare 36720 lb Net 15000 lb

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

APPENDIX C
Sediment Waste Manifests and Profile

SOUTH YUMA COUNTY LANDFILL

EPA#AZR000506980 A CERCLA APPROVED FACILITY
19536 S. AVE 1E, YUMA, AZ 85366
(928) 341-9300 Fax: (928) 341-8454
Website: syclandfill.com

GENERATOR WASTE PROFILE SHEET

WASTE PROFILE # C-3159

PLEASE COMPLETE ALL SECTIONS

I. GENERATOR INFORMATION

DATE: 5/22/15

GENERATOR NAME: CG ROXANNE LLC			
GENERATOR SITE ADDRESS: 1210 Hwy 395			
CITY: Olancha	COUNTY:	STATE: CA	ZIP: 93549
GENERATOR MAILING ADDRESS: SAME			
CITY:	COUNTY:	STATE:	ZIP:
GENERATOR CONTACT NAME: Tony Moore			
PHONE NUMBER: 760/764=1813	FAX NUMBER:	Email:	

II. TRANSPORTER INFORMATION

TRANSPORTER NAME: United Pumping Service, Inc.	Contact Name: Art/Ramon		
TRANSPORTER ADDRESS: 14000 E. Valley Blvd.			
CITY: Industry	COUNTY:	STATE: CA	ZIP: 91746
TRANSPORTER CONTACT NAME:			
PHONE NUMBER: 626/961-9326	FAX NUMBER:	Email:	

III FINANCIAL RESPONSIBILITY (Billing Information)

NAME OF OWNER, PARTNER(S) OR CORPORATE OFFICER(S)			
NAME: United Pumping Service	TITLE:	CELL#:	E-MAIL
BILLING ADDRESS: 14000 e. Valley	ADDRESS #2:	CITY Industry	STATE & ZIP 91746

IV. WASTE STREAM INFORMATION

NAME OF WASTE: Soil/sediments

PROCESS GENERATING WASTE: Pond cleaning from waste water treatment

TYPE OF WASTE: ☒ INDUSTRIAL ☐ POLLUTION CONTROL WASTE ☐ OTHER

PHYSICAL STATE: ☒ SOLID ☐ SEMI-SOLID ☐ LIQUID ☐ OTHER:

METHOD OF SHIPMENT: ☒ BULK ☐ DRUM ☐ BAGGED ☐ TOTES ☐ OTHER:

ESTIMATED ANNUAL QUANTITY: 75 ☒ CUBIC YARDS ☐ TONS ☐ GALLONS ☐ OTHER:

FREQUENCY: ☐ ONE TIME ONLY ☐ WEEKLY ☐ MONTHLY ☒ OTHER:

SPECIAL HANDLING INSTRUCTIONS: Gloves, eye protection

V. PHYSICAL CHARACTERISTICS OF WASTE

	CHARACTERISTIC COMPONENTS	% BY WEIGHT (RANGE)
1.	Soil	90%
2.	Sediment	10%
3.		
4.		

V. Continued

WASTE PROFILE #

Color	Odor (describe)	Liquids	% Solid	Ph:	Flash Point:
Bwn	None	YES NO X	100	Solid	200

VI. WASTE CHARACTERIZATION

Is there asbestos-containing material in the waste as defined by 40 CFR 61.141? If yes, ☐ Friable ☐ Nonfriable	YES	X NO
Is the waste petroleum contaminated soil as defined in ARS 49-851.A.3? If yes, is supporting analytical data attached for BTEX compounds (Method 8260) and PAH compounds (Method 8310)? ☐ Yes ☐ No	YES	NO X
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCB's) as defined in 40 CFR 761?	YES	X NO
Does this waste contain radioactive materials as defined by ARS 49-701.01(B)(2)?	YES	X NO
Is the waste a biohazardous medical waste as defined by AAC R18-13-1401(5)?	YES	X NO
Is the waste used oil as defined by 40 CFR 279.1, not subject to an exemption listed in 40 CFR 279.10?	YES	X NO
Is this waste generated at a Federal Superfund clean-up site?	YES	X NO
Is the waste exempt from hazardous waste regulations as from a source listed in 40 CFR 261.4(b)? Examples include waste from households; fossil fuel combustion waste; oil, gas, and geothermal wastes; mining and mineral processing wastes; trivalent chromium wastes; cement kiln dust; arsenically treated wood; petroleum contaminated media & debris from underground storage tank cleanup; and used oil filters.	YES	NO X
Has the waste been generated from a common manufacturing or industrial practice listed in 40 CFR 261.31 (F-list)? Examples include spent solvents, wastes from electroplating and metal finishing, dioxin-bearing wastes, chlorinated aliphatic hydrocarbon wastes, certain wood preserving wastes, and petroleum refinery wastewater treatment sludges.	YES	NO X
Has the waste been generated from a specific manufacturing or industrial process listed in 40 CFR 261.32 (K-list)? Examples include certain wastes from wood preservation, manufacturing organic, inorganic, and pesticide chemicals, petroleum refining, manufacturing of certain pigments, explosives, iron, steel, aluminum, and primary aluminum production, ink formulation, and coal coking wastes.	YES	NO X
Does the waste contain a pure or commercial grade formulation of an unused chemical product listed in 40 CFR 261.33 (P and U lists)?	YES	NO X
Is the waste an ignitable waste as defined by 40 CFR 261.21? Examples include liquids with a flashpoint above 140 ∘F, DOT designated oxidizers, and wastes that can spontaneously catch fire under normal handling conditions.	YES	NO X
Is the waste a corrosive liquid as defined by 40 CFR 261.22? Corrosive wastes commonly have a pH of less than 2 or greater than 12.5.	YES	X NO
Is the waste a reactive waste as defined by 30 CFR 261.23? Examples include wastes that can explode, violently react, or generate hazardous fumes, when exposed to water or under normal handling conditions, generates sulfide or cyanide gas when exposed to pH<2 or >12.5 conditions.	YES	NO X
Is the waste a toxic waste as defined by 40 CFR 261.24?	YES	NO X

VII. BASIS OF DETERMINATION (Check one or both)

☐ Generator knowledge. The generator has applied knowledge of the hazardous characteristics of the waste in light of the materials or the processes used in generating the waste as described in section IV and consistent with 40 CFR 262.11(c)(2). Attach MSDS sheets, as appropriate.

☒ Analytical data. A representative sample as defined in 40 CFR 260.10 has been collected consistent with 40 CFR 261.20(c) or an equivalent method and tested consistent with 40 CFR 262.11(c)(1) with results attached. Liquid wastes require analytical data.

VIII. GENERATOR CERTIFICATION

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the waste material being offered for disposal. I have made reasonable efforts to ensure that wastes collected from third parties have been appropriately screened and accurately characterized for waste types that are unacceptable at South Yuma County Landfill. I further certify that by utilizing this profile, neither I nor any other employees of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as hazardous waste, medical or infectious waste, or any other waste material South Yuma County Landfill is not permitted to accept. Our company hereby agrees to fully indemnify South Yuma County Landfill against any damages resulting from this certification being inaccurate or untrue.

A. Castellanos on behalf C6 Roxanne
AUTHORIZED REPRESENTATIVE NAME & TITLE (PRINTED)

United Pumping
COMPANY NAME

[signature]
AUTHORIZED REPRESENTATIVE SIGNATURE

5/25/15
DATE

IX. SOUTH YUMA COUNTY LANDFILL DECISION

__REJECTED ___APPROVED RATE_____ EXPIRATION__________

CONDITIONS:

APPROVER SIGNATURE DATE APPROVER SIGNATURE DATE

YUMA - [illegible]

SOUTH YUMA COUNTY LANDFILL

AUTHORIZATION FOR THIRD-PARTY WASTE PROFILING

Date: 5/22/15

Note: This Authorization is only valid for 3 years from the above date.

To Whom It May Concern:

Please be advised that the following company/individual has been appointed to work as our agent for purposes of managing waste materials that we may generate.

Name of Authorized Agent	Title
RAMON MENJIVAR	SALES
Name of Authorized Company	**Telephone Number**
UNITED PUMPING SERV.	626-961-9326

The above broker/individual is authorized to act as our authorized agent for the following purposes:

- [x] Profile waste characteristics of specific wastes generated by us and complete and certify Generator Waste Profile Sheets.
- [ ] Sign contracts to dispose and/or transport material.
- [ ] Provide supplemental information and sign certifications necessary to comply with South Yuma County Landfill profile approval requirements.
- [x] Sign manifests to initiate shipment to disposal facilities.

I agree to provide the authorized agent with any specific generator knowledge of processes generating waste as is necessary for the agent to adequately profile generated wastes. Our authorized agent will notify us prior to any action stated above, and will provide us with copies of any documents bearing our name.

Name of Company Generating Waste	Mailing Address
CG Roxane LLC	PO Drawer 'A'
Generator Contact (Print Name)	**Title**
George Castañeda, Jr	Corp Quality Control Manager
Signature	**Telephone Number**
Geo Castañeda, Jr.	760 764-1813

17860 DW-628 (R)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	113344

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549
4. Generator's Phone (760) 764 . 1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
UNITED PUMPING SERVICE, INC.	CAD072953771	626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85366	10. US EPA ID Number AZR000506980	C. Facility's Phone 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	1	CM	18	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3169

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326
WO 37385-2

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
X George Castaneda, Jr	X Geo/Castaneda J	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
JORGE RIVAS	Jorge Rivas	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	05	15

GENERATOR TRANSPORTER FACILITY

TRANSPORTER #1

DW-603 (F) 345 1125170

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	113343

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764-1813

5. Transporter 1 Company Name: UNITED PUMPING SERVICE, INC.	6. US EPA ID Number: CAD072953771	A. Transporter's Phone: 626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address: SOUTH YUMA COUNTY LANDFILL, 19536 S. AVE. 1E, YUMA AZ 85366	10. US EPA ID Number: AZR000506980	C. Facility's Phone: 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	1	CM	18	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326
WO 37385.1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda, Jr	Geo Castaneda	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
JORGE RIVAS	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	05	15

TRANSPORTER #1

DW-639

1125172

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No,	Manifest Document No.	2. Page 1 of 1	113346

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764.1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
UNITED PUMPING SERVICE, INC.	CAD072953771	626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85366	AZR000506980	928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	01	DM	015	Y
b.				
c.				
d. 15 15				

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT WO 0373853
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda J	Geo J Castaneda	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Juan Cortez	Juan Cortez	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	08	15

GENERATOR TRANSPORTER FACILITY

TRANSPORTER #1

DW 640   254

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	Manifest Document No.	2. Page 1 of 1	113345

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

Yuma AZ   645

4. Generator's Phone (760) 764 1813

5. Transporter 1 Company Name UNITED PUMPING SERVICE, INC.	6. US EPA ID Number CAD072953771	A. Transporter's Phone 626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85366	10. US EPA ID Number AZR000506980	C. Facility's Phone 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	01	CM	015	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT   WO 037385-3
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda, Jr	[signature]	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Juan Cortez	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepeancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	08	15

TRANSPORTER #1

DW-646 TKI-1103141

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,

Manifest Document No.

2. Page 1 of 1

113347

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764 1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
UNITED PUMPING SERVICE, INC	CAD072953771	626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85366	AZR000506980	928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	001	CM	00018	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3169

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

WO 37385-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda, Jr	[signature]	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Gaston Guitron	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	[signature]	06	08	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #2

DW-624

TDK-255

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	Manifest Document No.	2. Page 1 of 1	113342

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764.1813

5. Transporter 1 Company Name: UNITED PUMPING SERVICE, INC.	6. US EPA ID Number: CAD072953771	A. Transporter's Phone: 626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address: SOUTH YUMA COUNTY LANDFILL, 19536 S. AVE. 1E, YUMA AZ 85366	10. US EPA ID Number: AZR000506980	C. Facility's Phone: 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	0.01	CM	0.0.18	Y
b.				
c.				
d.				

GENERATOR

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

WO 37385

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda Jr	[signature]	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Carlos Guitron	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

TRANSPORTER

19. Discrepancy Indication Space

LICENSED PUBLIC WEIGHMASTER ROBERT LEE OGBURN JR. 19087 STATE OF ARIZONA DEPT. OF WEIGHTS & MEASURES

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	08	15

FACILITY

TRANSPORTER #1

APPENDIX D
Sediment Analytical Lab Report

POSITIVE
LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

May 21, 2015

Mr. Ramon Menjivar
United Storm Water, Inc.
14000 E. Valley Blvd.
City of Industry, CA 91746

Report No.: 1505154
Project Name: Crystal Geyser

Dear Mr. Ramon Menjivar,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on May 14, 2015.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

D Sanchez
Project Manager

POSITIVE LAB SERVICE
781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

United Storm Water, Inc.
14000 E. Valley Blvd.
City of Industry, CA 91746

File #:75095
Report Date: 05/21/15
Submitted: 05/14/15
PLS Report No.: 1505154

Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

Project: Crystal Geyser

Sample ID: Olancha Soil (1505154-01) Sampled:05/13/15 00:00 Received:05/14/15 14:40

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method		Prepared	Analyzed	By	Batch
Dichlorodifluoromethane (FC-12)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Chloromethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Vinyl chloride (Chloroethylene)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Bromomethane (Methyl bromide)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Chloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Trichlorofluoromethane (FC-11)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Acetone	ND		1	ug/kg	80.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Carbon disulfide	ND		1	ug/kg	40.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,1-Dichloroethene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Methylene chloride (Dichloromethane)	ND		1	ug/kg	20.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
trans-1,2-Dichloroethene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Methyl tert-butyl ether (MTBE)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,1-Dichloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Vinyl acetate	ND		1	ug/kg	40.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
2,2-Dichloropropane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
cis-1,2-Dichloroethene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
2-Butanone (MEK)	ND		1	ug/kg	40.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Bromochloromethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Chloroform	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,1,1-Trichloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Carbon tetrachloride	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,1-Dichloropropene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Benzene	ND		1	ug/kg	2.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2-Dichloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Trichloroethene (TCE)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2-Dichloropropane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Dibromomethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,4-Dioxane	ND		1	ug/kg	80.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Bromodichloromethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
2-Chloroethyl vinyl ether	ND		1	ug/kg	40.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
cis-1,3-Dichloropropene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
4-Methyl-2-pentanone (MIBK)	ND		1	ug/kg	40.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Toluene	ND		1	ug/kg	2.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
trans-1,3-Dichloropropene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,1,2-Trichloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Tetrachloroethene (PCE)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,3-Dichloropropane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
2-Hexanone (MBK)	ND		1	ug/kg	40.0	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Dibromochloromethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2-Dibromoethane (EDB)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Chlorobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,1,1,2-Tetrachloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Ethylbenzene	ND		1	ug/kg	2.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
m,p-Xylene	ND		1	ug/kg	2.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
o-Xylene	ND		1	ug/kg	2.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Styrene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Bromoform (Tribromomethane)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Isopropylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Bromobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912

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Certificate of Analysis

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City of Industry, CA 91746

File #:75095
Report Date: 05/21/15
Submitted: 05/14/15
PLS Report No.: 1505154

Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

Project: Crystal Geyser

Sample ID: Olancha Soil (1505154-01) Sampled:05/13/15 00:00 Received:05/14/15 14:40

Analyte	Results	Flag	D.F.	Units	PQL	Prep Method	Test Method	Prepared	Analyzed	By	Batch
1,1,2,2-Tetrachloroethane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2,3-Trichloropropane	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
n-Propylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
2-Chlorotoluene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
4-Chlorotoluene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,3,5-Trimethylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
tert-Butylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2,4-Trimethylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
sec-Butylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,3-Dichlorobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
4-Isopropyltoluene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,4-Dichlorobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2-Dichlorobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
n-Butylbenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2,4-Trichlorobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Hexachlorobutadiene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Naphthalene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
1,2,3-Trichlorobenzene	ND		1	ug/kg	4.00	EPA 5030B	EPA 8260B	05/18/15	05/18/15	mb	BE51912
Surrogate: Dibromofluoromethane	*50.5 %*	*M*		*67-123*		*EPA 5030B*	*EPA 8260B*	*05/18/15*	*05/18/15*	*mb*	*BE51912*
Surrogate: Toluene-d8	*90.6 %*			*80-120*		*EPA 5030B*	*EPA 8260B*	*05/18/15*	*05/18/15*	*mb*	*BE51912*
Surrogate: 4-Bromofluorobenzene	*101 %*			*80-120*		*EPA 5030B*	*EPA 8260B*	*05/18/15*	*05/18/15*	*mb*	*BE51912*

Analyte	Results	Flag	D.F.	Units	PQL	Prep Method	Test Method	Prepared	Analyzed	By	Batch
Naphthalene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
2-Methylnaphthalene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Acenaphthylene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Acenaphthene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Fluorene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Phenanthrene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Anthracene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Fluoranthene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Pyrene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Benzo (a) anthracene (1,2-Benzanthracene)	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Chrysene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Benzo (b) fluoranthene (3,4-Benzofluoranthene)	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Benzo (k) fluoranthene (11,12-Benzofluoranthene)	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Benzo (a) pyrene (3,4-Benzopyrene)	ND		1	ug/kg	400	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Indeno (1,2,3-cd) pyrene	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Dibenzo(a,h)anthracene (1,2,5,6-Dibenzanthracene)	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Benzo (g,h,i) perylene (1,12-Benzoperylene)	ND		1	ug/kg	800	EPA 3550C	EPA 8270C	05/15/15	05/15/15	ai	BE51832
Surrogate: Nitrobenzene-d5	*68.8 %*			*46-110*		*EPA 3550C*	*EPA 8270C*	*05/15/15*	*05/15/15*	*ai*	*BE51832*
Surrogate: 2-Fluorobiphenyl	*86.8 %*			*49-108*		*EPA 3550C*	*EPA 8270C*	*05/15/15*	*05/15/15*	*ai*	*BE51832*
Surrogate: Terphenyl-dl4	*132 %*			*58-135*		*EPA 3550C*	*EPA 8270C*	*05/15/15*	*05/15/15*	*ai*	*BE51832*

Analyte	Results	Flag	D.F.	Units	PQL	Prep Method	Test Method	Prepared	Analyzed	By	Batch
Arsenic	**11.6**		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126

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File #:75095
Report Date: 05/21/15
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Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

Project: Crystal Geyser

Sample ID: Olancha Soil (1505154-01) Sampled:05/13/15 00:00 Received:05/14/15 14:40

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method		Prepared	Analyzed	By	Batch
Barium	**22.3**		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126
Cadmium	ND		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126
Chromium	**5.14**		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126
Lead	**2.18**		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126
Selenium	**1.38**		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126
Silver	ND		1	mg/kg	1.00	EPA 3050B	EPA 6010B	05/20/15	05/21/15	CG	BE52126
Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method		Prepared	Analyzed	By	Batch
Mercury	ND		1	mg/kg	0.100	EPA 7471A	EPA 7471A	05/15/15	05/15/15	cg	BE51847

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Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

Project: Crystal Geyser

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BE51912 - EPA 5030B										
Blank Prepared & Analyzed: 05/18/15										
Dichlorodifluoromethane (FC-12)	ND	4.00	ug/kg							
Chloromethane	ND	4.00	ug/kg							
Vinyl chloride (Chloroethylene)	ND	4.00	ug/kg							
Bromomethane (Methyl bromide)	ND	4.00	ug/kg							
Chloroethane	ND	4.00	ug/kg							
Trichlorofluoromethane (FC-11)	ND	4.00	ug/kg							
Acetone	ND	80.0	ug/kg							
Carbon disulfide	ND	40.0	ug/kg							
1,1-Dichloroethene	ND	4.00	ug/kg							
Methylene chloride (Dichloromethane)	ND	20.0	ug/kg							
trans-1,2-Dichloroethene	ND	4.00	ug/kg							
Methyl tert-butyl ether (MTBE)	ND	4.00	ug/kg							
1,1-Dichloroethane	ND	4.00	ug/kg							
Vinyl acetate	ND	40.0	ug/kg							
2,2-Dichloropropane	ND	4.00	ug/kg							
cis-1,2-Dichloroethene	ND	4.00	ug/kg							
2-Butanone (MEK)	ND	40.0	ug/kg							
Bromochloromethane	ND	4.00	ug/kg							
Chloroform	ND	4.00	ug/kg							
1,1,1-Trichloroethane	ND	4.00	ug/kg							
Carbon tetrachloride	ND	4.00	ug/kg							
1,1-Dichloropropene	ND	4.00	ug/kg							
Benzene	ND	2.00	ug/kg							
1,2-Dichloroethane	ND	4.00	ug/kg							
Trichloroethene (TCE)	ND	4.00	ug/kg							
1,2-Dichloropropane	ND	4.00	ug/kg							
Dibromomethane	ND	4.00	ug/kg							
1,4-Dioxane	ND	80.0	ug/kg							
Bromodichloromethane	ND	4.00	ug/kg							
2-Chloroethyl vinyl ether	ND	40.0	ug/kg							
cis-1,3-Dichloropropene	ND	4.00	ug/kg							
4-Methyl-2-pentanone (MIBK)	ND	40.0	ug/kg							
Toluene	ND	2.00	ug/kg							
trans-1,3-Dichloropropene	ND	4.00	ug/kg							
1,1,2-Trichloroethane	ND	4.00	ug/kg							
Tetrachloroethene (PCE)	ND	4.00	ug/kg							
1,3-Dichloropropane	ND	4.00	ug/kg							
2-Hexanone (MBK)	ND	40.0	ug/kg							
Dibromochloromethane	ND	4.00	ug/kg							
1,2-Dibromoethane (EDB)	ND	4.00	ug/kg							

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Project: Crystal Geyser

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BE51912 - EPA 5030B										
Chlorobenzene	ND	4.00	ug/kg							
1,1,1,2-Tetrachloroethane	ND	4.00	ug/kg							
Ethylbenzene	ND	2.00	ug/kg							
m,p-Xylene	ND	2.00	ug/kg							
o-Xylene	ND	2.00	ug/kg							
Styrene	ND	4.00	ug/kg							
Bromoform (Tribromomethane)	ND	4.00	ug/kg							
Isopropylbenzene	ND	4.00	ug/kg							
Bromobenzene	ND	4.00	ug/kg							
1,1,2,2-Tetrachloroethane	ND	4.00	ug/kg							
1,2,3-Trichloropropane	ND	4.00	ug/kg							
n-Propylbenzene	ND	4.00	ug/kg							
2-Chlorotoluene	ND	4.00	ug/kg							
4-Chlorotoluene	ND	4.00	ug/kg							
1,3,5-Trimethylbenzene	ND	4.00	ug/kg							
tert-Butylbenzene	ND	4.00	ug/kg							
1,2,4-Trimethylbenzene	ND	4.00	ug/kg							
sec-Butylbenzene	ND	4.00	ug/kg							
1,3-Dichlorobenzene	ND	4.00	ug/kg							
4-Isopropyltoluene	ND	4.00	ug/kg							
1,4-Dichlorobenzene	ND	4.00	ug/kg							
1,2-Dichlorobenzene	ND	4.00	ug/kg							
n-Butylbenzene	ND	4.00	ug/kg							
1,2-Dibromo-3-chloropropane (DBCP)	ND	4.00	ug/kg							
1,2,4-Trichlorobenzene	ND	4.00	ug/kg							
Hexachlorobutadiene	ND	4.00	ug/kg							
Naphthalene	ND	4.00	ug/kg							
1,2,3-Trichlorobenzene	ND	4.00	ug/kg							
Surrogate: Dibromofluoromethane	*10.6*		ug/kg	*10.00*		*106*	*67-123*			
Surrogate: Toluene-d8	*9.52*		ug/kg	*10.00*		*95.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*10.6*		ug/kg	*10.00*		*106*	*80-120*			
LCS Prepared & Analyzed: 05/18/15										
1,1-Dichloroethene	23.1	4.00	ug/kg	20.00		115	69-139			
Methyl tert-butyl ether (MTBE)	22.6	4.00	ug/kg	20.00		113	64-127			
Benzene	19.0	2.00	ug/kg	20.00		95.2	69-130			
Trichloroethene (TCE)	23.1	4.00	ug/kg	20.00		116	68-133			
Toluene	21.7	2.00	ug/kg	20.00		108	70-130			
Chlorobenzene	20.0	4.00	ug/kg	20.00		99.9	73-120			
Surrogate: Dibromofluoromethane	*10.6*		ug/kg	*10.00*		*106*	*80-120*			
Surrogate: Toluene-d8	*9.52*		ug/kg	*10.00*		*95.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*10.6*		ug/kg	*10.00*		*106*	*80-120*			

POSITIVE LAB SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

United Storm Water, Inc.
14000 E. Valley Blvd.
City of Industry, CA 91746

Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

File #:75095
Report Date: 05/21/15
Submitted: 05/14/15
PLS Report No.: 1505154

Project: Crystal Geyser

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BE51832 - EPA 3550C										
Blank Prepared & Analyzed: 05/15/15										
Naphthalene	ND	200	ug/kg							
2-Methylnaphthalene	ND	200	ug/kg							
Acenaphthylene	ND	200	ug/kg							
Acenaphthene	ND	200	ug/kg							
Fluorene	ND	200	ug/kg							
Phenanthrene	ND	200	ug/kg							
Anthracene	ND	200	ug/kg							
Fluoranthene	ND	200	ug/kg							
Pyrene	ND	200	ug/kg							
Benzo (a) anthracene (1,2-Benzanthracene)	ND	200	ug/kg							
Chrysene	ND	200	ug/kg							
Benzo (b) fluoranthene (3,4-Benzofluoranthene)	ND	200	ug/kg							
Benzo (k) fluoranthene (11,12-Benzofluoranthene)	ND	200	ug/kg							
Benzo (a) pyrene (3,4-Benzopyrene)	ND	100	ug/kg							
Indeno (1,2,3-cd) pyrene	ND	200	ug/kg							
Dibenzo(a,h)anthracene (1,2,5,6-Dibenzanthracene)	ND	200	ug/kg							
Benzo (g,h,i) perylene (1,12-Benzoperylene)	ND	200	ug/kg							
Surrogate: Nitrobenzene-d5	*4020*		ug/kg	*5000*		*80.4*	*46-110*			
Surrogate: 2-Fluorobiphenyl	*5000*		ug/kg	*5000*		*100*	*49-108*			
Surrogate: Terphenyl-dl4	*7170*		ug/kg	*5000*		*143*	*58-135*			
LCS Prepared & Analyzed: 05/15/15										
Acenaphthene	2450	200	ug/kg	2500		98.1	57-113			
Pyrene	2770	200	ug/kg	2500		111	57-124			
Surrogate: Nitrobenzene-d5	*3350*		ug/kg	*5000*		*67.0*	*46-119*			
Surrogate: 2-Fluorobiphenyl	*4890*		ug/kg	*5000*		*97.8*	*54-108*			
Surrogate: Terphenyl-dl4	*6460*		ug/kg	*5000*		*129*	*70-127*			
Matrix Spike Source: 1505154-01 Prepared & Analyzed: 05/15/15										
Acenaphthene	2520	800	ug/kg	2500	ND	101	64-112			
Pyrene	3270	800	ug/kg	2500	ND	131	55-132			
Surrogate: Nitrobenzene-d5	*3940*		ug/kg	*5000*		*78.8*	*56-105*			
Surrogate: 2-Fluorobiphenyl	*5090*		ug/kg	*5000*		*102*	*54-109*			
Surrogate: Terphenyl-dl4	*7410*		ug/kg	*5000*		*148*	*62-141*			
Matrix Spike Dup Source: 1505154-01 Prepared & Analyzed: 05/15/15										
Acenaphthene	2380	800	ug/kg	2500	ND	95.4	64-112	5.73	30	
Pyrene	3150	800	ug/kg	2500	ND	126	55-132	3.85	30	
Surrogate: Nitrobenzene-d5	*3650*		ug/kg	*5000*		*73.0*	*56-105*			

POSITIVE LAB SERVICE

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Certificate of Analysis

United Storm Water, Inc.
14000 E. Valley Blvd.
City of Industry, CA 91746

Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

Project: Crystal Geyser

File #:75095
Report Date: 05/21/15
Submitted: 05/14/15
PLS Report No.: 1505154

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BE51832 - EPA 3550C										
Surrogate: 2-Fluorobiphenyl	*4820*		ug/kg	*5000*		*96.4*	*54-109*			
Surrogate: Terphenyl-dl4	*7060*		ug/kg	*5000*		*141*	*62-141*			
Batch BE52126 - EPA 3050B										
Blank Prepared: 05/20/15 Analyzed: 05/21/15										
Arsenic	ND	1.00	mg/kg							
Barium	ND	1.00	mg/kg							
Cadmium	ND	1.00	mg/kg							
Chromium	ND	1.00	mg/kg							
Lead	ND	1.00	mg/kg							
Selenium	ND	1.00	mg/kg							
Silver	ND	1.00	mg/kg							
LCS Prepared: 05/20/15 Analyzed: 05/21/15										
Arsenic	49.3	1.00	mg/kg	50.10		98.5	80-120			
Barium	205	1.00	mg/kg	200.4		102	80-120			
Cadmium	5.16	1.00	mg/kg	4.980		104	80-120			
Chromium	20.2	1.00	mg/kg	19.89		102	80-120			
Lead	51.7	1.00	mg/kg	50.00		103	80-120			
Selenium	46.5	1.00	mg/kg	50.10		92.8	80-120			
Silver	4.87	1.00	mg/kg	4.970		98.1	80-120			
Matrix Spike Source: 1505291-09 Prepared: 05/20/15 Analyzed: 05/21/15										
Arsenic	51.9	1.00	mg/kg	50.10	7.44	88.8	75-125			
Barium	319	1.00	mg/kg	200.4	136	91.3	75-125			
Cadmium	6.32	1.00	mg/kg	4.980	1.30	101	75-125			
Chromium	92.4	1.00	mg/kg	19.89	63.6	145	75-125			V-2
Lead	118	1.00	mg/kg	50.00	65.7	105	75-125			
Selenium	41.2	1.00	mg/kg	50.10	ND	82.2	75-125			
Silver	4.32	1.00	mg/kg	4.970	ND	86.9	75-125			
Matrix Spike Dup Source: 1505291-09 Prepared: 05/20/15 Analyzed: 05/21/15										
Arsenic	53.4	1.00	mg/kg	50.10	7.44	91.8	75-125	3.32	30	
Barium	322	1.00	mg/kg	200.4	136	92.7	75-125	1.51	30	
Cadmium	5.89	1.00	mg/kg	4.980	1.30	92.1	75-125	8.93	30	
Chromium	103	1.00	mg/kg	19.89	63.6	198	75-125	30.9	30	V-2
Lead	113	1.00	mg/kg	50.00	65.7	93.7	75-125	11.0	30	
Selenium	41.1	1.00	mg/kg	50.10	ND	82.1	75-125	0.132	30	
Silver	4.46	1.00	mg/kg	4.970	ND	89.7	75-125	3.22	30	
Batch BE51847 - EPA 7471A										
Blank Prepared & Analyzed: 05/15/15										
Mercury	ND	0.100	mg/kg							

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Certificate of Analysis

United Storm Water, Inc.
14000 E. Valley Blvd.
City of Industry, CA 91746

File #:75095
Report Date: 05/21/15
Submitted: 05/14/15
PLS Report No.: 1505154

Attn: Mr. Ramon Menjivar Phone: (626) 890-7104 FAX:(626) 961-3166

Project: Crystal Geyser

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BE51847 - EPA 7471A										
LCS Prepared & Analyzed: 05/15/15										
Mercury	0.788	0.100	mg/kg	0.8367		94.2	80-120			
Matrix Spike Source: 1505145-01 Prepared & Analyzed: 05/15/15										
Mercury	0.923	0.100	mg/kg	0.8367	0.0280	107	75-125			
Matrix Spike Dup Source: 1505145-01 Prepared & Analyzed: 05/15/15										
Mercury	0.905	0.100	mg/kg	0.8367	0.0280	105	75-125	2.03	25	

Notes and Definitions

V-2	Out-of-Range recovery was due to sample Heterogeneity.
M	Matrix interference
NA	Not Applicable
ND	Analyte NOT DETECTED at or above the reported limit(s)
NR	Not Reported
MDL	Method Detection Limit
PQL	Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)

UNITED PUMPING SERVICE INC.

CHAIN OF CUSTODY RECORD

1505154 1191

Laboratory Project No. Crystal Geyser.

Sample Type: (Check One) ☐ Liquid ☒ Solid

Return Analysis Report To:
United Pumping Service, Inc.
14016 E. Valley Blvd.
Industry, Ca. 91746

Project Manager:
~~Paul Corn~~ Ramon M
~~(818)961-9326~~
Ex. 225

Relinquished by: ________ Date: ________ Received By: John Schmidt Date: 5/14/15 1440

Relinquished by: [signature] Date: 5/15/15 Received By: [signature] Date: 5/15/15

Date	Time	Location	Roll-Off Bin #	Pumphouse	Drop Inlet	Drop Inlet/ D.P.
5/13		Olancha				

TAT (Analytical Turn-Around Time)= 72 Hours

Check One Or More

(Screen all sediments before water analysis)

☐ Standard Analysis
CAM 17 Metals
Inorganics
8015-M/Gas
8015-M/Diesel

* RCRA 8 metals
* BTEX (VOCs)
* PAH'S

☐ Additional Analysis
☐ EPA 418.1
☐ Asbestos
☐ PAH EPA 8100
☐ STLC
☐ TCLP Extraction
☐ Gravity Compaction

☐ Water Analysis
CAM 17 Metals
Inorganics
8015-M/Gas
8015-M/Diesel
PH EPA 150.1
Suspended Solids EPA 160.2
Electrical Conductivity EPA 120.1
Total Organic Carbon EPA 9060

Client Name: (Check One)

☐ CalTrans District #7
2187 Riverside Dr.
Los Angeles, CA. 90039
(213)620-3328
(213)620-2107

☐ CalTrans District #12
2501 Pullman St.
Santa Ana, CA. 92705
(714)639-6682

Laboratory Use Only: Sample Condition Upon Receipt
Samples Intact Yes No
Samples Cooled Ambient Frozen
0.8°C

APPENDIX E
Photo Logs

Photographic Record

Taken by:	CG Roxane, LLC
Site:	1210 South Highway 395, Olancha, CA 93549

Photograph 1	
Date: 19 May 2015	
Comments: Liquid removal	

Photographic Record

Taken by: CG Roxane, LLC

Site: 1210 South Highway 395, Olancha, CA 93549

Photograph 2

Date:

15 May 2015

Comments:

Dry pond

Photographic Record

Taken by:	CG Roxane, LLC
Site:	1210 South Highway 395, Olancha, CA 93549

Photograph 3

Date:

15 May 2015

Comments:

Pond cleaning

Photographic Record

Taken by:	CG Roxane, LLC
Site:	1210 South Highway 395, Olancha, CA 93549

Photograph 4	
Date: 15 May 2015	
Comments: Pond cleaning	

Photographic Record	
Taken by:	CG Roxane, LLC
Site:	1210 South Highway 395, Olancha, CA 93549

Photograph 5	
Date: 15 May 2015	
Comments: Pond cleaning	

Photographic Record	
Taken by: CG Roxane, LLC	
Site: 1210 South Highway 395, Olancha, CA 93549	
Photograph 6 Date: 15 May 2015 Comments: Empty pond	

APPENDIX F
Correspondence

Subject: CG Roxane - Olancha Facility Investigation
Date: Monday, October 20, 2014 11:52:37 AM Pacific Daylight Time
From: Page Beykpour
To: Stuck, David, Schwartz, Debra
CC: Christopher Sanders

10/20/2014

Dear Debra and David:

Thank you again for speaking with us on October 8th.

This email follows your team's onsite investigation of the Sand Filter Regeneration Process at our Olancha Facility on October 18th and 19th.

Based on discussions with our regional staff, we have very limited information concerning your visit last week. First, we are unclear on how many samples were taken and at what point in the regeneration process. It appears that some samples were taken pre-neutralization of the waste stream at the sand filter unit and sand filter room floor drain. Second, we are told that your team was onsite for only two cycles of the alkaline solution wash. Finally, our regional staff was not provided the split samples that we requested and you agreed would be done.

As discussed during our call on the 8th, it is CG Roxane's general position as a "food processing operation" that its filtering of arsenic from production water, as well as the associated application of alkaline solution ("Caustic Soda") to the sand filter media and the neutralization of the resulting waste stream using an acidic solution (Sulfuric Acid) are exempted under various Health & Safety Code provisions (e.g., Sections 25201.13 and 25201.14).

We do want to restate that any samples taken immediately after the sand filter point are not representative of the waste steam (in particular, as it applies to pH levels) being discharged to the Arsenic Pond. As discussed further during our call, such samples would be taken pre-neutralization (i.e., at the sand filter and sand filter drains) and, therefore, will exhibit materially different characteristics than those being discharged to the Arsenic Pond.

Finally, we are concerned over the possibility that samples from this waste steam were <u>not</u> taken in intervals over a sufficient period of time over the regeneration process. The entire regeneration process spans over many hours, involving flushing of the sand filter media with raw water <u>only</u> at the later stages.

We would greatly appreciate a summary of the following information from your investigations: (1) number of samples, (2) samples locations, and (3) why split samples were not provided to CG Roxane as discussed.

We remain committed to our continued efforts in cooperating with your investigation. Please let us know if you have any questions or concerns at this time.

Thank you for your assistance.

Best regards,

Page Beykpour
Chief Operations Officer & Corporate Counsel

CG ROXANE LLC

Phone: (415)-339-8230
Fax: (415)-332-1472
Mail: 2330 Marinship Way, Suite 190
Sausalito, CA 94965
Email: p.beykpour@cgroxane.com
Web: www.crystalgeyserasw.com

CG Roxane LLC

Crystal Geyser® Alpine Spring Water®, Bottled at the Source

SENT VIA CERTIFIED MAIL

May 7, 2015

Robert Kou
Branch Chief
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, California 91311

Dear Mr. Kou:

This letter is in regards to the Department of Toxic Substances Control's ("DTSC") pending inspection of CG Roxane's ("CGR" or "the Company") wastewater discharge practices at its Olancha, California bottled water facility ("Facility").

It was a pleasure meeting in person with you and your team on April 13, 2015. Pursuant to our discussions, we have summarized hereunder our request for your department's written concurrence regarding CGR's proposal (1) to neutralize regeneration effluent in an enclosed neutralizing tank under a permit by rule, and (2) the recondition of manganese dioxide sand contained within the sand filter units by exclusion.

A. SUMMARY OF ARSENIC (As) REMOVAL PROCESS

At the Facility, CGR bottles spring water using two production wells (CGR-2 and CGR-7). The Department of Public Health, Food and Drug Branch has permitted this Facility's operations, including the wells and the associate springs, to withdraw and bottle spring water.

The Facility contains two distinct buildings on the property—Olancha North and Olancha South. Each building contains three manufacturing lines (3, 5, 6 and 1, 2, 4, respectively).

Of particular note, the spring water at the property contains elevated levels of naturally occurring Arsenic ("*As*"). The background levels of *As* in the spring water sourced from CGR-2 and CGR-7 average 0.010 mg/l and 0.023 mg/l, respectively.

The Food and Drug Administration ("FDA") regulates bottled water as a food and has established specific regulations for quality under Title 21 of the Code of Federal Regulations (21 CFR). With respect to the sale of bottled water, these regulations establish a maximum contaminant level ("MCL") for *As* below 0.010

mg/l (10 ppb)[1]. In order to meet these allowable levels for *As* in its bottled water, CG Roxane uses several manganese dioxide (*MnO_2*) sand filter adsorption units that remove *As* from the spring water ("Sand Filter Units") while at the same time preserving the composition of the spring water. Two Sand Filter Units are used for Lines 3 and 5, one Sand Filter Unit is used for Line 6, and two Sand Filter Units are used for Lines 1, 2, and 4.

The Sand Filter Units adsorbing *As* become less efficient over time due to saturation of the sand. In an effort to restore the ability of the Sand Filter Units to adsorb *As*, CGR implements a treatment process whereby the *MnO_2* sand within each Sand Filter Unit is periodically reconditioned using an alkaline solution. The reconditioning process utilizes between one to four batches of 30% sodium hydroxide and water solution ("2% Caustic Soda Solution"), which is flushed through the Sand Filter Units in a backwash mode[2]. The Solution causes *As* to de-adsorb from the *MnO_2* sand. This entire back flush process generates approximately 11,000 – 20,000 gallons of aqueous[3] hazardous waste[4]. This wastewater was previously discharged to a single-lined onsite impoundment ("Arsenic Pond") after being neutralized in-process. A second phase involves the forward flushing of the Sand Filter Units with spring water for the purpose of reconditioning the *MnO_2* sand to a level where optimal adsorption occurs. This non-hazardous effluent was discharged to an onsite impoundment ("Percolation Pond").

Prior to the Department of Toxic Substances Control (DTSC) issuance of its Summary of Violations dated April 13, 2015, CG Roxane voluntarily ceased all its discharge of effluent to the Arsenic Pond. Instead, during the last regeneration that occurred in March 2015, the Company transported the resulting hazardous wastewater of approximately 11,000 gallons to an authorized waste facility using a registered third-party hauler and hazardous waste manifest (*See Appendix A – Hazardous Waste Manifest*). *See Appendix B - Depiction of Regeneration Process.*

B. PROPOSALS FOR EFFLUENT NEUTRALIZATION AND SULFURIC ACID SOLUTION RECONDITIONING OF SAND

1. Effluent Neutralization

As mentioned above, CG Roxane believes that the wastewater resulting from the Caustic Soda Solution backwash is hazardous for toxicity (i.e., *As* content) and/or

[1] *See 21 CFR 165.110(b)(4)(iii)(A)*

[2] 3,750 to 7,500 gallons of solution per batch depending on the location of the Sand Filter Unit.

[3] Pursuant to 67450.11(b), "an aqueous waste is defined as a waste containing water, and less than or equal to one percent of suspended solids, as measured by Method 209C described in 'Standard Methods for Examination of Water and Wastewater," 16th Edition, published jointly by the American Public Health Association, the American Water Works Association, and the American Pollution Control Federation, 1985.'"

[4] As content > 5.0 mg/l and pH > 12.5

corrosivity (i.e., pH).

Prior to hauling the effluent off-site, CGR proposes to send the hazardous waste to a self-contained and closed system, 8,000-gallon neutralization tank (Neutralization Tank) connected to the Sand Filter Units within each building through pipes. The Neutralization Tank will be equipped with a circulation pump system and deliver the waste from the respective Sand Filter Units. A solution of 93% sulfuric acid water would be added to the Neutralization Tank. The wastewater delivered to the Neutralization Tank and the Acid Solution would be circulated within the Neutralization Tank and homogenized until a pH < 10 is achieved.[5] See *Appendix C - depiction of waste neutralization.*

CGR recognizes the general rule that DTSC requires a permit or other grant of authorization for treatment of hazardous waste[6]. However, the Company believes that this neutralization is allowed through permit by rule ("PBR").

Pursuant to 40 CFR 260.10, "a tank, tank system, container, transportation vehicle, or vessel" that meets the definition of an "elementary neutralization unit" or wastewater treatment unit in 40 CFR 260.10 is exempted from permitting requirements under 40 CFR 264.1(g)(6), 40 CFR 265.1(c)(10), and 40 CFR 270.1(c)(2)(v). California law offers no comparable permit exception, and therefore, these treatment units are subject to authorization requirements under Health and Safety Code section 25201 and corresponding regulations in 22 CCR 66264.1(b), 66265.1(b), and 66270.1(c). Notwithstanding the foregoing, however, pursuant to 22 CCR 66270.1(c)(1)(E), treatment of hazardous waste using a fixed treatment unit may be permitted by rule when specified conditions are met. Pursuant to 22 CCR 67470.11(a)(2)(A), "pH adjustment or neutralization" of aqueous wastes containing metals is an activity that may be permitted by rule.

CGR hereby respectfully requests DTSC's written concurrence that PBR applies to this neutralization process. Additionally, CGR will be seeking PBR approvals from Inyo County as well.

2. Sulfuric Acid Reconditioning of Manganese Sand

CGR believes that the injection of a sulfuric acid solution[7] to the Sand Filter Units after the Caustic Soda Solution backwash process will recondition the MnO_2 sand allowing for quicker *As* adsorption. It is believed that this reconditioning process will greatly reduce the overall water usage (and corresponding effluent discharge) for the forward flushing of the Sand Filter Units during the second phase of the regeneration process.

---

[5] The wastewater will remain hazardous due to its *As* content.

[6] *See* HSC 25201

[7] CG Roxane intends to add 2 -5 gallons of 93% Sulfuric Acid - Water Solution to the Sand Filter Units.

Pursuant to 40 CFR 261.1(c)(4) and 22 CCR 66260.10 "a material is 'reclaimed' if it is processed to recover a usable product, or if it is regenerated." Pursuant to 40 CFR 261.4(a)(8) a "secondary material" that is "reclaimed" or "returned" to the original process or processes where they are reused are not solid wastes and therefore exempted from regulation provided that: (i) only tank storage is involved, and the entire process through completion of reclamation is a closed system which is connected for in-flow and out-flow by pipes; (ii) reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators); (iii) the secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and (iv) the reclaimed material is not used to produce fuel, or used to produce products that are used in a manner constituting disposal. This exclusion has been adopted by the DTSC under 22 CCR 66261.4(a)(5).

Since the Sand Filter Units are (i) entirely closed tank systems, and the entire process of sulfuric acid reconditioning is completed through circulating solution in and out of connected pipes, (ii) the reclamation process does not involve flame combustion, (iii) the *As* adsorbed *Mn* sand is never accumulated for a period of time over twelve months without being reclaimed through the reconditioning process; and (iv) the reclaimed material (i.e., *Mn* sand) is not used to produce products that are used in a manner constituting disposal; CGR believes that the reconditioning of the *Mn* sand is exempted from permit under 22 CCR 66261.4(a)(5)[8]. *See Appendix D - Depiction of Reconditioning Process.*

CGR hereby respectfully requests DTSC's written concurrence that the exception identified here applies to the sand reconditioning using an Acid Solution.

C. Conclusion

CGR remains committed to its full cooperation with the DTSC. It is of the utmost priority to the Company that it returns to compliance as soon as possible. As such, the Company decommissioned its use of the Arsenic Pond prior to the DTSC's Summary of Violations. Furthermore, CGR is currently looking into options for the removal of remaining aqueous and sludge waste within the Arsenic Pond, as well as the associated liner. Furthermore, CGR has, and will continue to utilize a third-party waste hauling company and authorized waste treatment and disposal facility until such time that a permanent solution, acceptable to DTSC, is reached for the storage and disposal of any hazardous waste resulting from the sand filter regeneration process.

As aforementioned, CGR will be seeking PBR approval from Inyo County for the tank neutralization process summarized above.

[8] The exclusion under Sec. 66261.4(a)(5) is self-implementing. It is CG Roxane's understanding that it is not required to obtain DTSC's approval prior to commencing operation under such exclusion.

We would greatly appreciate your prompt response to our request for written concurrence. Should you have any questions, please do not hesitate to contact me directly at 415-339-8230, or alternatively, at 415-595-1212. Thank you for your attention to this matter.

Sincerely,

Page Beykpour
Chief Operations Officer

cc: David J. Stuck / DTSC
Christie Bautista / DTSC
Debra Schwartz / DTSC
Phillip Blum / DTSC
Glenn Forman / DTSC
Chris Sanders
Norm Riley
George Castaneda

Subject: Summary Reports / Stored Liner - CG Roxane Olancha Facility
Date: Thursday, May 28, 2015 9:16:50 AM Pacific Daylight Time
From: Page Beykpour
To: David Stuck, Roberto Kou, Christie Bautista

Dear All,

It was a pleasure speaking to you all a couple weeks ago.

As a status update, we are still gathering the necessary information you have requested in order to prepare our summary reports for the (1) updated regeneration process, and (2) disposal and cleaning process for the Arsenic Pond. We thank you for your patience in this regard.

Pursuant to your request, we have stored the liner for the Arsenic Pond onsite in waste binds provided by the third-party hauling company. We are somewhat concerned about violating any generator status hazardous waste storage regulations.

Is it possible to schedule the intended onsite inspection of the liner at your earlier convenience?

Thank you.

Best regards,

Page Beykpour
Chief Operations Officer & Corporate Counsel

CG ROXANE LLC

Phone: (415)-339-8230
Fax: (415)-332-1472
Mail: 2330 Marinship Way, Suite 190
Sausalito, CA 94965
Email: p.beykpour@cgroxane.com
Web: www.crystalgeyserasw.com

CELEBRATING 25 YEARS CRYSTAL GEYSER NATURAL ALPINE SPRING WATER BY CG ROXANE 1990 - 2015

Subject: Summary Reports / Arsenic Pond Liner Disposal
Date: Friday, May 29, 2015 4:27:08 PM Pacific Daylight Time
From: Page Beykpour
To: David Stuck, Christie Bautista
CC: Norm Riley , Christopher Sanders, Roberto Kou, George Castaneda, Pierre Boulier

Dear David / Christie:

It was good speaking with you both yesterday.

This correspondence regards your Department's requests for summary reports on our Company's (1) modification of the regeneration process as discussed during the meeting on April 13th, and (2) the subsequent removal of waste from the Arsenic Pond, as well as the disposal of the Arsenic Pond Liner stored onsite in hazardous waste bins.

Pursuant to our conversation, you have ask that we hold off on preparing the above referenced reports to allow for your Department to provide requests for additional information. We look forward to receipt of your written request by email.

Furthermore, we would like to confirm that you have authorized our disposal through the use of authorized third-parties. Therefore, we have contacted such parties and will proceed with the disposal pursuant to applicable law and regulations.

Thank you for your continued efforts with respect to this investigation.

Best regards,

Page Beykpour
Chief Operations Officer & Corporate Counsel

CG ROXANE LLC

Phone: (415)-339-8230
Fax: (415)-332-1472
Mail: 2330 Marinship Way, Suite 190
Sausalito, CA 94965
Email: p.beykpour@cgroxane.com
Web: www.crystalgeyserasw.com

CELEBRATING 25 YEARS 1990 - 2015
CRYSTAL GEYSER NATURAL ALPINE SPRING WATER BY CG ROXANE

APPENDIX G
United Storm Water Statement of Qualifications

STATEMENT OF QUALIFICATIONS

United Pumping Service, Inc.

Hazardous Waste/Remediation Contractor
14000 E. Valley Blvd.
City of Industry, Ca. 91746
626/961-9326 Sales Fax: 626/336-7734

A, ASB, Haz, C21, C31 and C42 Licensed General Engineering; Asbestos Remediation; Hazardous Substances Removal and Remedial Action; Building, Moving and Demolition; Construction Zone Traffic Control and also as a Sanitation System Contractor

California License No. **617639**

Rev. 03/09/11

TABLE OF CONTENTS

SUMMARY

United Pumping Service, Inc. (United) is a fully qualified environmental remediation, transportation, and emergency spill response contractor. The company is a Minority Business Enterprise and offers a full spectrum of hazardous waste handling and storm water remedial action activities.

With a background of more than 42 years in hazardous waste removal/transportation and more than 25 years in solving remedial action problems for clients, United brings an outstanding level of technical experience, physical resources, and practical know-how to each job.

Services:

- Storm water remedial actions & management
- Sludge de-watering & management
- Hazardous materials emergency spill response
- Traffic Control (static & moving closures)
- Hazardous waste handling & Lab packing
- Waste identification & profiling
- Waste transportation and disposal
- Decontamination of equipment, tanks, and structures
- Demolition of equipment and structures
- Contaminated soil excavation and removal
- Above and below ground tank removal

Health & Safety Program

United has extensive health and safety experience in many working environments. The company's health and safety program is managed by well trained, experienced, certified personnel and meets requirements of Title 8, California Code of Regulations.

Experience

United has successfully completed more than 1500 remediation and/or emergency response projects for clients in petroleum, chemical, aerospace, heavy manufacturing industries and the public sector. Contracted to the State of California as the General Contractor, United has successfully completed four years of management and services for the largest storm water remediation project in the United States. Major projects are often performed concurrently.

Responsibility

A strong financial position and bonding capability, a sound reputation with clients and vendors alike, and appropriate insurance coverage's, assures clients that United is capable of successfully completing any project taken on, and that the company stands behind it's work.

Conclusion

United's remedial experience, practical know how, proven track record and long standing reputation, assure sound remediation/hazardous waste services for your company or client. Large or small, simple or complex, selecting United will assure the successful completion of your project.

CORPORATE HISTORY/BACKGROUND

Eduardo T. Perry, providing vacuum truck service to industry founded United Pumping Service in 1970.

The company grew as a result of providing high quality specialty services such as corrosives removal.

During this time, United Personnel developed extensive experience in the handling of extremely hazardous materials on a routine basis. This made the company well matched for the hazardous waste needs of the Aerospace/Defense Industries.

In 1974 United Pumping Service incorporated and continued to grow as a service oriented hazardous waste transportation firm. The company continued to specialize in highly corrosive materials and designed and built it's own custom equipment. As customer's hazardous waste needs changed, the company broadened its capabilities to include numerous transportation and remediation services. Demand for non-transportation services grew and the company began performing contaminated soil and U.S.T. excavations/removals as well as site decontaminations.

In the meantime, various members of Mr. Perry's family had joined the firm, adding to its strong core of key managers. As new regulations were imposed, the firm moved quickly to provide the hazardous waste removal and site remediation services clients needed to remain in compliance.

In 1982, United initiated its first hazardous materials emergency response contract with the State of California, Department of Transportation. This new service matched well with the company's capabilities as the firm had already been providing emergency service to aerospace firms for many years. Additional emergency response contracts with various municipalities and private sector clients were also obtained.

The following years included steady growth and the capture of a larger market share, particularly in the aerospace industry. United continued to develop specialized capital equipment and broaden its range of capabilities. The firm began focusing on medium to large sized remediation projects as both a primary and subordinate contractor. The firm was very successful, particularly in decontamination/demolition projects where it's crews were well adapted.

As aerospace/defense spending declined with the end of the "Cold War", United further developed and emphasized its remediation capabilities. The firm invested in required management personnel and capital equipment.

To meet the needs of our customers United expanded our remediation department to include storm water remediation. In 1994 the State of California contracted United for the largest Storm water remediation project in the United States. This project required all storm drains (in Los Angeles, Kern, Ventura Counties) be inspected, inventoried, cleaned and the waste materials tracked and managed in the most cost-effective manner. All tasks were completed on schedule, on budget and within the time restrictions imposed by the court ordered injunction. United has continued to meet all the requirements of this contract to-date, San Bernardino, Riverside and Orange Counties.

The firm continues to provide the best service available with a "Ranch Hand" team philosophy where all employees work hard and "wear different hats" to assure customer satisfaction.

SERVICES AND CAPABILITIES

During the more than 42 years of hazardous waste cleanup and removal, United has developed a broad base of capabilities. As a result, United is able to offer the following services:

Storm water remedial actions & management
Sludge de-watering & management
Hazardous materials emergency spill response
Traffic Control (static & moving closures)
Hazardous waste handling & Lab packing

Waste identification & profiling
Waste transportation and disposal
Decontamination of equipment, tanks, and structures
Demolition of equipment and structures
Contaminated soil excavation and removal
Above and below ground tank removal

Storm Water Remedial Actions & Management

United has been contracted to the California Department of Transportation (CalTrans) for Storm-Water Management for the past four years in: Los Angeles, Orange, Riverside, San Bernardino Counties. These contracts include: Cleaning approximately 15,000 storm drain inlets and associated discharge piping, sampling and assisting in waste classification, obtaining permits for Transportable Treatment Units (TTU) and National Pollution Elimination Discharge Systems (NPDES) to manage storm-water waste and provide Traffic Control for drain cleaning operations.

Our DrainPac is a storm drain best management practice and is a catchment and filtration system for any storm drain system. The retrofit design allows for simple installation and maintenance to any catch basin. United is the only company that provides complete service to non-point source runoff: inspection, installation, maintenance and transportation & disposal. All stages of this service are properly documented to ensure compliance.

Sludge De-Watering & Management

United has been permitted with a Transportable Treatment Unit (TTU) Conditional exempt permit by the California Department of Toxics Substances Control for de-watering sludge. We have been removing the waste from the storm drain systems, clarifiers, drilling mud and other sludge waste for over five years with Industrial Vacuum Trucks and placing sludge into roll-off bins for de-watering.

The de-watering roll-off bin provides many means of cost savings. It reduces volume of waste going to a landfill, cuts transportation costs, eliminates solidification costs and reduces handling costs.

The de-watering roll-off bins are the simple, inexpensive way of separating the solid and liquid phases of sludge. The filters are so effective in trapping solids, hydrocarbons and heavy metals that expelled water is compliant with “N.P.D.E.S. Regulations” and “Clean Water Act”.

Traffic Control (static & moving closures)

United has been responsible for planning the, activating, and maintaining of over 3,500 static closures per year for the past four years. United is one of the few companies that will run moving closures. We have been responsible for the planning, activating, and maintaining over 1,500 moving closures per year for the past four years.

All Supervisors & Technicians are trained annually in proper traffic control procedures for California Department of Transportation in accordance with Chapter eight.

Sampling and Identification

To satisfy client sampling/identification needs United provides a variety of sampling/identification services. In many instances, the identification of a sample may be unknown. United has various personnel trained and equipped in the "Haz Cat" identification method for unknown materials. All samples taken and handled are performed in compliance with regulations.

Both onsite and offsite laboratory services are available through various prominent certified laboratories.

Hazardous Waste Handling

To augment clients' hazardous waste management programs, United provides a variety of hazardous waste handling services.

United provides crews to perform hazardous waste management services at customers' premises on routine or as needed basis. These services include:

- Hazardous waste collection, segregation and consolidation
- Waste labeling and inventory preparation
- Waste compaction and consolidation

Hazardous waste handling for clients has been very beneficial, as it has enabled our customer's to fulfill their needs without maintaining costly full time employees and maintaining required training.

Waste Identification and Profiling

United's supervisors and project managers have been trained in the HAZ CAT method of identifying unknown materials. They are able to identify unknown substances based upon the results of a series of bench tests. This information is vital in determining how wastes are to be packaged, shipped and disposed of, as well as what safety precautions are required for field personnel. Additional laboratory analysis is often obtained and submitted to disposal facilities along with waste profile forms. Customer waste profiles are tracked internally and are rushed through disposal facility waste acceptance procedures as needed.

Decontamination of Tanks, Equipment, and Structures

In many remediation projects, the surface areas of tanks, equipment and structures have been contaminated with a variety of hazardous residues. United is fully equipped to decontaminate all of these areas through various mechanical and chemical methods.
These items are often decontaminated and reused, resold, or recycled, to recover their value.

United has decontaminated many types of surfaces and worked with virtually all forms of contaminants including heavy metals, M.D.A., petroleum and lead. Common decontamination methods include high-pressure washing, steam cleaning, sand blasting, acid leaching, bead blasting, and wiping by hand. In each case, United has provided practical solutions and succeeded in achieving client objectives.

Demolition of Equipment and Structures

When decontamination of equipment and/or structures is completed or uneconomical to perform, demolition is often required. United provides demolition services for both contaminated and non-hazardous items. Some areas may require partial or complete demolition prior to decontamination and scrap phases.

Over the years United has performed numerous demolition projects such as, plating production lines, overhead and sub-grade ventilation systems, concrete vaults, steel tanks, cooling towers, concrete slabs and entire buildings.

Contaminated Soil Excavation and Removal

United assembles and implements efficient and cost-effective contaminated soil removal programs tailored to meet specific project criteria. Services include excavation, shoring, spreading, aeration, transportation, and disposal. Since United owns it's own equipment and employs it's own operators, project scheduling is not a problem.

United has vast experience in this area, particularly on sites with limited access, over head restrictions, on rights of way, inside buildings, and on rough terrain. United maintains open accounts at a great many T.S.D.F.'s for soil burial, fixation, or thermal treatment.

Above and Below Ground Tank Removal

United Pumping Service, Inc. has complete capability of above and below ground tank removal. This capability includes unearthing, draining, washing and extraction of tanks. All work is performed in strict conformance with South Coast Air Quality Management District's Rules 1166 and 1149. Usually tanks are decontaminated and recycled for scrap, partially offsetting project cost.

The United organization has vast experience removing tanks; particularly those posing unusual challenges due to access restriction and/or time constraints.

Waste Transportation and Disposal

United transports all forms of hazardous waste, excluding radioactive, explosives and some compressed gases. The United organization provides a full line of transportation services utilizing a company owned and operated fleet of equipment. U.P.S. transports hazardous waste throughout the continental United States.

As the 63rd transporter to be licensed as a hazardous waste hauler in California, U.P.S. has the experience and where with all to get the job done regardless of the type of waste or mode of transportation. Over the past 29 years, United has success-fully completed tens of thousand of hazardous waste shipments without a release.

United clients enjoy prompt waste profiling and waste acceptance into many waste disposal facilities. Due to United's large volume as a hazardous waste agent for it's clients, U.P.S. clients typically enjoy reduced disposal fees and no profiling fees. United maintains open accounts and active-working relationships with a great many T.S.D.F.'s, thus availing its clients of vast disposal options.

Hazardous Materials Emergency Spill Response

United is fully qualified to provide emergency spill response services to its clients. The firm performs hazardous materials cleanups for clients throughout Southern California, on highways, waterways, and client facilities. United utilizes skilled, experienced field personnel and company owned equipment for rapid, safe, and efficient responses. United responds to any release except for radioactive, explosives and some compressed gases.

The firm has worked under open master purchase agreement with the State of California, Department of Transportation for this past seventeen years. During that time, United has performed approximately 2000 hazardous materials release cleanups. Many have required sub-grade and/or water way work.

Private sector projects have included rail right of way releases as well as spills resulting from fires, earthquakes, and illegal drug laboratories.

U.P.S. is capable of responding to multiple spills simultaneously. All field personnel are crossed trained in hazardous materials emergency spill response.

Regulatory Compliance/Health and Safety Program

United Pumping Service, Inc. (United) is proud of our exceptional compliance record in employee safety and in the management of hazardous waste/materials.

United staff maintains and works from an extensive federal and state regulatory data base in identifying special requirements and delineating the various options available under current regulations pertaining to the remediation and transportation of hazardous waste/materials.

United was awarded a certificate of achievement from the California Highway Patrol for maintaining a Consecutive Satisfactory Rating Since 1990. This rating is related to operational terminal biennial inspection for our compliance with applicable laws and regulations relating to motor carrier safety. We also, are proud of our consecutive Satisfactory Rating with the United States Department of Transportation.

Every project we work on involves dangerous chemicals that are not only dangerous to our employees but could damage the environment and/or the public safety. Therefore, any injured worker is required to be seen by the Company Doctor to be evaluated for chemical exposure. Additionally, all employees must participate in the company drug and alcohol screening program. You can rest assured that when one of our trucks and/or crews are handling your chemicals, they are drug free, experienced, and in fit condition for the work.

We feel that there are many factors involved in a successful safety program. At U.P.S. we have been concentrating on three main areas; 1. Specialized training for every driver and technician. 2. Experienced Personnel. 3. Well maintained equipment.

<u>We are committed to an on-going successful safety program and continuously strive for improved results.</u>

KEY PERSONNEL

The following resumes are an indication of the experience of United personnel. The United Team has decades of hands-on experience in the ever-changing field of hazardous waste/site remediation. It is their commitment and expertise, which elevates United above the competition.

Eduardo T Perry
43 Years Experience

Eduardo T. Perry, Sr. began his working career as a field laborer working long hard hours, seven days a week picking crops.

This Texan - Born in Presidio, Texas left his home state and moved to California at the age of fifteen, taking menial jobs from washing cars to a general laborer in construction. Eduardo worked at a trucking firm and eventually became manager of that company. It was at that trucking company that Eduardo's ambition to own his own business began to take shape.

With the support of his young wife, Margaret, who he met in California and coincidentally was also from Presidio, Texas they agreed to purchase a used pump truck and establish their own business, United Pumping Service, the year was 1970. First year sales was under $5,000 dollars but Eduardo's early working years instilled a work ethic of tremendous value and learning experience as the second year had explosive growth to over $42,000 in sales. As Eduardo Perry's <u>reputation</u> for high quality responsive service began to grow, so did United Pumping.

Eduardo Perry's Company, United Pumping Service, maintains the same ranch hand attitude today, providing the customer with the same <u>high quality responsive service</u> that the company was built on, and has grown from its modest beginning of under $5,000 to over $12 million dollars in sales revenue. Eduardo T. Perry, Sr. stands as President of one of the most reputable and recognized hazardous waste transporters in the State of California.

Eduardo T. Perry, Sr. is now semi-retired, however he still continues to assist in the daily operations of the company, which is now managed by his son, Eduardo C. Perry, Jr.

Margaret Perry
Vice President Sales & Marketing

Margaret Perry joined the family business 23 years ago and acts as Vice President Sales & Marketing. She oversees the company's sales program and maintains all minority/disadvantage business enterprise certifications.

Eduardo Perry, Jr.
President
38 Years Experience

A.S. 1976, Building Technology
B.A. 1979, Accounting

Management Experience

Mr. Perry's experience as a remediation contract manager has included projects throughout California. He is the company's qualifying responsible managing owner for its A-General Engineering License. Mr. Perry also maintains hazardous substances removal and remedial actions certifications and an asbestos abatement certification. Mr. Perry has overseen site remediation projects including production line decontamination /demolition and underground tank removals. Mr. Perry has supervised such projects at aerospace facilities throughout Southern California. He was primary responder on hazardous materials spills for Cal Trans, identifying and removing various chemical releases. Mr. Perry has overseen the development of specialty transportation equipment allowing greater flexibility in delivering small quantity shipments, which has resulted in increased efficiency and lower client costs. Furthermore, Mr. Perry has been responsible for oversight of all company operations, including all project management personnel. He also manages the company's legal and liability concerns. Likewise, company fiscal accounting systems including cost estimating are under Mr. Perry's control.

Recently Completed Projects

1. He has overseen all tank removal and/or replacement projects both above and below ground. He has performed decontamination/remediation projects from start to finish at Allied Signal, General Dynamics, and Lockheed facilities.

Career Highlights

o Project Manager - Cal Trans, crude oil tanker spill cleanup of 2 miles of channel. Around the clock operation, $300K Los Angeles, CA

o Project Manager - Cal Trans, Century Freeway Project, site excavation, underground tank and contaminated soil removal, $1 million plus.

o General Manager - Firm selected as Latin Business Association, established Business Of The Year 1996.

Daniel C. Perry
Vice President

25 Years Experience
UPS Grade: Senior Level

Equipment Operation Skills

Bobcat
Backhoes
Track Excavators
Rubber Tire Loaders
Track Dozers
Track Loaders
Telescopic Handlers
Excavators
Hammers
Universal Processor
Soil Compactors
Cranes
Vacuum Trucks
Roll-Off Trucks
End Dumps
Jetters

High CFM Air Moving
Vactors
Vactor Jetters
Ace Guzzlers
Super Suckers
Pres Vac

Dewatering Equipment
Coring Equipment
Plasmas Cutting Equipment
Welding
Beed Blasting
Hydro Blasting Equipment
CCTV Pipeline Video Operator

Management Experience

Mr. Perry's development as a Senior Project Manager include; research, bid review, project feasibility, and project cost estimating. His extensive experience enables him to identify tasks, determine sub-tasks and develop efficient methodology for the successful completion of projects. Mr. Perry's 24 hour emergency spill response experience and 40 hour OSHA training has enabled him to quickly determine remediation project requirements.

He is a hands-on / can- do" manager of remedial actions providing services to governmental agencies and private sector companies within the following industries; which include the aerospace, circuit board manufacturing, auto manufacturing, metal finishing, chemical manufacturing and the transportation. He is involved daily with tasks for 24 hour emergency response, personnel and equipment dispatching. He directs the cleaning and removal for the above ground and below ground storage and process tanks with their attendant over head and below ground pipe removal. He administrates the demolition, excavation, surface decontamination, hazardous waste identification, handling, segregation, storage, characterization, profiling, and transportation for disposal of waste streams. He adheres to the guidelines set forth in OSHA Title 29, CFR 1910.120, 29 CFR, 40 CFR, and 49 CFR while conducting tasks which are considered to be handling of exposed to hazardous materials, substances, and waste.

Recently Completed Projects

1. Superintendent - Los Angeles Civil Unrest Clean-up, Los Angeles, CA.. The project consisted of approximately 150 burned buildings throughout Los Angeles County. Demolition Decontamination, manifesting, transportation and disposal at approved facilities. Demolition, decontamination, manifesting, transportation and disposal at approved facilities.

2. Superintendent - Ford Assembly Plant, Milpitas, CA. The facility was 2 million square feet. Demolition, decontamination, excavation, characterization of waste for transportation and appropriate disposal.

3. Superintendent - Henry Soss Co., Los Angeles, CA./ A subsidiary of Yale Security, Inc. The facility was a 40,000 square foot hinge manufacturing and plating facility with 10 different areas. 90 above ground process & treatment tanks, approximately 300 linear feet of ventilation and scrubbing system ducting, approximately 5000 linear feet of process piping, one roof mounting ventilation scrubber, two metal dust collecting cyclones, and approximately 1000 linear feet of above head conveyance system.

4. Superintendent - Pacific Southwest Airmotive Facility Closure, San Diego, CA. The facility was a 78,000 square foot jet engine rebuilding and test facility with 66 different areas, 60 process tanks up to 4800 gallon capacity, 4 underground storage tanks up to 10,000 gallon capacity, approximately 3000 linear feet of above head and below grade ventilation and scrubbing system ducting up to 48" diameters, 175' of underground ventilation tunnel, two 45,000 cubic feet per minute and one 25,000 cubic feet per minute roof mounted ventilation scrubbers, and approximately 15,000 linear feet of process piping.

Career Highlights

o Senior Project Manager - Orange County River spill clean-up Senior Project Manager - Southern Pacific derailment fuel spill clean-up involving remedial action for hydrocarbon contaminated soil.

o Senior Project Manager - Cal Trans Newhall, CA preliminary site assessment, installed boring for monitoring wells, excavated gasoline contaminated soil, and transported to an approved disposal facility.

o Senior Project Manager - Confidential Client, Anaheim, CA Hazcat (tm) 20,000 drums for identification, transporting and disposal at approved facilities.

o Senior Project Manager - Bonanza Aluminum, Ontario, CA.. Underground clarifier removal, contaminated with corrosive materials, and plant decontamination.

Senior Project Manager - Hurst Graphics, Glendale, CA. Petroleum contaminated soil excavation, transportation and disposal at approved disposal facility.

Art Castellanos
Project Manager/ Senior Emergency Responder UPS Emergency Response Team
21 Years Experience UPS ER Team

Profile of Training
Certified Instructor OSHA-SARA (40 hour 29 CFR 1910-120 Hazardous Waste Operations and Emergency Response)
Certified Emergency Responder for Derailments
Hazcat Chemical Identification Course/Haztech Systems
Certified in Self-Contained Breathing Apparatus/Confined Space Entry
CPR & First Aid
Confined Space Entry Training Certification
Personal Protective Equipment (Selection & Use)
Air Purifying Respirators & Maintenance
Scott 60-Min. Self-contained Breathing Apparatus
Supplied Airline Mask
EPA Define Levels of Protection
Decontamination Procedures
Chemical Exposure, Body Routes of Entry
Lab packing Procedures
Compatibility & Storage of Chemicals
Hazardous Classification of Chemicals
NFPA 704M Hazard ID System
Uniform Hazardous Waste Manifest
Air Monitoring & Instrumentation
Rescue Procedures
HazCat Identification of Unknown Chemicals
EPA Sampling Methods
Forklift Operations
Safe Drum Handling Techniques
Vehicle Placarding
Federal Motor Carrier Safety Regulations
Drum & Container Transportation
Advanced Emergency Response
Instruct 8hr., 24hr., and 40hr. HAZWOPER training, Confined Space Entry training, Environmental Compliance training, PPE training, Hazardous Material Response training, and other assigned training.
Profiling, Waste Management

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Professional Experience

Supervise emergency response teams in the clean up of all liquid and solid hazardous material spills, including contaminated soil remediation, and removal of aboveground and underground storage tanks. Identify, consolidate, manifest and profile hazardous waste for transportation and disposal. Investigate unknown chemical dumping, perform field analysis. Do estimating and cost quotations, operate heavy equipment and maintain state enforced regulatory safety conditions.

Completed Projects

1. Project Supervisor - Site Closure - PSA, San Diego, CA Supervised 15 man crew, decontamination and disposal of hazardous materials, removal of underground and above ground storage tanks, profiling of waste and coordinating transportation and disposal to approved disposal facility,
drum handling, characterizing material by Hazcat.

2. Project Supervisor - Site Closure - TRW Environmental, Industry, CA Supervised 15 man crew, decontamination and disposal of hazardous materials, removal of underground and above ground storage tanks, profiling of waste and coordinating transportation and disposal to approved disposal facility, drum handling, characterizing material by Hazcat.

3. Project Supervisor - Site Closure - Ford Motor Company, Milpitas, CA Supervised 15 man crew, decontamination and disposal of hazardous material, removal of underground and aboveground storage tanks, profiling of waste and coordinating transportation and disposal to approved disposal facility, drum handling, characterizing material by Hazcat.

Don Moore
Field Supervisor / Emergency Responder UPS Emergency Response
8 Years Experience UPS ER Team
20 Years Experience in Chemical Field
Specialize in hazardous waste water pre-treatment of compound chemicals

Certified Instructor OSHA-SARA (40 hour 29 CFR 1910-120 Hazardous Waste Operations and Emergency Response)
Certified Emergency Responder for Derailments
Hazcat Chemical Identification Course/Haztech Systems
Certified in Self-Contained Breathing Apparatus/Confined Space Entry
CPR & First Aid
Specialize in Waste Water Pre-treatment, acids, and alkalines
Customer service and emergency response supervisor for 10 years with UPS ER team
Certified Instructor OSHA-SARA (40 hour 29 CFR 1910-120 Hazardous Waste Operations and Emergency Response)
Certified emergency responder for derailments Hazcat chemical Identification course/Haztech system
Certified in self-contained breathing apparatus/confined space entry
CPR & First Aid
Certified for Microsoft Excel, Power Point at Glendale College

Previous experience

TRW Cinch Graphic – 1976-1979
Position: Chemical Maintenance: Mixing acids, solvents, maintaining pumps and filter systems, operating waste water treatment systems, constructing new plumbing systems for water systems.

Crown City Plating, Inc. 1979
Temple City, Ca.
Position: Waste Treatment Operator: Maintain records of all water treatment plant, also operated forklift. (Forklift Safety I).

Printed Circuit Products Inc./Bison Technical 1979-1983
Industry, Ca.
Position: Plant Supervisor: Maintained all production records, supervised all chemical maintenance modifications, operated all pre-treatment, and waste water treatment procedures, maintained all chemical records, inventories, pumps, filter systems also limited electrical and plumbing duties. Operated forklift.

Benchmark Technology 1984-1989
Industry, Ca.
Position: Chemical Maintenance Sr. II Leadman: Supervised general maintenance of all chemical plating tanks, mixing and blending acids and alkaline solutions, maintained chemical inventory of all incoming and outgoing chemicals, (Waste disposal). Managed water treatment for industrial stream, maintained all files of on site chemicals. Improvised safety training and use of MSDS. Maintained all pumps, filter systems and new construction of chemical areas.

Professional experience:
Supervise emergency response teams in the clean up of all liquid and solid hazardous material spills, including contaminated soil remediation, and removal of above ground and underground storage tanks. Identify, consolidate, manifest and profile hazardous waste for transportation and disposal. Investigate unknown chemical dumping, perform field analysis. Do estimating and cost quotations, operate heavy equipment and maintain state enforced regulatory safety conditions.

Storm Water Division, Project Manager
Worked on the 1998 CalTrans storm drain inspection and cleaning project. Directing and supervising crews on safety aspects of traffic control and confined space entry. Coordinate the workflow and maintain records for the state.

Sales and Marketing of company services through the Internet.

REFERENCES

Burns & McDonnell/Metro Link
400 Oyster Point Blvd., suite 533
South San Francisco, Ca 94080
Attn: Mitch Monroe
Ph: 650/ 871-2926 ext. 250
Cell #650/ 255-4323
Scope of Work: Emergency Spill Response-On Call Services for Metrolink

Pacific Bell (AT&T)
7240 Johnston Drive
Pleasanton, CA 94588
Contact: Robert Acornero
Ph: 925/ 416-8930
Scope of Work: Emergency Spill Response, Drum Cleaning, Used Oil & Antifreeze Removal, Used Oil Filters/Absorbent, Vacuum and associated Services.
.

Los Angeles County ISD
1100 Eastern Ave.
Los Angeles, CA 90063
Contact: Manuel Hernandez
Ph: 323/ 881-3953
Scope of Work: Pick up, transportation and disposal of hazardous and non hazardous waste, emergency response

Los Angeles County ISD - Fire Dept.
1100 N. Eastern Ave.
Los Angeles, CA 90063
Contact: Greg Watkins
Ph: 818/ 890-5731
Scope of Work: Hazardous Material and Waste Services Septic Tanks & Clarifiers

Honeywell
2525 W. 190th Street
Torrance, CA 90504
Contact: Eric Sramek
Ph: 310/ 512-4570
Scope of Work: Pick up, transportation and disposal of hazardous & non hazardous waste.

PSC Environmental Services, LLC
Mcleansville, NC
Attn: Al Bouldin-Nat’l Manager of Emergency Response
Ph: 336/ 954-5433
Cell: 336/ 215-9719
Scope of Work: Emergency spill response.

Union Pacific Railroad Co.
2401 E. Sepulveda Blvd.
Long Beach, CA 90810
Attn: Mike Villa-Real
Ph: 562/ 490-7045
Scope of Work: Pick up, transportation and disposal of hazardous & non hazardous waste, emergency response,

Los Angeles County Sanitation District
13130 Crossroads Pkwy South
City of Industry, , CA 91746
Contact: Louis Llerena
Ph: 562/ 699-6028 ext. 6119
Scope of Work: Pumping out condensate water as directed at 1955 Workman Mill Rd., Whittier, CA

Metropolitan Transit System
Bus Operations
100 16th Street
P.O. Box 122511
San Diego, CA 92112-2511
Contact: Frank Toth
Ph: 619/ 843-4253
Scope of Work: Hazardous material pick up and disposal.

More Upon Request

CONCLUSION

Throughout this statement of qualifications, we have shown that United Pumping Service, Inc. is a fully qualified, hazardous waste and remediation contractor. With a background of 25 years in hazardous waste and 14 years in solving clients remedial action problems, U.P.S. brings extensive "hands on" experience to each project.

U.P.S. has successfully completed more than 900 remediation and/or emergency response projects for clients in petroleum, chemical, aerospace, heavy manufacturing, and the public sector. U.P.S. has established a track record of bringing in projects on time and within budget.

United's success is due in large part to it's ability to maintain contracts with many customers (particularly aerospace firms) for extended terms. The company's success in this area is due to United's ability to maintain a superior level of service. United has maintained many of it's clients for as long as 15 to 20 years through it's commitment to satisfying the customer.

Thus, United Pumping Service, Inc.'s hands on experience, technical expertise and practical know-how assure sound performance of hazardous waste and remediation activities for your company or client. United Pumping Service, Inc. is clearly your best choice to help meet your hazardous waste and remediation needs.

Jason Flowers

From: Page Beykpour <p.beykpour@cgroxane.com>
Sent: Monday, August 24, 2015 11:56 AM
To: Jason Flowers; Mark Grivetti
Subject: FW: Tiered Permitting for CERS ID 10128880 Accepted By Regulator

---

From: George Castaneda <g.castaneda@cgroxane.com>
Date: Monday, August 24, 2015 9:32 AM
To: Desktop Page <p.beykpour@cgroxane.com>
Subject: FW: Tiered Permitting for CERS ID 10128880 Accepted By Regulator

George J. Castaneda, Jr
CG Roxane, LLC
Corporate Quality Control Manager
Olancha, Ca 93549
760 764-1813
Cell 760 920-3527
Fax 760 764-2157

CELEBRATING 25 YEARS CRYSTAL GEYSER NATURAL ALPINE SPRING WATER BY CG ROXANE 1990 - 2015

From: CERS Automated Messaging - DO NOT REPLY [mailto:DoNot.ReplyTo.Cers@calepa.ca.gov]
Sent: Sunday, August 23, 2015 2:29 PM
To: George Castaneda <g.castaneda@cgroxane.com>
Subject: Tiered Permitting for CERS ID 10128880 Accepted By Regulator

Your **Tiered Permitting** submittal on *June 29, 2015* for *CG Roxane LLC* (CERS ID 10128880) was **Accepted** by Inyo County Department of Environmental Health Services on August 23, 2015. This indicates the regulator has reviewed the submittal element and finds the data/documents meet state and local reporting requirements. The regulator has not necessarily field-verified the submitted data. Any comments from the regulator are shown below.
Facility Name: CG Roxane LLC
CERS ID: 10128880
Facility Address: 1210 US 395, Olancha, CA 93549

This is an automated email sent from the CERS System. Please DO NOT REPLY.

APPENDIX B

ARSENIC POND WASTE DISPOSAL DOCUMENTATION

Liquid Waste Manifests and Profile

A Non-Hazardous Waste Facility

Return to:
Email: profiling@starlitewaste.com
Fax: (909) 434-0618

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278
www.starlitewaste.com

GENERATOR'S WASTE MATERIAL PROFILE SHEET	PROFILE NUMBER
NEW ☒ RENEW ☐ AMENDED ☐	SR15-657

SRES Use Only: NR ☐ MS ☐ OS ☐ ORGS ☒

GENERATOR		BILL TO	
Name:	CRYSTAL GEYSER	Name:	UNITED PUMPING SERVICE, INC.
Address:	1210 US-395	Address:	14000 E. Valley Blvd.
City:	Olancha State: CA Zip: 93549	City:	Industry State: CA Zip: 91746
Contact:	George Castaneda Ph:	Contact:	Accts. Payable
E Mail:	760-764-1813	E Mail:	
Shipping Contact:	Ph:	Ph:	626/961-9326 Fax:

TRANSPORTER		TRANSPORTER	
Name:	United Pumping service	Contact:	Customer Service
Address:	14000 E. Valley Blvd.	Phone:	626/961-9326
City:	Industry State: CA Zip: 91746	Fax:	

WASTE DESCRIPTION – (Clarifier water, rain water, food process water, etc...)

Water Treatment

CHEMICAL & PHYSICAL STATE

Liquid ☒	Multi-layered ☐	Odor: None ☒	Mild ☐	Strong ☐
Semi-Liquid ☐	Bi-layered ☐	Color: Clear		
Solid ☐	Single Phase ☒	Flash Point: >200° F	Yes ☒	No ☐
pH		% of Solids: 10%		

pH: ☐ <2 ☐ 2-4 ☐ 4-6 ☒ 6-8 ☐ 8-10 ☐ 10-12 ☐ >12.5 ☐ N/A

PROFILE HISTORY

Has this waste ever been shipped as a Haz waste? Yes ☐ No ☒

If YES, explain:

Is this waste defined as a Non-Hazardous waste? Yes ☒ No ☐

MANUFACTURING/PROCESS DESCRIPTION

Describe type of manufacturing/company and process generating waste stream. Include a list of virgin material and their Material Safety Data Sheets

Yearly Water Treatment Flush

CHEMICAL CONSTITUENTS

Water	100 %
	%
	%
	%

METALS (ppm)

Antimony	< 15	Chromium	< 560/5 liq.	Molybdenum	< 350
Arsenic	< 5.0	Cobalt	< 80	Nickel	< 20
Barium	< 100	Copper	<25	Selenium	<1.0
Beryllium	< 0.75	Lead	< 5.0	Silver	< 5.0
Cadmium	< 1.0	Mercury	<0.2	Thallium	< 7.0
Vanadium	< 24	Zinc	< 250		

SHIPPING INFORMATION

Shipping Method: Vector ☐ Vac Truck ☒ Dry Van ☐ Totes ☐ Drums ☐ Roll Off ☐ Volume (gallons/tons): 50,000

Generator's Self-Certification:

The following assessment of non-hazardous waste is based on personal and generator knowledge of the waste constituents and the process that generated the waste. In addition, I have reviewed the waste characteristics in accordance with the California Code of Regulation, Title 22 and the appropriate sections of 40 Code of Federal or State statutes as hazardous waste. I am self-certifying this waste as non-hazardous for the purpose of disposal in the State of California.
I have included with this generator self-certification a detailed description of the waste material and the generating process as well as all supporting documentation.
I certify that the information contained in this generator self-certification and the Non-Hazardous Waste Profile Data Sheet is true, correct and accurate, this date as indicated by my signature.

Signed on Behalf of Generator ☒

Print Name: A. Castenanos on behalf Crystal Geyser Authorized Signature: [signature] Date: 5/7/15

FOR SRES FACULTY ONLY

Notes:

Approved By: [signature] Title: CEO Date: 5/7/15

5/15

FIELD WORK ORDER

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

UNITED STORM WATER, Inc.
Protecting Our Water Resources

109357

SWO37234-1

Onsite Date: 05/14/15
Onsite Day: Thursday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46040
Customer PO No.:
Service Contract.:

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/13/15 115885

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S S Jesus Maimenrama	1	0300	0700	1600	2015				
G104A	VACUUM TRK-120 BBLS S S (OT) TRK# 264/T-16	1								
G708	TRANS & DISPOSE (PH11) upto 8% solids	1								
G702A	WASH OUT 5/15 DISPOSAL EDG # 240	1	0930	1030	1245	1345				

Manifest No.	Disposal Site	Qty	Misc. Equipment
107967	STARLITE	1 X LOAD	1 X PPE

Printed Name: George Castaneda, Jr. Signature: [signature] Date: 05/14/15

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 35 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

T-6

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	107967

3. Generator's Name and Mailing Address
CRYSTAL GEYSER
1210 US-395
OLANCHA, CA

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
UNITED PUMPING SERVICE, INC.	CAD072953771	626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
STARLITE RECLAMATION ENV. SERVICES 11225 MULBERRY AVE FONTANA CA 92337		(800) 576-9278

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE LIQUID (WATER)	1	TT	4500	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
11A. SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
24-HR. EMERGENCY PH: 626/ 961-9326 WEAR APPROPRIATE PROTECTIVE EQUIPMENT
WO # 37234-1

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
George Castaneda Jr.	[signature]	05	14	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JESUS VALDERRAMA	[signature]	05	14	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278

Receiving Ticket # 8205
A Non Hazardous Waste Facility

Date: 5-15-15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids:_______ Totes:_______ Drums:_______ Other:_______

Waste Description: Non Haz waste Scale Only:_______

Profile Match: Yes ✓ No_______ Rejected _______

Additional Generators:_______

Generator: Crystal Geyser Profile#: SR 15-657

Site Address:_______ Manifest#: 107467

Vin#:_______

Transporter: United Pumping Washout Time in: 15 MAY 15 PM 12:28

Broker (if any)_______ Washout Time Out:_______

Solids %:_______ Oil %:_______ Container: 15 MAY 15 PM 12:32

pH: 11.8 TDS: 1544 ppm BOD:_______ COD:_______

License: Truck: 240 Trailer: T 16

Weight Master: Jorge Paya (Print Name) (Signature)

Net Tons:_______

X240_______Gallons

Truck ID 8205
11:11 am 05/15/15
Weigh In 74960 lb

Truck ID 8205
12:34 pm 05/15/15
Weigh Out
Gross 74960 lb
Tare 35460 lb
Net 39500 lb

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

FIELD WORK ORDER

SWO37197-1

109229

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

UNITED STORM WATER, Inc.
Protecting Our Water Resources

Onsite Date: 05/11/15
Onsite Day: Monday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46003
Customer PO No.: ______
Service Contract: ______

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/08/15 115757

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD

Sup. Sig. and Print Name ______

Job Site Location:

Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-830-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S.	1								
	JESUS BAMERRANA		0200	0700	1115					
G104A	VACUUM TRK-120 BBLS S.S (OT)	1								
	TRK# 265/T-16			1730	1815	1920				
G706	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

(Down time 10:30 – 1145)

UNITED

Manifest No.	Disposal Site	Qty	Misc. Equipment
112300	STARLITE ENVIROMENTAL	1XLOAD	1XPPE

Printed Name: George Castaneda Signature: Geo J Castaneda Date 05/11/2015

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	Manifest Document No. 112300	2. Page 1 of 1	112300

3. Generator's Name and Mailing Address
Crystal Geyser
1210 US Hwy. 395
Olancha, CA. 93549

4. Generator's Phone ( ) 760-764-1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
United Pumping Service, Inc.	CAD072953771	626/961-9326
7. Transporter 2 Company Name	**8. US EPA ID Number**	**B. Transporter's Phone**
9. Designated Facility Name and Site Address	**10. US EPA ID Number**	**C. Facility's Phone**
Starlite Reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337		909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	4800	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
11a.#SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326
Wear Proper PPE
WO# SW037197-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda	[signature]	05	11	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Jesus Maincunama	[signature]	05	11	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	Hector Lopez	5	11	15

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC. 1-800-576-9278

Receiving Ticket # 8077

A Non Hazardous Waste Facility

Date: 5-11-15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: ______ Totes: ______ Drums: ______ Other: ______

Waste Description: Non haz liquid Scale Only: ______

Profile Match: Yes ✓ No ______ Rejected ______

Additional Generators: ______

Generator: Crystal Geyser Profile#: SR15-657

Site Address: 1210 US Hwy. 395 Olancha, CA 93549 Manifest#: 117300

Vin#: ______

Transporter: United pumping Washout Time in: '15 MAY 11 PM6:05

Broker (if any) ______ Washout Time Out: '15 MAY 11 PM6:09

Solids %: Ø Oil %: Ø Container: ______

pH: 10.9 TDS: 165 5 ppm BOD: ______ COD: 190.3 ppm

License: Truck: 265 Trailer: T16

Weight Master: Hector lopez (Print Name) Hector Lopez (Signature)

Net Tons: ______ X240 ______ Gallons	Truck ID 8077 05:34 pm 05/11/15 Weigh In 74780 lb Truck ID 8077 06:10 pm 05/11/15 Weigh Out Gross 74780 lb Tare 36960 lb Net 37820 lb

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

414

FIELD WORK ORDER

SWO37207-1

UNITED STORM WATER, Inc.
Protecting Our Water Resources

14000 East Valley Blvd. · City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

109268

Payment Terms Code NET30

Salesperson Code: RAM

Date: 05/11/15 115-R4

Onsite Date: 05/12/15
Onsite Day: Tuesday
Onsite Time: 0800
Account No.: CRYGEY10000
Quote No.: SWQ46013
Customer PO No.: ____________
Service Contract: ____________

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD

Sup. Sig. and Print Name ____________

Job Site Location:

Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer

Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name **RAMON MENJIVAR**
Cell Phone **626-890-7104**

Scope of Work

Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S.	1								
	Daniel Hurtado 246-T-17		0315	0800	1030	1830				
G104A	VACUUM TRK-120 BBLS S.S.(OT)	1								
				1600	1715	1820				
G708	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

Manifest No.	Disposal Site	Qty	Misc. Equipment
113103	Starlighte	5,000G	

Printed Name: Pierre Boulier Signature: [signature] Date: 05/12/2015

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 30 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

www.unitedstormwater.com

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	
Manifest Document No.	113103
2. Page 1 of	1
	113103
3. Generator's Name and Mailing Address	Crystal Geyser 1210 US Hwy. 395 Olancha, CA. 93549
4. Generator's Phone ( )	760/764-1813
5. Transporter 1 Company Name	United Pumping Service, Inc.
6. US EPA ID Number	CAD072953771
A. Transporter's Phone	626/961-9326
7. Transporter 2 Company Name	
8. US EPA ID Number	
B. Transporter's Phone	
9. Designated Facility Name and Site Address	Starlite reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337
10. US EPA ID Number	
C. Facility's Phone	909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	5000	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
11a. #SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326 SWO# 37207-1
Wear Proper PPE

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
Pierre Bozelia	[signature]	05	12	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Daniel Hurtado	[signature]	05	15	

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepeancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector lopez	[signature]	5	12	15

GENERATOR TRANSPORTER FACILITY

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
800-576-9278

Receiving Ticket # 8110
A Non Hazardous Waste Facility

Weighed at:
Date: 5-12-15

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: ______ Totes: ______ Drums: ______ Other: ______

Waste Description: Non haz liquid Scale Only: ______

Profile Match: Yes ✓ No ______ Rejected ______

Additional Generators: ______

Generator: Crystal Geyser
Profile#: SR15-657

Site Address: 1210 US Hwy. 395 Olancha, CA 93549
Manifest#: 113103

Vin#: ______

Transporter: United pumping
Washout Time in: 15 MAY 12 PM5:04

Broker (if any) ______
Washout Time Out: 15 MAY 12 PM5:17

Solids %: 25%
Oil %: Ø
Container: ______

pH: 10.9
TDS: 1660
BOD: ______
COD: 190.9

License: Truck: 246
Trailer: T17

Weight Master: Hector lopez (Print Name)
Hector lopez (Signature)

called AITE approved ??? solids to ???	Truck ID 8110 04:05 pm 05/12/15 Weigh In 75780 lb Truck ID 8110 05:13 pm 05/12/15 Weigh Out Gross 75780 lb Tare 37340 lb Net 38440 lb
Net Tons: ______ X240 ______ Gallons	

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

JB

UNITED STORM WATER, Inc.
Protecting Our Water Resources

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

FIELD WORK ORDER

109267

SWO37206-1

Onsite Date: 05/12/15
Onsite Day: Tuesday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46012
Customer PO No.:
Service Contract.:

Payment Terms Code NET30
Salesperson Code: RAM
Date: 05/11/15 115295

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD

Sup. Sig. and Print Name

Job Site Location:

Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose
. See George Castaneda onsite

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O. T. Time	Total Hours	Price
G104 2	VACUUM TRK-120 BBLS S.S. Jesus Navarrama	1	0300	0700	0945					
G104A	VACUUM TRK-120 BBLS S.S.(OT) TRK# 256 / T-10	1								
G706	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1	1520	1630	1800					

UNITED

Manifest No.	Disposal Site	Qty	Misc. Equipment
113104	STARLITE ENVIROMENTAL	1 X LOAD	1 X PIPE

Printed Name: Kevin Boulier Signature: Date 05/12/2015

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 30 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

www.unitedstormwater.com

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No,	Manifest Document No. 113104	2. Page 1 of 1	113104

3. Generator's Name and Mailing Address
Crystal Geyser
1210 US Hwy. 395
Olancha, CA. 93549

4. Generator's Phone ( ) 760/764-1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
United Pumping Service, Inc.	CAD072953771	626/961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Starlite Reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337		909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	4800	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
11a. SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326
Wear Proper PPE
WO#37206-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
Pyeu Boulia		05	12	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Jesus Balderrama	Jesus Balderrama	05	12	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	Hector Lopez	5	12	15

GENERATOR
TRANSPORTER
FACILITY

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278

Receiving Ticket # 8107
A Non Hazardous Waste Facility

Weighed at:

Date: 5/12/15

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ______ Bulk Solids: ______ Totes: ______ Drums: ______ Other: ______

Waste Description: Non Haz waste Scale Only: ______

Profile Match: Yes ✓ No ______ Rejected ______

Additional Generators: ______

Generator: Crystal Geyser Profile#: SRES-657

Site Address: ______ Manifest#: 113104

Vin#: ______

Transporter: United Pumping Washout Time in: '15 MAY 12 PM 4:16

Broker (if any) ______ Washout Time Out: '15 MAY 12 PM 4:20

Solids %: 10% Oil %: Ø Container: ______

pH: [illegible] TDS: [illegible] ppm BOD: ______ COD: [illegible]85.2 ppm

License: Truck: 265 Trailer: T16

Weight Master: Hector Lopez (Print Name) Hector Lopez (Signature)

Net Tons: ______

X240 ______ Gallons

Truck ID 8107
03:22 pm 05/12/15
Weigh In 76020 lb

Truck ID 8107
04:24 pm 05/12/15
Weigh Out
Gross 76020 lb
Tare 36740 lb
Net 39280 lb

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

FIELD WORK ORDER

SWO37215-1

109308

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

UNITED STORM WATER, Inc.
Protecting Our Water Resources

Onsite Date: 05/13/15
Onsite Day: Wednesday
Onsite Time: 0700
Account No.: CRYGEY10000
Quote No.: SWQ46021

Payment Terms Code NET30
Salesperson Code: RAM
Date: 05/12/15 115836

Customer PO No.: ____________
Service Contract.: ____________

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD
Sup. Sig. and Print Name ____________

Job Site Location:
Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer
Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-890-7104

Scope of Work
Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O. T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S. Jesus Manzanares	1	0200	0600	1015					
G104A	VACUUM TRK-120 BBLS S.S.(OT) TRK# 246-T-16	1		1545	1650	1815				
G708	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

Manifest No.	Disposal Site	Qty	Misc. Equipment
113105	STARLITE	1XLOAD	1XPPE

Printed Name: George Castaneda, Jr Signature: Geo Castaneda Jr. Date: 05/13/15

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 35 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

www.unitedstormwater.com

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No,	Manifest Document No. 113105	2. Page 1 of 1	113105

3. Generator's Name and Mailing Address: Crystal Geyser, 1210 US Hyw. 395, Olancha, CA. 93549

4. Generator's Phone ( ) 760/764-1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
United Pumping Service, Inc.	CAD072953771	626/961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Starlite Reclamation Services, 11225 Mulberry Ave., Fontana, CA. 92337		909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1	TT	4.8W	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above: 11a. #SR15-657

E. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information
Emergency Contact 626/961-9326
Wear Proper PPE
UW# SW# 37215-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castañeda Jr	[signature]	05	13	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Jesus Valdenrama	[signature]	05	13	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepeancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	[signature]	5	13	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #1

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278

Receiving Ticket # 8149
A Non Hazardous Waste Facility

Date: 5-13-15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids: ____ Totes: ____ Drums: ____ Other: ____

Waste Description: Non haz liquid Scale Only: ____

Profile Match: Yes ✓ No ____ Rejected ____

Additional Generators: ____

Generator: Crystal Geyser Profile#: SR15-657

Site Address: ____ Manifest#: 1113105

____ Vin#: ____

Transporter: United pumping Washout Time in: 15 MAY 13 PM4:38

Broker (if any) ____ Washout Time Out: 15 MAY 13 PM4:43

Solids %: 25% Oil %: Ø Container: ____

pH: 11.0 TDS: 1160.3 ppm BOD: ____ COD: 184.3 ppm

License: Truck: 246 Trailer: T16

Weight Master: Hector lopez ____ Hector lopez

(Print Name) (Signature)

Net Tons: ____ X240 ____ Gallons	Truck ID 8149 03:51 pm 05/13/15 Weigh In 60740 lb Truck ID 8149 04:46 pm 05/13/15 Weigh Out Gross 60740 lb Tare 35980 lb Net 24760 lb

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

FIELD WORK ORDER

SWO37216-1

14000 East Valley Blvd. • City of Industry, CA 91746-2801
(877) 71-STORM • Fax (626) 961-3166

UNITED STORM WATER, Inc.
Protecting Our Water Resources

109309

115838

Onsite Date: 05/13/15
Onsite Day: Wednesday
Onsite Time:
Account No.: CRYGEY10000
Quote No.: SWQ46022

Payment Terms Code NET30
Salesperson Code: RAM

Date: 05/12/15

Customer PO No.: ________________
Service Contract.: ________________

I UNDERSTAND & READ THE CONTENTS OF THE WORK ORD

Sup. Sig. and Print Name ______________________________

Job Site Location:

Crystal Geyser
1210 US-395
Olancha, CA 93549
George J Castaneda

Bill To Customer

Crystal Geyser
1210 US-395
Olancha, CA 93549

Salesperson Name RAMON MENJIVAR
Cell Phone 626-850-7104

Scope of Work

Pump water and transport to Starlite for disposal take 60' of 3" hose.
. See George Castaneda onsite.

Goods No.	Description	No. of Units	Start Time	Arrive Time	Time Out	Stop Time	S.T. Time	O.T. Time	Total Hours	Price
G104	VACUUM TRK-120 BBLS S.S.	1								
	H. Gutierrez 247 T-17		0200	0630	0845					
G104A	VACUUM TRK-120 BBLS S.S.(OT)	1		1315	1445	1600				
G708	TRANS & DISPOSE (PH11) upto 8% solids.	1								
G702A	WASH OUT	1								

Manifest No.	Disposal Site	Qty	Misc. Equipment
113108	Starlite	4500 G.	Gloves 1pr

Printed Name: George Castaneda Signature: Geo J Castaneda Jr. Date 05/13/15

Terms: Net Cash: Due and payable in full 30 days after the date of invoice, delinquent after 35 days, and subject to C.O.D. after 45 days, late charge 1 - 1/2% per month shall be applied to all delinquent accounts. Failure to pay shall allow United Storm Water, Inc. to charge all the cost of collection; including reasonable attorney fees and commissions whether incurred prejudgment or post judgement.

NON-HAZARDOUS WASTE MANIFEST

113106

1. Generator's US EPA ID No.	
Manifest Document No.	113106
2. Page 1 of	1
3. Generator's Name and Mailing Address	Crystal Geyser 1210 US Hwy. 395 Olancha, CA. 93549
4. Generator's Phone	760/764-1813
5. Transporter 1 Company Name	United Pumping Service, Inc.
6. US EPA ID Number	CAD072953771
A. Transporter's Phone	626/961-9326
7. Transporter 2 Company Name	
8. US EPA ID Number	
B. Transporter's Phone	
9. Designated Facility Name and Site Address	Starlite Reclamation Services 11225 Mulberry Ave. Fontana, CA. 92337
10. US EPA ID Number	
C. Facility's Phone	909/434-0480

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. (Water) Non Hazardous Waste Liquid	1.	TT	4.5.0.0	G
b.				
c.				
d.				

D. Additional Description for Materials Listed Above

11a. #SR15-657

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact 626/961-9326
Wear Proper PPE wc 37216

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda	[signature]	05	13	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Horacio Quiñon	[signature]	05	13	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Hector Lopez	[signature]	5	13	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #1

United Pumping

STARLITE RECLAMATION ENVIRONMENTAL SERVICES INC.
1-800-576-9278

Receiving Ticket # 8139
A Non Hazardous Waste Facility

Date: 5/13/15

Weighed at:

11225 Mulberry Avenue, Fontana, CA 92337 Ph (909) 434-0480

Bulk Liq: ✓ Bulk Solids:_______ Totes:_________ Drums:_________ Other: ____________

Waste Description: Non haz waste Scale Only:____________________

Profile Match: Yes ✓ No________ Rejected _________

Additional Generators: ______________________________

Generator: Crystal Grape Profile#: SR 15-657

Site Address:____________________ Manifest#: 113166

______________________________ Vin#: ____________________

Transporter: United Pump Washout Time in: '15 MAY 13 PM2:30

Broker (if any) ____________________ Washout Time Out: '15 MAY 13 PM2:37

Solids %: 25% Oil %: 0 Container: ____________________

pH: 11.00 TDS: 162.2 BOD: ______________ COD: 186.5

License: Truck: 247 Trailer: T17

Weight Master: Hector Lopez (Print Name) Hector Lopez (Signature)

Net Tons:____________ X240__________Gallons	Truck ID 8139 01:42 pm 05/13/15 Weigh In 51720 lb Truck ID 8139 02:36 pm 05/13/15 Weigh Out Gross 51720 lb Tare 36720 lb Net 15000 lb

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

Sediment Waste Manifests and Profile

SOUTH YUMA COUNTY LANDFILL

EPA#AZR000506980 A CERCLA APPROVED FACILITY
19536 S. AVE 1E, YUMA, AZ 85366
(928) 341-9300 Fax: (928) 341-8454
Website: syclandfill.com

GENERATOR WASTE PROFILE SHEET

WASTE PROFILE # C-3159

PLEASE COMPLETE ALL SECTIONS

I. GENERATOR INFORMATION

DATE: 5/22/15

GENERATOR NAME: CG ROXANNE LLC			
GENERATOR SITE ADDRESS: 1210 Hwy 395			
CITY: Olancha	COUNTY:	STATE: CA	ZIP: 93549
GENERATOR MAILING ADDRESS: SAME			
CITY:	COUNTY:	STATE:	ZIP:
GENERATOR CONTACT NAME: Tony Moore			
PHONE NUMBER: 760/764=1813	FAX NUMBER:	Email:	

II. TRANSPORTER INFORMATION

TRANSPORTER NAME: United Pumping Service, Inc.	Contact Name: Art/Ramon		
TRANSPORTER ADDRESS: 14000 E. Valley Blvd.			
CITY: Industry	COUNTY:	STATE: CA	ZIP: 91746
TRANSPORTER CONTACT NAME:			
PHONE NUMBER: 626/961-9326	FAX NUMBER:	Email:	

III FINANCIAL RESPONSIBILITY (Billing Information)

NAME OF OWNER, PARTNER(S) OR CORPORATE OFFICER(S)			
NAME: United Pumping Service	TITLE:	CELL#:	E-MAIL
BILLING ADDRESS: 14000 e. Valley	ADDRESS #2:	CITY Industry	STATE & ZIP 91746

IV. WASTE STREAM INFORMATION

NAME OF WASTE: Soil/sediments

PROCESS GENERATING WASTE: Pond cleaning from waste water treatment

TYPE OF WASTE: ☒ INDUSTRIAL ☐ POLLUTION CONTROL WASTE ☐ OTHER

PHYSICAL STATE: ☒ SOLID ☐ SEMI-SOLID ☐ LIQUID ☐ OTHER:

METHOD OF SHIPMENT: ☒ BULK ☐ DRUM ☐ BAGGED ☐ TOTES ☐ OTHER:

ESTIMATED ANNUAL QUANTITY: 75 ☒ CUBIC YARDS ☐ TONS ☐ GALLONS ☐ OTHER:

FREQUENCY: ☐ ONE TIME ONLY ☐ WEEKLY ☐ MONTHLY ☒ OTHER:

SPECIAL HANDLING INSTRUCTIONS: Gloves, eye protection

V. PHYSICAL CHARACTERISTICS OF WASTE

	CHARACTERISTIC COMPONENTS	% BY WEIGHT (RANGE)
1.	Soil	90%
2.	Sediment	10%
3.		
4.		

V. Continued

WASTE PROFILE #

Color	Odor (describe)	Liquids	% Solid	Ph:	Flash Point:
Bwn	None	YES NO X	100	Solid	200

VI. WASTE CHARACTERIZATION

Is there asbestos-containing material in the waste as defined by 40 CFR 61.141? If yes, ☐ Friable ☐ Nonfriable	YES	X NO
Is the waste petroleum contaminated soil as defined in ARS 49-851.A.3? If yes, is supporting analytical data attached for BTEX compounds (Method 8260) and PAH compounds (Method 8310)? ☐ Yes ☐ No	YES	NO X
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCB's) as defined in 40 CFR 761?	YES	X NO
Does this waste contain radioactive materials as defined by ARS 49-701.01(B)(2)?	YES	X NO
Is the waste a biohazardous medical waste as defined by AAC R18-13-1401(5)?	YES	X NO
Is the waste used oil as defined by 40 CFR 279.1, not subject to an exemption listed in 40 CFR 279.10?	YES	X NO
Is this waste generated at a Federal Superfund clean-up site?	YES	X NO
Is the waste exempt from hazardous waste regulations as from a source listed in 40 CFR 261.4(b)? Examples include waste from households; fossil fuel combustion waste; oil, gas, and geothermal wastes; mining and mineral processing wastes; trivalent chromium wastes; cement kiln dust; arsenically treated wood; petroleum contaminated media & debris from underground storage tank cleanup; and used oil filters.	YES	NO X
Has the waste been generated from a common manufacturing or industrial practice listed in 40 CFR 261.31 (F-list)? Examples include spent solvents, wastes from electroplating and metal finishing, dioxin-bearing wastes, chlorinated aliphatic hydrocarbon wastes, certain wood preserving wastes, and petroleum refinery wastewater treatment sludges.	YES	NO X
Has the waste been generated from a specific manufacturing or industrial process listed in 40 CFR 261.32 (K-list)? Examples include certain wastes from wood preservation, manufacturing organic, inorganic, and pesticide chemicals, petroleum refining, manufacturing of certain pigments, explosives, iron, steel, aluminum, and primary aluminum production, ink formulation, and coal coking wastes.	YES	NO X
Does the waste contain a pure or commercial grade formulation of an unused chemical product listed in 40 CFR 261.33 (P and U lists)?	YES	NO X
Is the waste an ignitable waste as defined by 40 CFR 261.21? Examples include liquids with a flashpoint above 140 °F, DOT designated oxidizers, and wastes that can spontaneously catch fire under normal handling conditions.	YES	NO X
Is the waste a corrosive liquid as defined by 40 CFR 261.22? Corrosive wastes commonly have a pH of less than 2 or greater than 12.5.	YES	X NO
Is the waste a reactive waste as defined by 30 CFR 261.23? Examples include wastes that can explode, violently react, or generate hazardous fumes, when exposed to water or under normal handling conditions, generates sulfide or cyanide gas when exposed to pH<2 or >12.5 conditions.	YES	NO X
Is the waste a toxic waste as defined by 40 CFR 261.24?	YES	NO X

VII. BASIS OF DETERMINATION (Check one or both)

☐ Generator knowledge. The generator has applied knowledge of the hazardous characteristics of the waste in light of the materials or the processes used in generating the waste as described in section IV and consistent with 40 CFR 262.11(c)(2). Attach MSDS sheets, as appropriate.

☒ Analytical data. A representative sample as defined in 40 CFR 260.10 has been collected consistent with 40 CFR 261.20(c) or an equivalent method and tested consistent with 40 CFR 262.11(c)(1) with results attached. Liquid wastes require analytical data.

VIII. GENERATOR CERTIFICATION

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the waste material being offered for disposal. I have made reasonable efforts to ensure that wastes collected from third parties have been appropriately screened and accurately characterized for waste types that are unacceptable at South Yuma County Landfill. I further certify that by utilizing this profile, neither I nor any other employees of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as hazardous waste, medical or infectious waste, or any other waste material South Yuma County Landfill is not permitted to accept. Our company hereby agrees to fully indemnify South Yuma County Landfill against any damages resulting from this certification being inaccurate or untrue.

A. Castellanos on behalf C G Roxanne
AUTHORIZED REPRESENTATIVE NAME & TITLE (PRINTED)

United Pumping
COMPANY NAME

[signature]
AUTHORIZED REPRESENTATIVE SIGNATURE

5/25/15
DATE

IX. SOUTH YUMA COUNTY LANDFILL DECISION

__REJECTED ___APPROVED RATE_____ EXPIRATION__________

CONDITIONS:

APPROVER SIGNATURE DATE APPROVER SIGNATURE DATE

YUMA - [illegible]

SOUTH YUMA COUNTY LANDFILL

AUTHORIZATION FOR THIRD-PARTY WASTE PROFILING

Date: 5/22/15

Note: This Authorization is only valid for 3 years from the above date.

To Whom It May Concern:

Please be advised that the following company/individual has been appointed to work as our agent for purposes of managing waste materials that we may generate.

Name of Authorized Agent RAMON MENJIVAR	Title SALES
Name of Authorized Company UNITED PUMPING SERV.	Telephone Number 626-961-9326

The above broker/individual is authorized to act as our authorized agent for the following purposes:

- [X] Profile waste characteristics of specific wastes generated by us and complete and certify Generator Waste Profile Sheets.
- [ ] Sign contracts to dispose and/or transport material.
- [ ] Provide supplemental information and sign certifications necessary to comply with South Yuma County Landfill profile approval requirements.
- [X] Sign manifests to initiate shipment to disposal facilities.

I agree to provide the authorized agent with any specific generator knowledge of processes generating waste as is necessary for the agent to adequately profile generated wastes. Our authorized agent will notify us prior to any action stated above, and will provide us with copies of any documents bearing our name.

Name of Company Generating Waste CGRoxane LLC	Mailing Address PO Drawer 'A'
Generator Contact (Print Name) George Castañeda, Jr	Title Corp Quality Control Manager
Signature Geo / Castañeda, Jr.	Telephone Number 760 764-1813

MAR-2015

17860 DW-628 (K)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

113344

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764.1813

5. Transporter 1 Company Name: UNITED PUMPING SERVICE, INC.	6. US EPA ID Number: CAD072953771	A. Transporter's Phone: 626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address: SOUTH YUMA COUNTY LANDFILL, 19536 S. AVE. 1E, YUMA AZ 85366	10. US EPA ID Number: AZR000506980	C. Facility's Phone: 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	1	CM	18	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3169

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

WO 37385-2

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
X George Castañeda, Jr	X Geo/Castañeda Jr	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
JORGE RIVAS	Jorge Rivas	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	05	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #1

DW-603 (F) 343 1125170

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	113343

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764 1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
UNITED PUMPING SERVICE, INC.	CAD072953771	626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85366	AZR000506980	928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	1	CM	18	Y
b.				
c.				
d.				

GENERATOR

D. Additional Description for Materials Listed Above
1) C-3169

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

WO 37385.1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
x George Castaneda, Jr	x Geo Castaneda	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
JORGE RIVAS	Jorge	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	05	15

FACILITY

TRANSPORTER #1

DW-639

1125172

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,

Manifest Document No.

2. Page 1 of 1

113346

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764.1813

5. Transporter 1 Company Name: UNITED PUMPING SERVICE, INC.

6. US EPA ID Number: CAD072953771

A. Transporter's Phone: 626 961-9326

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
SOUTH YUMA COUNTY LANDFILL
19536 S. AVE. 1E
YUMA AZ 85366

10. US EPA ID Number: AZR000506980

C. Facility's Phone: 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	01	CM	015	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT WO 0373853
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda	[signature]	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Juan Cortez	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	[signature]	06	08	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #1

DW 640

254

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,

Manifest Document No.

2. Page 1 of 1

113345

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

Yuma AZ

645

4. Generator's Phone (760) 764 1813

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
UNITED PUMPING SERVICE, INC.	CAD072953771	626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85366	AZR000506980	928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	01	CM	015	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

WO 0373853

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda, Jr	[signature]	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Juan Cortez	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepeancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	08	15

TRANSPORTER #1

DW-646 TKI-113347

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,

Manifest Document No.

2. Page 1 of 1

113347

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764 1813

5. Transporter 1 Company Name UNITED PUMPING SERVICE, INC	6. US EPA ID Number CAD072953771	A. Transporter's Phone 626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address SOUTH YUMA COUNTY LANDFILL 19536 S. AVE. 1E YUMA AZ 85365	10. US EPA ID Number AZR000506980	C. Facility's Phone 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	Type	13 Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	001	CM	00.1.8	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3169

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

WO 37385-1

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month	Day	Year
George Castaneda, Jr	[signature]	06	05	15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year
Castro Guitron	[signature]	06	05	15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month	Day	Year
Penny Guerra	Penny Guerra	06	08	15

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #2

DW-624

TDK-255

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No,	Manifest Document No.	2. Page 1 of 1	113342

3. Generator's Name and Mailing Address
CG ROXANNE LLC
1210 HWY 395
OLANCHA CA 93549

4. Generator's Phone (760) 764.1813

5. Transporter 1 Company Name: UNITED PUMPING SERVICE, INC.	6. US EPA ID Number: CAD072953771	A. Transporter's Phone: 626 961-9326
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address: SOUTH YUMA COUNTY LANDFILL, 19536 S. AVE. 1E, YUMA AZ 85366	10. US EPA ID Number: AZR000506980	C. Facility's Phone: 928 341-9300

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZARDOUS WASTE SOLID (SOIL/SEDIMENTS)	001	CM	0018	Y
b.				
c.				
d.				

D. Additional Description for Materials Listed Above
1) C-3159

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ALWAYS WEAR APPROPRIATE PROTECTIVE EQUIPMENT WO 37385
24 HOUR EMERGENCY RESPONSE CONTACT 626.961.9326

16. **GENERATOR'S CERTIFICATION:** I Certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Type Name	Signature	Month Day Year
George Castaneda Jr	[signature]	06 05 15

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month Day Year
Carlos Guitron	[signature]	06 05 15

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Type Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of Receipt or waste materials covered by this manifest as noted in Item 19.

Printed/Type Name	Signature	Month Day Year
Penny Guerra	Penny Guerra	06 08 15

LICENSED PUBLIC WEIGHMASTER ROBERT LEE OGBURN, JR. 19087 STATE OF ARIZONA DEPT. OF WEIGHTS & MEASURES

TRANSPORTER #1

APPENDIX C

CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) HAZARDOUS WASTE MATERIALS BUSINESS PLAN SUBMITTAL

CG Roxane LLC (CERSID: 10128880)

Facility Information **Accepted Mar 1, 2015**

Submitted on 2/24/2015 9:13:11 AM by *George Castaneda* of CG Roxane LLC (Olancha, CA)
Submittal was ***Accepted*** on 3/1/2015 7:47:29 PM by Jason Boetzer

- Business Activities
- Business Owner/Operator Identification

Hazardous Materials Inventory **Accepted Mar 1, 2015**

Submitted on 2/24/2015 9:13:11 AM by *George Castaneda* of CG Roxane LLC (Olancha, CA)
Submittal was ***Accepted*** on 3/1/2015 7:47:37 PM by Jason Boetzer

- Hazardous Material Inventory (6)
- Site Map (Official Use Only)
  - Stored At Facility *CG Roxane LLC* CERSID (10128880)

Emergency Response and Training Plans **Accepted Mar 1, 2015**

Submitted on 2/24/2015 9:13:11 AM by *George Castaneda* of CG Roxane LLC (Olancha, CA)
Submittal was ***Accepted*** on 3/1/2015 7:47:49 PM by Jason Boetzer

- Emergency Response/Contingency Plan
  - Stored At Facility *CG Roxane LLC* CERSID (10128880)
- Employee Training Plan
  - Not required by county

Site Identification

CG Roxane LLC
1210 US 395
Olancha, CA 93549
County
Inyo

CERS ID
10128880
EPA ID Number
CAR000031203

Submittal Status

Submitted on 2/24/2015 by *George Castaneda* of CG Roxane LLC (Olancha, CA)
Submittal was ***Accepted***; Processed on 3/1/2015 by *Jason Boetzer* for Inyo County Department of Environmental Health Services

Hazardous Materials

Does your facility have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or is regulated under more restrictive inventory local reporting requirements (shown below if present); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	**Yes**

Underground Storage Tank(s) (UST)

Does your facility own or operate underground storage tanks?	**No**

Hazardous Waste

Is your facility a Hazardous Waste Generator?	**Yes**
Does your facility treat hazardous waste on-site?	**No**
Is your facility's treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	**No**
Does your facility consolidate hazardous waste generated at a remote site?	**No**
Does your facility need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?	**No**
Does your facility generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more than 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste.	**No**
Is your facility a Household Hazardous Waste (HHW) Collection site?	**No**

Excluded and/or Exempted Materials

Does your facility recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	**No**
Does your facility own or operate ASTs above these thresholds? Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers.	**No**
Does your facility have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release prevention Program (CalARP)?	**No**

Additional Information

California Environmental Reporting System (CERS) — Business Owner Operator

Facility/Site

CG Roxane LLC
1210 US 395
Olancha, CA 93549

CERS ID
10128880

Submittal Status

Submitted on 2/24/2015 by *George Castaneda* of CG Roxane LLC (Olancha, CA)
Submittal was ***Accepted***; Processed on 3/1/2015 by *Jason Boetzer* for Inyo County Department of Environmental Health Services

Identification

George Castaneda

Operator Phone	Business Phone	Business Fax
(760) 764-1813	(760) 764-2885	(760) 764-2861

Beginning Date | Ending Date

Dun & Bradstreet | SIC Code | Primary NAICS

Facility/Site Mailing Address

Drawer A
Olancha, CA 93549

Primary Emergency Contact

George Castaneda
Title
Quality Control

Business Phone	24-Hour Phone	Pager Number
(760) 764-2885	(760) 920-3527	

Owner

Pierre Papillaud
(760) 764-2885
PO Drawer A
Olancha, CA 93549

Secondary Emergency Contact

Pierre Boulier
Title
Plangt Manager

Business Phone	24-Hour Phone	Pager Number
(760) 764-2885		

Billing Contact

Barbie Button
(760) 764-1801 b.button@cgroxane.com
Drawer A
Olancha, CA 93549

Environmental Contact

George Castaneda
(760) 764-1813 g.castaneda@cgroxane.com
Drawer A
Olancha, CA 93549

Name of Signer	Signer Title	Document Preparer
George Castaneda	Quality Control	George Castaneda

Additional Information

Locally-collected Fields

Some or all of the following fields may be required by your local regulator(s).

Property Owner

Phone

Mailing Address

,

Assessor Parcel Number (APN)

Number of Employees
0

Facility ID
14-000-000254

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	**CG Roxane LLC**	Chemical Location		CERS ID	**10128880**
Facility Name	**CG Roxane LLC**	**At Fire System Generators**		Facility ID	**14-000-000254**
	1210 US 395, Olancha 93549			Status	**Submitted** on 2/24/2015 9:13 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**Diesel Fuel** CAS No 68334-30-5	**Gallons** State Liquid Type Pure	**800** Storage Container Aboveground Tank	**500**	600 Pressue Ambient Temperature Ambient	0 Waste Code	- Fire - Chronic health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	CG Roxane LLC	Chemical Location		CERS ID	10128880
Facility Name	CG Roxane LLC	Chemical Storage		Facility ID	14-000-000254
	1210 US 395, Olancha 93549			Status	**Submitted** on 2/24/2015 9:13 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	Phosphoric Acid CAS No 7664-38-2	**Gallons** State: Liquid Storage Container: Plastic/Non-metalic Drum Type: Waste Days on Site: 365	**30**	**15**	30 Pressue: Ambient Temperature: Ambient	20 Waste Code					
	Caustic Soda CAS No 1310-73-2	**Gallons** State: Liquid Storage Container: Plastic/Non-metalic Drum Type: Waste Days on Site: 365	**55**	**15**	55 Pressue: Ambient Temperature: Ambient	Waste Code					
	Vortexx CAS No 79-21-0	**Gallons** State: Liquid Storage Container: Plastic/Non-metalic Drum Type: Waste Days on Site: 365	**24**	**4**	24 Pressue: Ambient Temperature: Ambient	10 Waste Code					
	Phosphoric Acid CAS No 7664-38-2	**Gallons** State: Liquid Storage Container: Plastic/Non-metalic Drum Type: Waste Days on Site: 365	**110**	**55**	80 Pressue: Ambient Temperature: Ambient	Waste Code					
	Quaternary ammonium Compounds CAS No 68424-85-1	**Gallons** State: Liquid Storage Container: Plastic/Non-metalic Drum Type: Waste Days on Site: 365	**55**	**55**	30 Pressue: Ambient Temperature: Ambient	Waste Code					

APPENDIX D

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

Facility Name: CG Roxane, LLC.
Facility Address: 1210 S. Hwy 395
City: Olancha State: CA ZIP: 93549
County: Inyo Tel. Number: (760)764 2885
Owner or Operator Name: Ronan Papillaud
Owner or Operator Address: 2330 Marinship Way Suite 190
City: Sausalito State: CA ZIP: 94965
County: ________ Tel. Number: (415)339-8230

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I George Castañeda certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
   a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
   b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
   c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

I also understand my other obligations relating to the storage of oil at this facility, including, among others:

1. To report any oil discharge to navigable waters or adjoining shorelines to the appropriate authorities. Notification information is included in this Plan.
2. To review and amend this Plan whenever there is a material change at the facility that affects the potential for an oil discharge, and at least once every five years. Reviews and amendments are recorded in an attached log [See Five Year Review Log and Technical Amendment Log in Attachments 1.1 and 1.2.]
3. Optional use of a contingency plan. A contingency plan:
   a. May be used in lieu of secondary containment for qualified oil-filled operational equipment, in accordance with the requirements under §112.7(k), and;
   b. Must be prepared for flowlines and/or intra-facility gathering lines which do not have secondary containment at an oil production facility, and;
   c. Must include an established and documented inspection or monitoring program; must follow the provisions of 40 CFR part 109; and must include a written commitment of manpower, equipment and materials to expeditiously remove any quantity of oil discharged that may be harmful. If applicable, a copy of the contingency plan and any additional documentation will be attached to this Plan as Attachment 2.

I certify that I have satisfied the requirement to prepare and implement a Plan under §112.3 and all of the requirements under §112.6(a). I certify that the information contained in this Plan is true.

Signature: Geo J Castaneda, Jr Title: Corporate Quality Control Manager

Name: George J Castaneda, Jr Date: 04/11/2016

II. Record of Plan Review and Amendments

Five Year Review (§112.5(b)):

Complete a review and evaluation of this SPCC Plan at least once every five years. As a result of the review, amend this Plan within six months to include more effective prevention and control measures for the facility, if applicable. Implement any SPCC Plan amendment as soon as possible, but no later than six months following Plan amendment. Document completion of the review and evaluation, and complete the Five Year Review Log in Attachment 1.1. If the facility no longer meets Tier I qualified facility eligibility, the owner or operator must revise the Plan to meet Tier II qualified facility requirements, or complete a full PE certified Plan.

Table G-1 Technical Amendments (§§112.5(a), (c) and 112.6(a)(2))	
This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the potential for a discharge to navigable waters or adjoining shorelines. Examples include adding or removing containers, reconstruction, replacement, or installation of piping systems, changes to secondary containment systems, changes in product stored at this facility, or revisions to standard operating procedures.	☑
Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template. *[§112.6(a)(2)]* **[See Technical Amendment Log in Attachment 1.2]**	☑

III. Plan Requirements

1. Oil Storage Containers (§112.7(a)(3)(i)):

Table G-2 Oil Storage Containers and Capacities

This table includes a complete list of all oil storage containers (aboveground containers[a] and completely buried tanks[b]) with capacity of 55 U.S. gallons or more, unless otherwise exempt from the rule. For mobile/portable containers, an estimated number of containers, types of oil, and anticipated capacities are provided. ☑

Oil Storage Container *(indicate whether aboveground (A) or completely buried (B))*	**Type of Oil**	**Shell Capacity (gallons)**
A (3) 55 Gallon	Glycol	165
A (1) 55 Gallon	15-40w Motor Oil	55
A (3) 55 Gallon	ISO 32 Compressor Oil	165
A (3) 330 Gallon Poly Tote	Hydraulic Oil	990
A (1) 300 Generator (Fire Suppression System)	Diesel	300
A (1) 500 Generator (Fire Suppression System)	Diesel	500
A (1) 55 Gallon	Transmission Fluid	55

Total Aboveground Storage Capacity [c] 2230 gallons
Total Completely Buried Storage Capacity ~~0~~ gallons
Facility Total Oil Storage Capacity ______ gallons

[a] Aboveground storage containers that must be included when calculating total facility oil storage capacity include: tanks and mobile or portable containers; oil-filled operational equipment (e.g. transformers); other oil-filled equipment, such as flow-through process equipment. Exempt containers that are not included in the capacity calculation include: any container with a storage capacity of less than 55 gallons of oil; containers used exclusively for wastewater treatment; permanently closed containers; motive power containers; hot-mix asphalt containers; heating oil containers used solely at a single-family residence; and pesticide application equipment or related mix containers.

[b] Although the criteria to determine eligibility for qualified facilities focuses on the aboveground oil storage containers at the facility, the completely buried tanks at a qualified facility are still subject to the rule requirements and must be addressed in the template; however, they are not counted toward the qualified facility applicability threshold.

[c] Counts toward qualified facility applicability threshold.

2. Secondary Containment and Oil Spill Control (§§112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2)):

Table G-3 Secondary Containment and Oil Spill Control

Appropriate secondary containment and/or diversionary structures or equipment[a] is provided for all oil handling containers, equipment, and transfer areas to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs. ☑

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

Table G-4 below identifies the tanks and containers at the facility with the potential for an oil discharge; the mode of failure; the flow direction and potential quantity of the discharge; and the secondary containment method and containment capacity that is provided.

Area	Type of failure (discharge scenario)	Potential discharge volume (gallons)	Direction of flow for uncontained discharge	Secondary containment method[a]	Secondary containment capacity (gallons)
Bulk Storage Containers and Mobile/Portable Containers[b]					
(8) 55 gallon poly Drums	Spill	55	NE	Oil Containment Room	Approx. 9000gal.
(3) 330 gallon poly Totes	Spill	330	NE	Oil Containment Room	Approx. 9000gal
(1) 300 gallon Steel Tank	Spill	300	NE	Coventional Secondary Cont.	Approx 400gal
(1) 500 gallon Convault	Spill	500	NE	Convault	
Oil-filled Operational Equipment (e.g., hydraulic equipment, transformers)[c]					
(8) HUSKY IBM	Rupture / Leak	500	NE	Inside Building	OEOF Insp. Form
#1, #2, #3, #5, #6, #7,					
#8, #10					
Piping, Valves, etc.					
Husky Associated Piping	Rupture / Leak	50-100	NE	Inside Building	OEOF Insp. Form
Product Transfer Areas (location where oil is loaded to or from a container, pipe or other piece of equipment.)					
Other Oil-Handling Areas or Oil-Filled Equipment (e.g. flow-through process vessels at an oil production facility)					

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.
[b] For storage tanks and bulk storage containers, the secondary containment capacity must be at least the capacity of the largest container plus additional capacity to contain rainfall or other precipitation.
[c] For oil-filled operational equipment: Document in the table above if alternative measures to secondary containment (as described in §112.7(k)) are implemented at the facility.

Facility Name: CG Roxane, LLC.

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-5 Inspections, Testing, Recordkeeping and Personnel Training	
An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. *[§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]*	☑
The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility: ① An OEOF Checklist will be completed monthly. This covers all containers and oil filled equipment and associated piping. ② SPCC and oil Handling Training. ③ 6 individuals are taking 24 hr. HAZWOPER course (John Roberts, Richard Riley, Manuel Luna, Charles Abbott, Juan Gutierrez, Dave Adair) (certs provided upon completion)	
Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. *[§112.7(e)]*	☑
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. *[§112.7(e)]* **[See Inspection Log and Schedule in Attachment 3.1]**	☑
Inspections and tests are signed by the appropriate supervisor or inspector. *[§112.7(e)]*	☑
Personnel, training, and discharge prevention procedures [§112.7(f)]	
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. *[§112.7(f)]*	☑
A person who reports to facility management is designated and accountable for discharge prevention. *[§112.7(f)]* Name/Title: George J Castañeda, Jr (760) 920-3527	☑
Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. *[§112.7(f)]* **[See Oil-handling Personnel Training and Briefing Log in Attachment 3.4]**	☑

4. Security (excluding oil production facilities) §112.7(g):

Table G-6 Implementation and Description of Security Measures	
Security measures are implemented at this facility to prevent unauthorized access to oil handling, processing, and storage area.	☑
The following is a description of how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges: ① Key Control ② Card access to only trained and qualified personnel ③ All containers, containments and oil filled equipment are on the monthly OEOF checklist.	

5. Emergency Procedures and Notifications (§112.7(a)(3)(iv) and 112.7(a)(5)):

Table G-7 Description of Emergency Procedures and Notifications
The following is a description of the immediate actions to be taken by facility personnel in the event of a discharge to navigable waters or adjoining shorelines *[§112.7(a)(3)(iv) and 112.7(a)(5)]*: See Contingency Plan & Emergency Procedure.

OLANCHA INJ./BLOWING DEPARTMENT EQUIP. LIST

HUSKY 1: MODEL# XL225P SER# 9510 YEAR 09/90
Robot SER# 9511 EXT 85

HUSKY 2: MODEL # XL225P SER# 9580 YEAR 01/91
Robot SER# 9582 EXT 85

HUSKY 3: MODEL # XL300PET SER# 10225 YEAR 01/94
Robot SER# 10226 EXT 85

[redacted] (Not in Use)

HUSKY 5: MODEL # GL300PET SER# 2022248 YEAR 99/03/03
Robot SER# 2022250 FRST.DG.B EXT 100

HUSKY 6: MODEL # HYPET300 SER# 3029303 YEAR 05/2005 Patch 104512
Robot SER# 3029307

HUSKY 7: MODEL # LX225 SER# 11479 YEAR 95/03/13
Robot SER# 11528 EXT 85

HUSKY 8: MODEL # GL300 SER# 3065676 YEAR
Robot SER# 2818697 EXT P100/120 E120

HUSKY 10: MODEL # HyPET 300 4.0 SER# 5836846
Robot SER# 5836847 EXT P85/95 EE85

6. Contact List (§112.7(a)(3)(vi)): See Contingency Plan

Table G-8 Contact List	
Contact Organization / Person	**Telephone Number**
National Response Center (NRC)	1-800-424-8802
Cleanup Contractor(s)	
Key Facility Personnel	
Designated Person Accountable for Discharge Prevention: George Castaneda	Office: 760 764-1813 Emergency: 760 920-3527
John Roberts	Office: 760 764-1815 Emergency: 760 264-6490
Juan Gutierrez	Office: 760 764-2885 Emergency: 760 219-0116
	Office: Emergency:
State Oil Pollution Control Agencies	
Other State, Federal, and Local Agencies	
Local Fire Department	911
Local Police Department	911
Hospital	760 876-5510
Other Contact References (e.g., downstream water intakes or neighboring facilities)	

7. NRC Notification Procedure (§112.7(a)(4) and (a)(5)):

Table G-9 NRC Notification Procedure	
In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information identified in Attachment 4 will be provided to the National Response Center immediately following identification of a discharge to navigable waters or adjoining shorelines **[See Discharge Notification Form in Attachment 4]**: *[§112.7(a)(4)]*	☐
• The exact address or location and phone number of the facility; • Date and time of the discharge; • Type of material discharged; • Estimate of the total quantity discharged; • Estimate of the quantity discharged to navigable waters; • Source of the discharge;	• Description of all affected media; • Cause of the discharge; • Any damages or injuries caused by the discharge; • Actions being used to stop, remove, and mitigate the effects of the discharge; • Whether an evacuation may be needed; and • Names of individuals and/or organizations who have also been contacted.

8. SPCC Spill Reporting Requirements (Report within 60 days) (§112.4):

Submit information to the EPA Regional Administrator (RA) and the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located within 60 days from one of the following discharge events:

A single discharge of more than 1,000 U.S. gallons of oil to navigable waters or adjoining shorelines or
Two discharges to navigable waters or adjoining shorelines each more than 42 U.S. gallons of oil occurring within any twelve month period

You must submit the following information to the RA:

(1) Name of the facility;
(2) Your name;
(3) Location of the facility;
(4) Maximum storage or handling capacity of the facility and normal daily throughput;
(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
(7) The cause of the reportable discharge, including a failure analysis of the system or subsystem in which the failure occurred; and
(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

* * * * *

NOTE: Complete one of the following sections (A, B or C) as appropriate for the facility type.

ATTACHMENT 1 – Five Year Review and Technical Amendment Logs

ATTACHMENT 1.1 – Five Year Review Log

I have completed a review and evaluation of the SPCC Plan for this facility, and will/will not amend this Plan as a result.

Table G-13 Review and Evaluation of SPCC Plan for Facility

Review Date	Plan Amendment		Name and signature of person authorized to review this Plan
	Will Amend	Will Not Amend	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

ATTACHMENT 1.2 – Technical Amendment Log

Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template.

Table G-15 Description and Certification of Technical Amendments

Review Date	Description of Technical Amendment	Name and signature of person certifying this technical amendment

ATTACHMENT 2 – Oil Spill Contingency Plan and Checklist

An oil spill contingency plan and written commitment of resources is required for:

- Flowlines and intra-facility gathering lines at oil production facilities and
- Qualified oil-filled operational equipment which has no secondary containment.

An oil spill contingency plan meeting the provisions of 40 CFR part 109, as described below, and a written commitment of manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful is attached to this Plan.	☑

Complete the checklist below to verify that the necessary operations outlined in 40 CFR part 109 - Criteria for State, Local and Regional Oil Removal Contingency Plans - have been included.

Table G-15 Checklist of Development and Implementation Criteria for State, Local and Regional Oil Removal Contingency Plans (§109.5)[a]	
(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved in planning or directing oil removal operations.	☑
(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including:	
(1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges.	☑
(2) A current list of names, telephone numbers and addresses of the responsible persons (with alternates) and organizations to be notified when an oil discharge is discovered.	☑
(3) Provisions for access to a reliable communications system for timely notification of an oil discharge, and the capability of interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans (e.g., NCP).	☑
(4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority.	☑
(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including:	
(1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally.	☑
(2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated.	☑
(3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge.	☑
(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including:	
(1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel.	☑
(2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans.	☑
(3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations.	☑
(4) Provisions for varying degrees of response effort depending on the severity of the oil discharge.	☑
(5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses.	☑
(6) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances.	☑

[a] The contingency plan must be consistent with all applicable state and local plans, Area Contingency Plans, and the National Contingency Plan (NCP)

ATTACHMENT 3 – Inspections, Dike Drainage and Personnel Training Logs

ATTACHMENT 3.1 – Inspection Log and Schedule

Table G-16 Inspection Log and Schedule

This log is intended to document compliance with §§112.6(a)(3)(iii), 112.8(c)(6), 112.8(d)(4), 112.9(b)(2), 112.9(c)(3), 112.9(d)(1), 112.9(d)(4), 112.12.(c)(6), and 112.12(d)(4), as applicable.

Date of Inspection	Container / Piping / Equipment	Describe Scope (or cite Industry Standard)	Observations	Name/ Signature of Inspector	Records maintained separately [a]
					☐
					☐
					☐
					☐
					☐

[a] Indicate in the table above if records of facility inspections are maintained separately at this facility.

ATTACHMENT 3.2 – Bulk Storage Container Inspection Schedule – onshore facilities (excluding production):

To comply with integrity inspection requirement for bulk storage containers, inspect/test each shop-built aboveground bulk storage container on a regular schedule in accordance with a recognized container inspection standard based on the minimum requirements in the following table.

<table>
<tr><th colspan="2">Table G-17 Bulk Storage Container Inspection Schedule</th></tr>
<tr><th>Container Size and Design Specification</th><th>Inspection requirement</th></tr>
<tr><td>Portable containers (including drums, totes, and intermodal bulk containers (IBC))</td><td>Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas</td></tr>
<tr><td>55 to 1,100 gallons with sized secondary containment</td><td rowspan="2">Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas plus any annual inspection elements per industry inspection standards</td></tr>
<tr><td>1,101 to 5,000 gallons with sized secondary containment and a means of leak detection[a]</td></tr>
<tr><td>1,101 to 5,000 gallons with sized secondary containment and no method of leak detection[a]</td><td>Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas, plus any annual inspection elements and other specific integrity tests that may be required per industry inspection standards</td></tr>
</table>

[a] Examples of leak detection include, but are not limited to, double-walled tanks and elevated containers where a leak can be visually identified.

Date	Bypass valve sealed closed	Rainwater inspected to be sure no oil (or sheen) is visible	Open bypass valve and reseal it following drainage	Drainage activity supervised	Observations	Signature of Inspector
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		

ATTACHMENT 3.4 – Oil-handling Personnel Training and Briefing Log

Table G-19 Oil-Handling Personnel Training and Briefing Log		
Date	Description / Scope	Attendees

ATTACHMENT 4 – Discharge Notification Form

In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information will be provided to the National Response Center **[also see the notification information provided in Section 7 of the Plan]**:

Table G-20 Information provided to the National Response Center in the Event of a Discharge			
Discharge/Discovery Date		Time	
Facility Name			
Facility Location (Address/Lat-Long/Section Township Range)			
Name of reporting individual		Telephone #	
Type of material discharged		Estimated total quantity discharged	Gallons/Barrels
Source of the discharge		Media affected	☐ Soil ☐ Water (specify) ☐ Other (specify)
Actions taken			
Damage or injuries	☐ No ☐ Yes (specify)	Evacuation needed?	☐ No ☐ Yes (specify)
Organizations and individuals contacted	☐ National Response Center 800-424-8802 Time ☐ Cleanup contractor (Specify) Time ☐ Facility personnel (Specify) Time ☐ State Agency (Specify) Time ☐ Other (Specify) Time		

Oil Container, Containment & OFEO Inspection Form

Date of Inspection	*Container/ Piping/ Equipment*	*Describe Scope*	*Observations*	*Name*

TRAINING
SPCC / PETROLEUM PRODUCTS

SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN

TRAINING

PURPOSE

- Prevent Oil Spills
- Response to Oil Spills
- Remediation of Oil Spills

The purpose of the oil pollution prevention training is to provide you with the knowledge necessary to prevent spills, respond promptly and properly to spills and provide appropriate and sufficient remediation of the spill.

CG ROXANE DOES NOT SHIP OIL? WHY DO WE NEED TRAINING?

- 40 CFR 112 – OIL POLLUTION PREVENTION REGULATIONS REQUIRE US TO PROVIDE AN SPCC PLAN (SPILL PREVENTION, CONTROL AND COUNTERMEASURES PLAN) BECAUSE WE USE AND /OR STORE >1,320 GALLONS OF PETROLEUM PRODUCTS ON SITE.
- THIS APPLIES TO ALL CONTAINERS AND EQUIPMENT WITH A CAPACITY GREATER THAN 55 GALLONS.
- ANYONE THAT HANDLES ANY OF THESE OILS MUST BE TRAINED.

THE ENVIRONMENT

- CG ROXANE, LLC IS COMMITTED TO PRESERVING OUR ENVIRONMENT AND BEING GOOD STEWARDS OF THE NATURAL RESOURCES WITHIN OUR FACILITY PROPERTY AND BEYOND TO CARTAGO CREEK ON THE NORTH, THE OWENS DRY LAKE BED AND ALL ASSOCIATED WETLANDS, ALL OTHER LANDS SURROUNDING OUR FACILITY.

OBJECTIVES

- REVIEW TERMINOLOGY OF OIL POLLUTION PREVENTION
- REVIEW CONTENTS OF SPCC PLAN AND INDIVIDUAL EMPLOYEE RESPONSIBILITY IN REGARDS TO COMPLIANCE.
- REVIEW OIL SOURCES AND ANY INSPECTIONS REQUIRED.
- REVIEW PROPER RESPONSE TO OIL SPILL EVENT AND INDIVIDUAL RESPONSIBILITY.

DEFINITIONS

- SPCC PLAN – *SPILL PREVENTION, CONTROL AND COUNTERMEASURES PLAN*

A DOCUMENT REQUIRED BY 40 CFR 112.3 THAT DETAILS THE EQUIPMENT, WORKFORCE, PROCEDURES AND STEPS TO PREVENT, CONTROL AND PROVIDE ADEQUATE COUNTERMEASURES TO A DISCHARGE OF OIL.

- OIL – OIL OF ANY KIND OR IN ANY FORM

INCLUDING , BUT NOT LIMITED TO: FATS, OILS, OR GREASES OF ANIMAL, FISH, OR MARINE MAMMAL ORIGIN; VEGETABLE OILS, INCLUDING OILS FROM SEEDS, NUTS, FRUITS, OR KERNELS; AND, OTHER OILS AND GREASES, INCLUDING PETROLEUM, FUEL OIL, SLUDGE, SYNTHETIC OILS, MINERAL OILS, OIL REFUSE, OR OIL MIXED WITH WASTES OTHER THAN DREDGED SPOIL.

<u>OILS USED AT CG ROXANE, LLC / INCLUDE</u>

HYDRAULIC OIL FOR THE HUSKY MACHINES,

SPECIAL HYDRAULIC OIL FOR FORKLIFTS,

MOTOR OIL FOR CG ROXANE, LLC MAINTENANCE FLEET OF CARS,

COMPRESSOR OIL FOR THE CENTAC MACHINES

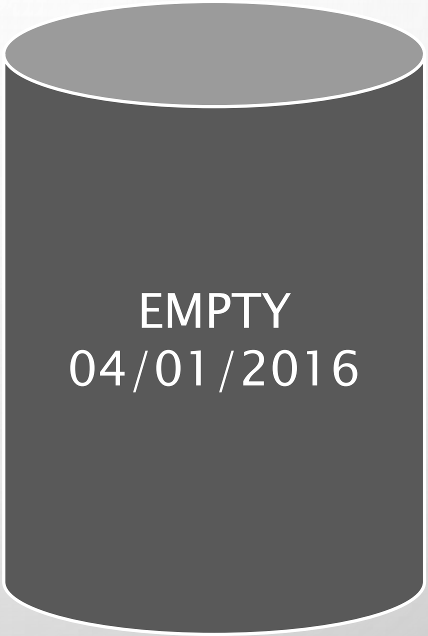
NOT OIL: *ETHYLENE OR PROPYLENE GLYCOL, ISOPROPYL ALCOHOL, ACID/BASES, LATEX PAINT, NATURAL GAS OR PROPANE*

DEFINITIONS

- NAVIGABLE WATERS – *ALTHOUGH THERE IS NO WATER IN THE OWNS DRY LAKE BED IT IS STILL CONSIDERED NAVIGABLE WATERS OF THE UNITED STATES AND ARE GOVERNED BY CALIFORNIA'S STATE LAND COMMISSION.*
- STORAGE OR SHELL CAPACITY – *THE SHELL OR MAXIMUM CAPACITY OF ANY CONTAINER.*
- BULK STORAGE CONTAINER – *BULK STORAGE CONTAINERS ARE ANY CONTAINERS USED TO STORE OIL. THESE CONTAINERS ARE USED FOR PURPOSES INCLUDING, BUT NOT LIMITED TO: STORAGE OF OIL PRIOR TO USE, WHILE BEING USED, OR PRIOR TO FURTHER DISTRIBUTION IN COMMERCE.* ***CG ROXANE, LLC USES 55 GALLON DRUMS, TOTES, AND FUEL TANKS FOR BACKUP GENERATORS.***

DEFINITIONS

- SECONDARY CONTAINMENT – *A DIKE OR CATCHMENT BASIN SUFFICIENT TO CONTAIN THE CAPACITY OF THE LARGEST SINGLE COMPARTMENT OR CONTAINER OF OIL. IF OUTDOORS, SECONDARY CONTAINMENT MUST HAVE SUFFICIENT FREEBOARD TO CONTAIN PRECIPITATION (CG ROXANE FREEBOARD IS 5.5 INCHES)*
- DISCHARGE – *A DISCHARGE INCLUDES BUT IS NOT LIMITED TO, ANY SPILLING, LEAKING, PUMPING, POURING, EMITTING, EMPTYING, OR DUMPING OF OIL.*
- EMPTY – *EMPTY BULK STORAGE CONTAINERS ARE NOT EMPTY UNLESS THEY ARE LABELED* ***EMPTY.*** *EMPTY BULK STORAGE CONTAINERS THAT ARE LABELED EMPTY DO NOT REQUIRE SECONDARY CONTAINMENTS. CALIFORNIA EMPTY IS LIQUID DOES NOT STREAM REGARDLESS OF THE ORIENTATION THAT THE CONTAINER IS TIPPED. DRIPPING IS CONSIDERED CALIFORNIA EMPTY.*



RESPONSIBILITY

- GENERAL POPULATION OF EMPLOYEES ARE TRAINED TO AWARENESS LEVEL AND RESPONSIBLE TO REPORT ANY INCIDENT TO EMPLOYEES AUTHORIZED TO CONTAIN THE SPILL.
- EMPLOYEES TRAINED TO RESPOND HAVE BEEN TRAINED AND SHALL BE FIRST RESPONDERS NOTIFIED OF THE INCIDENT.
- EMPLOYEES SHALL BE FAMILIAR WITH THE ‘CONTINGENCY PLAN & EMERGENCY PROCEDURE
- ALL EMPLOYEES THAT WILL HANDLE ANY OILS WILL COMPLETE THIS TRAINING BEFORE BEING AUTHORIZED TO HANDLE ANY OILS.
- EMPLOYEES RESPONSIBLE TO BE FIRST RESPONDERS WILL BE TRAINED TO COMPLETE SPCC INSPECTION CHECKLIST

SPCC PLAN

- CONTAINERS WITH 55+ GALLON CAPACITY REQUIRE
  - SECONDARY CONTAINMENT
  - MONTHLY INSPECTIONS

NOTE:: IT MAKES NO DIFFERENCE IF A CONTAINER HAS 5 GALLONS OR MORE THAN 55 GALLONS. IT REQUIRES A SECONDARY CONTAINMENT.

SPCC PLAN

- OIL FILLED OPERATING EQUIPMENT (OFOE)
  - *ANY EQUIPMENT WITH THE CAPACITY TO HOLD 55 GALLONS OR MORE OF OIL.*
  - *SECONDARY CONTAINMENT – HUSKYS DO NOT HAVE TRADITIONAL SECONDARY CONTAINMENTS*
  - *ENVIRONMENTAL EQUIVALENT – ALL HUSKYS ARE FAR ENOUGH FROM ANY WATERWAY THAT ANY SPILL WOULD BE CONTAINED LONG BEFORE IT REACHED A BODY OF WATER OR IN THIS CASE THE OWENS DRY LAKE BED*
  - *MONTHLY INSPECTIONS OF OFOE AND ALL PIPING ASSOCIATED WILL BE COMPLETED BY PERSONNEL ASSIGNED BY THE MANAGER IN THAT AREA OR DEPARTMENT.*

Visual Assessment

- **Is it leaking?**
- **Is damage present that could develop a leak?**

If you can see it then it should be noted on the inspection form

MONTHLY INSPECTIONS

- BULK STORAGE CONTAINERS – *WHAT TO LOOK FOR:*
- *DRIP MARKS*
- *DISCOLORATION*
- *PUDDLES CONTAINING OIL*
- *CORROSION – SURFACE RUST, PITTING*
- *CRACKS*
- *LOCALIZED DEAD VEGETATION*
- *DENTS OR BULGES*

MONTHLY INSPECTIONS

CONTAINMENT – SECONDARY – *WHAT TO LOOK FOR:*

- *LEVEL OF PRECIPITATION AND AVAILABLE CAPACITY*
- *DRAIN VALVES – MUST BE IN GOOD OPERATING ORDER*
- *CRACKS IN CEMENT CONTAINMENT*
- *PIPING, INLETS AND DRAINS FOR LEAKING*
- *DISCOLORATION*
- *STRESSED VEGETATION*
- *SPILLED OR LEAKED MATERIAL*
- *CORROSION*
- *DEBRIS, ETC. IN CONTAINMENT AREA*

MONTHLY INSPECTIONS

- IF YOU FIND OIL SPILLED
  - MUST BE CLEANED UP
  - DETERMINE ROOT CAUSE OF SPILL
  - DOCUMENT CLEAN-UP ACTIVITIES AND ROOT CAUSE OF ISSUE ON THE INSPECTION FORM

OIL SPILL RESPONSE

- CONTINGENCY PLAN AND EMERGENCY PROCEDURE
  - THE CONTINGENCY PLAN OUTLINES RESPONSIBILITY
  - SIX INDIVIDUALS ARE RESPONSIBLE FOR BEING FIRST RESPONDERS AND CONTAINING THE SPILL
  - THE EMERGENCY COORDINATOR WILL CONTACT THE AGREED UPON CONTRACTOR TO RESPOND AND CLEAN-UP SPILL
  - ALL CG ROXANE EMPLOYEES ARE RESPONSIBLE TO REPORT ANY SPILL OR SUSPICIOUS FINDINGS TO THEIR MANAGER OR EMERGENCY COORDINATOR

SUMMARY

- THE SPCC, CONTINGENCY PLAN & EMERGENCY PROCEDURE, EMERGENCY ACTION PLAN AND FOOD DEFENSE PLAN ARE ALL PARTS OF ENSURING THE SPCC IS SUCCESSFUL.
- ALL INDIVIDUALS EMPLOYED AT CG ROXANE, LLC. PLAY A ROLE IN THE SUCCESS OF THIS PLAN.
- CG ROXANE, LLC IS COMMITTED TO SECURING OUR OIL STORAGE AND CONTAINMENT AREAS, TRAINING EMPLOYEES IN ALL PARTS OF THE PLAN RELATED TO THEM AND HAVING A GREAT TEAM TO APPROPRIATELY HANDLE ANY OIL SPILL THAT MIGHT OCCUR.

APPENDIX E

STORMWATER FLOW DIAGRAM AND STORMWATER POLLUTION PREVENTION PLAN

INDUSTRIAL SITE
STORM WATER POLLUTION PREVENTION PLAN

For:

CG Roxane Bottling Facility, Olancha California

April 2016

Prepared for:

CG Roxane
1210 S. Highway 395
Olancha, California 93549
(760) 934-3913

Owner:

CG Roxane
1210 S. Highway 395
Olancha, CA 93549
Manager: Pierre Boullier
(760) 764-2535

Project Site Location/Address:

1210 S. Highway 395
(760) 764-2535

SWPPP Prepared by:

Triad/Holmes Associates
549 Old Mammoth Road, Suite 202
Mammoth Lakes, California 93546
(760) 934-7588
Thomas A. Platz, P.E. 41039,
Engineer for and under Direction of Owner – CG Roxane

WDID No.:

Table of Contents

SWPPP and Monitoring Program Attachments

Qualified Industrial Storm Water Practitioner

Approval and Certification of the Industrial Stormwater Pollution Prevention Plan

Project Name: CG Roxane Bottling Facility

Project Number: __________

"This Industrial Stormwater Pollution Prevention Plan and Attachments were prepared under my direction to meet the requirements of the California Industrial General Permit (SWRCB Orders No. 2014-0057-DWQ). I certify that I am a Qualified Industrial Storm Water Practitioner (QISP) in good standing as of the date signed below."

QISP Signature	*Date*
Thomas A. Platz	*P.E. C 41039*
QISP Name	*QISP Certificate Number*
Triad Holmes Associates, Principle	*760-934-7588*
Title and Affiliation	*Telephone Number*
tplatz@thainc.com	
Email	

Legally Responsible Person

Approval and Certification of the Industrial Stormwater Pollution Prevention Plan

Project Name: CG Roxane

Project Number: ______________________

"I certify under penalty of law that this document and all Attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

____
Legally Responsible Person

______________________ ______________________
Signature of Legally Responsible Person Date

Page Beykpour
Name of Legally Responsible Person

760-934-8989, Ext. 254
Telephone Number

1 SWPPP REQUIREMENTS

In the following document - references to sections within parentheses are to the General Permit 2014-0057-DWQ.

This Industrial Stormwater Pollution Prevention Plan (SWPPP) is designed to comply with California's General Permit for Stormwater Discharges Associated with Industrial Activities (General Permit) Order No. 2014-0057-DWQ as amended in 2014 (NPDES No. CAS000001) issued by the State Water Resources Control Board (State Water Board. In accordance with the General Permit, Section X, this SWPPP is designed to address the following:

a. Identify and evaluate all sources of pollutants that may affect the quality of industrial storm water discharges and authorized NSWDs;
b. Identify and describe the minimum BMPs and any advanced BMPs implemented to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs. BMPs shall be selected to achieve compliance with the General Permit; and
c. Identify and describe conditions or circumstances which may require future revisions to be made to the SWPPP.

1.1 Objectives

This SWPPP along with the included SWPPP drawings have two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, overhead coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A. The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

CG Roxane (CGR) is intending to co-mingle process wastewater with stormwater and dispose of it using percolation ponds on the property. The majority of the stormwater and process wastewater will go to a percolation pond in the easterly portion of the property (east pond). A second pond (fire pond) on the southerly portion of the property disposes of a minor amount of process wastewater. Only rain water that falls directly on this pond is directed to a fire pond overflow percolation pond along with the process wastewater. CGR intends for the discharges to the east and fire pond to be covered under the Waste Discharge Requirements permit issued for the facility. This SWPPP is designed to comply with the Industrial General Stormwater Permit but discharges will be covered under one WRD for the Site to include both stormwater and wastewater at the East Pond and the Fire Pond.

1.2 Permit Registration Documents

Required Permit Registration Documents (PRDs) shall be submitted to the State Water Board via the Stormwater Multi Application and Report Tracking System (SMARTS) by the Legally Responsible Person (LRP), or authorized personnel (i.e., Approved Signatory) under the direction of the LRP. The project-specific PRDs include:

1. A completed NOI and signed certification statement
2. A copy of a current Site Map from the Storm Water Pollution Prevention Plan (SWPPP)
3. A SWPPP

Site Maps can be found in Appendix A. A copy of the submitted PRDs shall also be kept in Appendix B along with the Waste Discharge Identification (WDID) confirmation.

1.3 SWPPP Elements (X.A.)

This SWPPP is prepared for the CG Roxane Water Bottling Facility. The following elements are included as required by the General Permit:

1. Facility Name and Contact Information;
2. Site Map
3. List of Industrial Materials
4. Description of Potential Pollution Sources
5. Assessment of Potential Pollutant Sources
6. Minimum BMPs
7. Advanced BMPs
8. Monitoring Implementation Plan
9. Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation)
10. Date that SWPPP was Initially Prepared and the Date of Each SWPPP Amendment

1.4 SWPPP Implementation and Revisions (X.B.)

All Dischargers are required to implement their SWPPP by July 1, 2015 or upon commencement of industrial activity. The Discharger shall:

1. Revise their on-site SWPPP whenever necessary;
2. Certify and submit via SMARTS their SWPPP within 30 days whenever the SWPPP contains significant revision(s); and,
3. With the exception of significant revisions, the Discharger is not required to certify and submit via SMARTS their SWPPP revisions more than once every three (3) months in the reporting year.

The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board.

The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit a SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.

When any part of the SWPPP is infeasible to implement by the deadlines specified in the General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

1.5 SWPPP Performance Standards (X.C.)

This SWPPP identifies and evaluates all sources of pollutants that may affect the quality of industrial storm water discharges and authorized NSWDs. It also addresses and describes the minimum BMPs (Section X.H.1) and any advanced BMPs (Section X.H.2) implemented to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs. BMPs are selected to achieve compliance with this General Permit

Future revisions shall be made to the SWPPP, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

This report is prepared in accordance with all applicable SWPPP requirements of Section X of the General Permit. A copy of the SWPPP shall be maintained at the facility.

1.6 Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) (XV)

The Discharger shall conduct one Annual Evaluation for each reporting year (July 1 to June 30). If the Discharger conducts an Annual Evaluation fewer than eight (8) months, or more than sixteen (16) months, after it conducts the previous Annual Evaluation, it shall document the justification for doing so. The Discharger shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the Annual Evaluation. At a minimum, Annual Evaluations shall consist of:

a. A review of all sampling, visual observation, and inspection records conducted during the previous reporting year;
b. An inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system;
c. An inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section XVII;
d. An inspection of equipment needed to implement the BMPs;
e. An inspection of any BMPs;
f. A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDs; and,
g. An assessment of any other factors needed to comply with the requirements in Section XVI.B. of the General Permit

1.7 Annual Report (XVI)

a. Discharger shall certify and submit via SMARTS an Annual Report no later than July 15th following each reporting year using the standardized format and checklists in SMARTS.
b. The Discharger shall include in the Annual Report:
    1. A Compliance Checklist that indicates whether a Discharger complies with, and has addressed all applicable requirements of this General Permit; Industrial General Permit Order
    2. An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist;
    3. An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year; and,
    4. The date(s) of the Annual Evaluation.

Clean Water Act section 309(c)(4) provides that any person that knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years or by both.

1.8 Transfers

Coverage under this General Permit is non-transferrable. When operation of the facility has been transferred to another entity, or a facility is relocated, new PRDs for NOI and NEC coverage must be certified and submitted via SMARTS prior to the transfer, or at least seven (7) days prior to the first day of operations for a relocated facility.

2 PROJECT INFORMATION

2.1 Facility Description

The CG Roxane Olancha Facility bottles spring water from groundwater wells located on the site. The bottling facility is divided into two production and warehouse areas labeled as Olancha North and Olancha South on Sheet S1 of the SWPPP site plans. The entire site includes 19 acres of impervious surface consisting of roofs, concrete pads, and asphalt paving.

There are three bottling lines each in Olancha North and South. The bottling lines produce wastewater through line filter cleaning and also rinsing of the lines during operation. The line and filter cleaning water discharge from Olancha North and South to a retention pond located east of Olancha North at an average rate of 36gpm.

Quarterly the arsenic removal units are cleaned using a regeneration process where caustic soda is added to regenerate the arsenic removal media. Further discussion of the facility's wastewater discharge processes and characterization are provided in the Revised Report of Waste Discharge dated April 18, 2016.

Some bottling line process wastewater from Olancha South is collected via floor drains that outflow into a lined fire flow storage pond at the south end of the site. The process wastewater is just spring water and is estimated to flow into the fire pond at a rate of 1.6gpm. The fire pond has an overflow pipe which discharges to CG Roxane property south of the facility.

2.2 Site Drainage

There are no bodies of water on the CG Roxane property. The surface watershed identified in the vicinity of the plant site is the Owens Lake dry lake bed.

The site is divided into three drainage areas as shown on Figure A. The northerly 70% (13.1 acres) of the facility is intercepted in a storm drain system which is routed to the east pond. The southerly one quarter of the sites (1.8 acres) impervious surfaces is intercepted via storm drain inlets that discharge to an onsite drainage swale. The drainage swale flows offsite at the location shown on SWPPP Sheet S2 and Figure A. Runoff from approximately 3.9 acres of roof surface from plant sites 1, 2, and 3 and the northerly warehouse sheet flow onto the ground west of those buildings. The runoff percolates into the ground directly due to the fast infiltration rate of the soil. During intense storm events the runoff may pond, however there are no surface swales or drain inlets to intercept runoff and direct it around the building to the east.

2.3 Planning and Organization (X.D.)

a. Pollution Prevention Team

The individual responsible for the tasks described below is George Castaneda, facility manager for CG Roxane:

- SWPPP management and implementation
- Permit reporting requirements

Regular inspections will be completed as part of the preventative maintenance program described in Chapter 5.

An annual report shall be completed and submitted to the RWQCB each year

b. Other Requirements and Existing Facility Plans

Attached and included by reference are the following documents:

- SPCC (Attachment S)

2.4 Site Map (X.E.)

The site map of the CG Roxane facility is presented on SWPPP Sheet S1. The site is located on 121 acres with the Olancha North and South Bottling Plants and parking area for truck operations and parking covering the westerly 21.6 acres. Sheet S2 presents the facilities surrounding Olancha North and Sheet S3 presents the same for Olancha South. Refer to the attached site map for the following:

- General BMP's
- Site specific BMP's
- Location of drainage facilities
- Maintenance facilities
- Impervious surfaces
- Building locations
- Filtration system storage tanks
- Garbage Dumpster Locations
- Septic system locations

The following information is included on the site map:

a. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; and direction of flow of each drainage area. There are no onsite surface water bodies or areas of soil erosion. There are no nearby water bodies (such as rivers, lakes, and ponds) or municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.

b. Locations of the storm water collection and conveyance system, associated points of discharge, and direction of flow. The process water secondary containment area has an outlet that is valve controlled to allow storm water collected to discharge after a storm event.

c. The outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

d. There have been no locations where materials are directly exposed to precipitation or locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

e. Areas of industrial activity.
The areas of industrial activity are shown on the attached site maps and include the following:

- storage tanks for filtration system process wastewater

- shipping and receiving areas
- vehicle and equipment parking areas
- sewage septic/holding tank locations
- cleaning and company vehicle maintenance area
- forklift
- wood pallet storage areas

3 POTENTIAL POLLUTANT SOURCES AND BMPS

3.1 List of Industrial Materials (X.F.)

Significant materials handled and stored on the site include the following:

- Hydraulic fluid and oils for forklift maintenance
- Bottling line and filtration cleaning fluids
- Garbage
- Bottling line process water
- Diesel fuel for Husky motors and fire pumps

3.2 Description of Potential Pollutant Sources (X.G.)

a. Industrial activities

ii. Industrial Processes

- Bottling line processing water
- Garbage Disposal and Collection
- Sewage holding tanks
- Filtration system cleaning process wastewater
- Forklift maintenance area with hydraulic fluid and oils stored in outside containers.

Existing site features that, as a result of past usage, may contribute pollutants to storm water (e.g., toxic materials that are known to have been treated, stored, disposed, spilled, or leaked onto the site) include:

- Hydraulic fluid and oil for forklift maintenance: A 55 gallon above ground polytank contains hydraulic oil located in the forklift maintenance area in the southeast portion of the facility. Waste oil is located in tank with secondary containment. Forklift maintenance and wash down area is on and wash down area is on a recessed slab. Washdown water is pumped to a 330 gallon poly tote tank. Waste oil and wash down water are disposed of offsite.
-
- Garbage is disposed of in covered containers that are directly connected to the buildings. All cardboard and plastic waste is recycled into covered bins connected to the buildings without external exposure.

- Sewage from employee bathroom and sinks flows into septic tanks that pumped regularly and disposed of offsite. High level alarm system are located in all septic tanks. Pumping of sewage occurs through hoses dropped into the tanks.

- Bottling line process water is spring water from rinsing and overfilling of bottles. Process water outflows to east percolation pond via storm drains at the north plant and to the firepond at the south plant. The firepond overflows to the CG Roxane property to the south and percolates into the ground.

ii. Material Handling and Storage Areas (X.G.1.b.)

- All materials for building maintenance are shipped, received, loaded, handled and stored inside the Maintenance Building. These items are not exposed to stormwater at any time.
- Fuel storage tanks for the fire pumps are encompassed by a secondary containment vessel.

iii. Dust and Particulate Generating Activities (X.G.1.c.)

This site does not include industrial activities that generate dust or particulates that may be deposited within the facility's boundaries.

iv. Significant Spills and Leaks (X.G.1.d.)

The filtration system cleaning process wastewater was directed to a lined pond in the past where it would evaporate between cleaning periods. The liner developed leaks and the cleaning process water percolated into the soil. The pond has since been removed from use and replaced with the tanks.

v. Non-Storm Water Discharges (X.G.1.e.)

There have been no significant non-storm water discharges from this site.

vi. Soil Erosion (X.G.1.f.)

There has not been any location where soil erosion has occurred on this site due to industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

3.3 Assessment of Potential Pollutant Sources **(X.G.2.)**

Oil, grease, hydraulic fluids, etc. are stored in the forklift maintenance area with full secondary containment provided and an oil/water separator.

The facility has full secondary containment for all diesel fuel storage tanks that a supply the fire diesel engine. Oil/Water separators are provided to intercept any potential oil discharge from critical storage structures.

All structures use septic tanks.

The RWQCB, Lahontan Region requires coverage of the site under SRWQCB NPDES General Permit No. CAS000001.

The purpose of the regulations is to protect water quality by reducing the amount of pollutants in storm water. The permit covers the entire site facility.

The following items have been identified as possible non-storm water discharges:

a. Fire-hydrant and fire prevention or response system testing;
b. Drinking fountain water; atmospheric condensate, including refrigeration , air conditioning, and compressor condensate;
c. Irrigation drainage and landscape watering;
d. Vehicle and Equipment washing.

Control measures for the non-storm water discharges are addressed in BMP SC-10.

3.4 Storm Water Best Management Practices (X.H.)

3.4.1 Minimum BMPs (X.H.1.)

i. Good Housekeeping (X.H.1.a)
Good housekeeping consists of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance (X.H.1.b)
Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems. Inspection and maintenance of storage tanks for oil, fuel, and process wastewater, secondary containment for storage tanks and septic tank.

iii. Spill Response (X.H.1.c)
This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

iv. Material Handling and Storage (X.H.1.d)
This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

Waste Materials are placed in the two garbage dumpsters. These dumpsters are emptied once weekly by Mammoth Disposal. Waste material is taken to the Mammoth Disposal waste facility in Mammoth Lakes.

v. Erosion and Sediment Controls (X.H.1.e)
All areas of runoff are directed to sediment collection trenches, swales, or landscape areas to control potential erosion.

vi. Employee Training (X.H.1.f)
Employees who are directly involved with storm water management issues will be properly trained regarding their responsibilities and the importance of meeting the goal of the SWPPP. Training will address each component of this SWPPP, including how and why each task is to be implemented. The training will address prevention and response, good housekeeping, and material management practices.

The training will be completed annually. New employees will be trained as part of the employee orientation.

Documentation of all employees involved in training will be maintained. Training form is attached.

vii. Quality Assurance and Record Keeping (X.H.1.g)
This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted. These procedures include a peer review process from staff at the facility.

The SWPPP manager identified on the cover of this report will be responsible to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

3.4.2 Advanced BMPs (X.H.2.)

All fuels and oils are stored in double-wall tanks with full containment or tanks on secondary containment units. The CG Roxane Olancha Facility has an adequate supply of spill kits, consisting of absorptive blankets and rolls, and personnel trained to use these materials, to absorb and clean up any spills that occur in the areas adjacent to the tanks. After use these materials are properly disposed of.

CG Roxane monitors and maintains the percolation pond to which storm water from the majority of the impervious surfaces drains. No debris that could produce contaniments to the storm water is stored in areas subject to rainfall. Solid waste is generated within the buildings.

Existing septic tanks are inspected at least twice a week when pumping of the tanks occurs. The tanks are maintained in good operating condition.

All existing BMPs for fueling, oils, cooling fluids, etc., will be continued. All systems will be monitored on a monthly basis and any deficiencies corrected.

i. Overhead Coverage
   The storage facility is completely enclosed to provide coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.
ii. Retention Ponds
   a. East Pond: The east pond retains and percolates stormwater runoff from approximately 13.1 acres of roof and paving surfaces. Additionally Olancha North bottling process water and Olancha North and South filtration cleaning process wastewater (when pH is tested low enough) outflows to this pond.
      The east pond has adequate capacity to contain and percolate the runoff from a 25 year, 24 hour storm event (3.15” per NOAA) and 36,000 gallons of filtration cleaning wastewater while bottling process water of 36gpm is flowing into the pond over 16 hours (two shifts) of operation.
      A percolation (bio-retention) pond is being excavated to percolate the bottling line process water from Olancha south at a flow rate of 2gpm.

   There are no retention ponds on-site.
iii. Control Devices
   Stormwater is directed toward inlets that outflow to the east pond (majority of the site) or into runoff comes in contact with potential contaminants.
iv. Secondary Containment Structures
   Containment structures are being installed around the filter cleaning process wastewater storage tanks. All hydraulic oil, fuel, and motor oil tanks include secondary containment.
v. Treatment

Runoff collected on the site is directed toward infiltration devices (East pond) or vegetative swales that reduces the pollutants in storm water discharges.

3.5 Temporary Suspension of Industrial Activities (X.H.3.)

The CG Roxane Olancha Facility does not intend to suspend industrial activities however if a temporary suspension of industrial activities for ten (10) or more consecutive calendar days during a reporting year, the Discharger may also suspend monitoring if it is infeasible to conduct monitoring while industrial activities are suspended (e.g., the facility is not staffed, or the facility is inaccessible) and the facility has been stabilized. The Discharger shall include in the SWPPP the BMPs necessary to achieve compliance with this General Permit during the temporary suspension of the industrial activity. Once all necessary BMPs have been implemented to stabilize the facility, the Discharger is not required to:

a. Perform monthly visual observations (Section XI.A.1.a.)
b. Perform sampling and analysis (Section XI.B.) if it is infeasible to do so (e.g. facility is remotely located).

The Discharger shall upload via SMARTS (7) seven calendar days prior to the planned temporary suspension of industrial activities:

a. SWPPP revisions specifically addressing the facility stabilization BMPs;
b. The justification for why monitoring is infeasible at the facility during the period of temporary suspension of industrial activities
c. The date the facility is fully stabilized for temporary suspension of industrial activities; and
d. The projected date that industrial activities will resume at the facility. Upon resumption of industrial activities at the facility, the Discharger shall, via SMARTS, confirm and/or update the date the facility's industrial activities have resumed. At this time, the Discharger is required to resume all compliance activities under this General Permit. The Regional Water Boards may review the submitted information pertaining to the temporary suspension of industrial activities. Upon review, the Regional Water Board may request revisions or reject the Discharger's request to temporarily suspend monitoring.

3.6 BMP Descriptions (X.H.4.)

BMPs listed below will be implemented as shown on the SWPPP plans. Summary Table in Attachment C identifies industrial activity, associated pollutant sources, pollutants for each BPM being implemented.

CG Roxane will monitor and maintain all BMPS in good condition so they will continue to function as intended.

SC-10	Non-Storm Water Discharges
SC-11	Spill Prevention, Control & Clean up
SC-31	Outdoor Liquid Container Storage
SC-21	Vehicle and Equipment Cleaning
SC-22	Vehicle and Equipment Repair
SC-30	Outdoor Loading/Unloading
SC-31	Outdoor Liquid Storage Container
SC-32	Outdoor Equipment Operations

SC-34 Waste Handling & Disposal
SC-35 Safer Alternative Products
SC-41 Building & Grounds Maintenance
SC-43 Parking/Storage Area Maintenance
SC-44 Drainage System Maintenance
TC-30 Vegetative Swale
TC-32 Bio-retention

BMPs listed above will be implemented as shown on the SWPPP plans. Summary Table in Appendix C further describes each BMP implemented.

3.6.1 BMP Implementation Schedule

The recommended BMP will be implemented within the timeframe indicated below:

BMPs	Implementation
Good Housekeeping	Daily
Preventive Maintenance	Daily
Spill Response	As needed
Material Handling and Waste Management	Daily
SD system inspection and maintenance	Annually (Sep 1st – Oct 1st) & Monthly during wet season (Oct 15th – April 15th)
Inspect all equipment and vehicles for leaking fluids	Daily
Vehicle Maintenance	As needed
Non-Storm Water Discharge	On-going
Employee Training	On-going

3.7 BMP Summary Table (X.H.5.)

The following table summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.

AREA	SOURCE DESCRIPTION	POTENTIAL POLLUTANTS	IMPLEMENTED BMPS
Forklift/ Vehicle Maintenance	equipment/vehicles	Petroleum Hydrocarbons, Oil, Grease,	SC-11 Spill Prevention, Control & Clean up SC-31 Outdoor Liquid Container Storage SC-21 Vehicle and Equipment Cleaning SC-22 Vehicle and Equipment Repair SC-30 Outdoor Loading/Unloading SC-32 Outdoor Equipment Operations SC-34 Waste Handling & Disposal SC-44 Drainage System Maintenance
Facility Paved Area	equipment/vehicles truck staging and loading areas	Petroleum Hydrocarbons, Oil, Grease, Anti-freeze	SC-30 Outdoor Loading/Unloading SC-34 Waste Handling & Disposal SC-43 Parking/Storage Area Maintenance TC-32 Bio-retention
Septic Tanks	Bottling line, spring	Sewage, process	SC-11 Spill Prevention, Control & Clean up

Processing wastewater tanks	water filtration system, and restrooms	wastewater	SC-31 Outdoor Liquid Container Storage
South storm drain outfall	Truck staging and loading; forklift maintenance area	Petroleum hydrocarbons, pH	SC-11 Spill Prevention, Control & Clean up TC-30 Vegetative Swale SC-44 Drainage System Maintenance

3.8 Design Storm Standards for Treatment Control BMPs (X.H.6.)

Treatment Control BMP's that will be installed during or after the coverage under Order 2014-0057-DWQ begins:

- Secondary containment of cleaning wastewater storage tanks will be constructed.
- South Pond: Pond will be excavated to percolate the bottling line process water from the south plant of 1.6gpm plus the 25 year, 24 hour storm event.

4 MONITORING PROGRAM AND REPORTING REQUIREMENTS

4.1 Implementation Schedule

The Monitoring Program will be implemented and the following Monitoring requirements will be met.

4.2 Objectives

The objectives of the monitoring program are to:

- Ensure that storm water discharges are in compliance with the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations specified in this General Permit.

- Ensure practices at the facility to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges are evaluated and revised to meet changing conditions.

- Aid in the implementation and revision of the SWPPP required by Section A of this General Permit.

- Measure the effectiveness of best management practices (BMPs) to prevent or reduce pollutants in storm water discharges and authorized non-storm water discharges. Much of the information necessary to develop the monitoring program, such as discharge locations, drainage areas, pollutant sources, etc., is found in the Storm Water Pollution Prevention Plan (SWPPP).

4.3 Non-storm Water Discharge Visual Observations

a) Facility operators shall visually observe all drainage areas within their facilities for the presence of unauthorized non-storm water discharges;

b) Facility operators shall visually observe the facility's authorized non-storm water discharges and their sources;

c) The visual observations required above shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours1. Quarterly visual observations shall be conducted in each of the following periods: January-March, April-June, July-September, and October- December. Facility operators shall conduct quarterly visual observations within 6-18 weeks of each other.

d) Visual observations shall document the presence of any discolorations, stains, odors, floating materials, etc., as well as the source of any discharge. Records shall be maintained of the visual observation dates, locations observed, observations, and response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Section A of the General Permit.

4.4 Storm Water Discharge Visual Observations (XI.A.)

4.4.1 Monthly Visual Observations (XI.A.1)

a) At least once per calendar month, the Discharger shall visually observe each drainage area for the following:
   i) The presence or indications of prior, current, or potential unauthorized NSWDs and their sources;
   ii) Authorized NSWDs, sources, and associated BMPs to ensure compliance with Section IV.B.3 of the General Permit; and,
   iii) Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants.

b) The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation.

c) The Discharger shall provide an explanation in the Annual Report for uncompleted monthly visual observations.

4.4.2 Sampling Event Visual Observations (XI.A.2)

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Discharger shall observe the discharge of storm water associated with industrial activity.

a) The Discharger shall ensure that visual observations of storm water discharged from containment sources (e.g. secondary containment or storage ponds) are conducted at the time that the discharge is sampled.

b) Any Discharger employing volume-based or flow-based treatment BMPs shall sample any bypass that occurs while the visual observations and sampling of storm water discharges are conducted.

c) The Discharger shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.

d) In the event that a discharge location is not visually observed during the sampling event, the Discharger shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location.

e) The Discharger shall provide an explanation in the Annual Report for uncompleted sampling event visual observations.

4.4.3 Visual Observation Records (XI.A.3)

The Discharger shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

1) The Discharger shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.

4.5 Sampling and Analysis (XI.B.)

1) A Qualifying Storm Event (QSE) is a precipitation event that:
   a) Produces a discharge for at least one drainage area; and,

b) Is preceded by 48 hours with no discharge from any drainage area.

2) The Discharger shall collect and analyze storm water samples from two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30).

3) Compliance Group Participants are only required to collect and analyze storm water samples from one (1) QSE within the first half of each reporting year (July 1 to December 31) and one (1) QSE within the second half of the reporting year (January 1 to June 30).

4) Except as provided in Section XI.C.4 of the General Permit (Representative Sampling Reduction), samples shall be collected from each drainage area at all discharge locations. The samples must be:
   a) Representative of storm water associated with industrial activities and any commingled authorized NSWDs; or
   b) Associated with the discharge of contained storm water

5) Samples from each discharge location shall be collected within four (4) hours of:
   a) The start of the discharge; or,
   b) The start of facility operations if the QSE occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night for facilities with day-time operating hours). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe in accordance with Section XI.C.6.a.ii of the General Permit

6) The Discharger shall analyze all collected samples for the following parameters:
   a) Total suspended solids (TSS) and oil and grease (O&G);
   b) pH (see Section XI.C.2 of the General Permit);
   c) Additional parameters identified by the Discharger on a facility-specific basis that serve as indicators of the presence of all industrial pollutants identified in the pollutant source assessment. These additional parameters may be modified (added or removed) in accordance with any updated SWPPP pollutant source assessment;
   d) Additional applicable parameters listed in Table 1 (Section XI.B of the General Permit). These parameters are dependent on the facility Standard Industrial Classification (SIC) code(s);
   e) Additional applicable industrial parameters related to receiving waters with 303(d) listed impairments or approved TMDLs based on the assessment in Section X.G.2.a.ix of the General Permit. Test methods with lower detection limits may be necessary when discharging to receiving waters with 303(d) listed impairments or TMDLs;
   f) Additional parameters required by the Regional Water Board. The Discharger shall contact its Regional Water Board to determine appropriate analytical test methods for parameters not listed in Table 2 (Section XI.B of the General Permit). These analytical test methods will be added to SMARTS; and
   g) For discharges subject to Subchapter N, additional parameters specifically required by Subchapter N. If the discharge is subject to ELGs, the Dischargers shall contact the Regional Water Board to determine appropriate analytical methods for parameters not listed in Table 2 (Section XI.B of the General Permit).

7) The Discharger shall select corresponding NALs, analytical test methods,, and reporting units from the list provided in Table 2 (Section XI.B of the General Permit).. SMARTS will be updated over time to add additional acceptable analytical test methods. Dischargers may propose an analytical test method for any parameter or pollutant that does not have an analytical test method specified in Table 2 (Section XI.B of the General Permit) or in SMARTS. Dischargers may also propose analytical test methods with substantially similar or

more stringent method detection limits than existing approved analytical test methods. Upon approval, the analytical test method will be added to SMARTS.

8) The Discharger shall ensure that the collection, preservation and handling of all storm water samples are in accordance with Attachment H of the General Permit, Storm Water Sample Collection and Handling Instructions.
9) Samples from different discharge locations shall not be combined or composited except as allowed in Section XI.C.5 of the General Permit (Qualified Combined Samples).
10) The Discharger shall ensure that all laboratory analyses are conducted according to test procedures under 40 Code of Federal Regulations part 136, including the observation of holding times, unless other test procedures have been specified in this General Permit or by the Regional Water Board.
11) Sampling Analysis Reporting
    a) The Discharger shall submit all sampling and analytical results for all individual or Qualified Combined Samples via SMARTS within 30 days of obtaining all results for each sampling event.
    b) The Discharger shall provide the method detection limit when an analytical result from samples taken is reported by the laboratory as a "non-detect" or less than the method detection limit. A value of zero shall not be reported.
    c) The Discharger shall provide the analytical result from samples taken that is reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit. Reported analytical results will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero (0) for all results less than the minimum level as reported by the laboratory.

4.6 Methods and Exceptions (XI.C.)

4.6.1 Compliance (XI.C.1)

a) The Discharger shall comply with the monitoring methods in the General Permit.

4.6.2 pH Methods (XI.C.2)

a. Dischargers that are not subject to Subchapter N ELGs mandating pH analysis related to acidic or alkaline sources and have never entered Level 1 status for pH, are eligible to screen for pH using wide range litmus pH paper or other equivalent pH test kits. The pH screen shall be performed as soon as practicable, but no later than 15 minutes after the sample is collected.
b. Dischargers subject to Subchapter N ELGs shall either analyze samples for pH using methods in accordance with 40 Code of Federal Regulations 136 for testing storm water or use a calibrated portable instrument for pH.
c. Dischargers that enter Level 1 status (see Section XII.C) for pH shall, in the subsequent reporting years, analyze for pH using methods in accordance with 40 Code of Federal Regulations 136 or use a calibrated portable instrument for pH.
d. Dischargers using a calibrated portable instrument for pH shall ensure that all field measurements are conducted in accordance with the accompanying manufacturer's instructions.

4.6.3 Alternative Discharge Locations (XI.C.3)

a. The Discharger is required to identify, when practicable, alternative discharge locations for any discharge locations identified in accordance with Section XI.B.4 if the facility's discharge locations are:
   i. Affected by storm water run-on from surrounding areas that cannot be controlled; and/or,
   ii. Difficult to observe or sample (e.g. submerged discharge outlets, dangerous discharge location accessibility).
b. The Discharger shall submit and certify via SMARTS any alternative discharge location or revisions to the alternative discharge locations in the Monitoring Implementation Plan.

4.6.4 Representative Sampling Reduction (XI.C.4)

a. The Discharger may reduce the number of locations to be sampled in each drainage area (e.g., roofs with multiple downspouts, loading/unloading areas with multiple storm drains) if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) of the drainage area for each location to be sampled are substantially similar to one another. To qualify for the Representative Sampling Reduction, the Discharger shall provide a Representative Sampling Reduction justification in the Monitoring Implementation Plan section of the SWPPP.
b. The Representative Sampling Reduction justification shall include:
   i. Identification and description of each drainage area and corresponding discharge location(s);
   ii. A description of the industrial activities that occur throughout the drainage area;
   iii. A description of the BMPs implemented in the drainage area;
   iv. A description of the physical characteristics of the drainage area;
   v. A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar; and,
   vi. An identification of the discharge location(s) selected for representative sampling, and rationale demonstrating that the selected location(s) to be sampled are representative of the discharge from the entire drainage area.
c. A Discharger that satisfies the conditions of subsection 4.b.i through v above shall submit and certify via SMARTS the revisions to the Monitoring Implementation Plan that includes the Representative Sampling Reduction justification.
d. Upon submittal of the Representative Sampling Reduction justification, the Discharger may reduce the number of locations to be sampled in accordance with the Representative Sampling Reduction justification. The Regional Water Board may reject the Representative Sampling Reduction justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Representative Sampling Reduction until the Regional Water Board approves the Representative Sampling Reduction justification.

4.6.5 Qualified Combined Samples (XI.C.5)

a. The Discharger may authorize an analytical laboratory to combine samples of equal volume from as many as four (4) discharge locations if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) within each of the drainage areas are substantially similar to one another.

b. The Qualified Combined Samples justification shall include:
   i. Identification and description of each drainage area and corresponding discharge locations;
   ii. A description of the BMPs implemented in the drainage area;
   iii. A description of the industrial activities that occur throughout the drainage area;
   iv. A description of the physical characteristics of the drainage area; and,
   v. A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar.

c. A Discharger that satisfies the conditions of subsection 5.b.i through iv above shall submit and certify via SMARTS the revisions to the Monitoring Implementation Plan that includes the Qualified Combined Samples justification.

d. Upon submittal of the Qualified Combined Samples justification revisions in the Monitoring Implementation Plan, the Discharger may authorize the lab to combine samples of equal volume from as many as four (4) drainage areas. The Regional Water Board may reject the Qualified Combined Samples justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Qualified Combined Samples justification until the Regional Water Board approves the Qualified Combined Samples justification.

e. Regional Water Board approval is necessary to combine samples from more than four (4) discharge locations.

4.6.6 Sample Collection and Visual Observation Exceptions (XI.C.6)

a) Sample collection and visual observations are not required under the following conditions:
   i. During dangerous weather conditions such as flooding or electrical storms; or,
   ii. Outside of scheduled facility operating hours. The Discharger is not precluded from collecting samples or conducting visual observations outside of scheduled facility operating hours.

b) In the event that samples are not collected, or visual observations are not conducted in accordance with Section XI.B.5 due to these exceptions, an explanation shall be included in the Annual Report.

c) Sample collection is not required for drainage areas with no exposure to industrial activities and materials in accordance with the definitions in Section XVII.

4.6.7 Sampling Frequency Reduction Certification (XI.C.8)

a) Dischargers are eligible to reduce the number of QSEs sampled each reporting year in accordance with the following requirements:
   i. Results from four (4) consecutive QSEs that were sampled (QSEs may be from different reporting years) did not exceed any NALs as defined in Section XII.A; and
   ii. The Discharger is in full compliance with the requirements of this General Permit and has updated, certified and submitted via SMARTS all documents, data, and reports required by this General Permit during the time period in which samples were collected.

b) The Regional Water Board may notify a Discharger that it may not reduce the number of QSEs sampled each reporting year if the Discharger is subject to an enforcement action.

c) An eligible Discharger shall certify via SMARTS that it meets the conditions in subsection 7.a above.

d) Upon Sampling Frequency Reduction certification, the Discharger shall collect and analyze samples from one (1) QSE within the first half of each reporting year (July 1 to December 31), and one (1) QSE within the second half of each reporting year (January 1 to June 30). All other monitoring, sampling, and reporting requirements remain in effect.
e) Dischargers who participate in a Compliance Group and certify a Sampling Frequency Reduction are only required to collect and analyze storm water samples from one (1) QSE within each reporting year.
f) A Discharger may reduce sampling per the Sampling Frequency Reduction certification unless notified by the Regional Water Board that: (1) the Sampling Frequency Reduction certification has been rejected or (2) additional supporting documentation must be submitted. In such instances, a Discharger is ineligible for the Sampling Frequency Reduction until the Regional Water Board provides Sampling Frequency Reduction certification approval. Revised Sampling Frequency Reduction certifications shall be certified and submitted via SMARTS by the Discharger.
g) A Discharger loses its Sampling Frequency Reduction certification if an NAL exceedance occurs (Section XII.A).

4.7 Facilities Subject To Federal Storm Water Effluent Limitation Guidelines (ELGs) (ELGs)

1) In addition to the other requirements in this General Permit, Dischargers with facilities subject to storm water ELGs in Subchapter N shall:
   a) Collect and analyze samples from QSEs for each regulated pollutant specified in the appropriate category in Subchapter N as specified in Section XI.B;
   b) For Dischargers with facilities subject to 40 Code of Federal Regulations parts 41917 and 44318, estimate or calculate the volume of industrial storm water discharges from each drainage area subject to the ELGs and the mass of each regulated pollutant as defined in parts 419 and 443; and,
   c) Ensure that the volume/mass estimates or calculations required in subsection b are completed by a California licensed professional engineer.
2) Dischargers subject to Subchapter N shall submit the information in Section XI.D.1.a through c in their Annual Report.
3) Dischargers with facilities subject to storm water ELGs in Subchapter N are ineligible for the Representative Sampling Reduction in Section XI.C.4.

4.8 Exceedance Response Actions (ERAs) (XII)

4.8.1 NALs and NAL Exceedances(XII.A.)

The Discharger shall perform sampling, analysis and reporting in accordance with the requirements of the General Permit and shall compare the results to the two types of NAL values in Table 2 (Section XI.B of the General Permit) to determine whether either type of NAL has been exceeded for each applicable parameter. The two types of potential NAL exceedances are as follows:

1) Annual NAL exceedance (XII.A.1)
   a) The Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting

year (i.e., all "effluent" data). The Discharger shall compare the average concentration for each parameter to the corresponding annual NAL values in Table 2 (Section XI.B of the General Permit). For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA's NPDES Storm Water Sampling Guidance Document.19 An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for that parameter listed in Table 2(Section XI.B of the General Permit) and,

2) Instantaneous maximum NAL exceedance (XII.A.2)
   a) The Discharger shall compare all sampling and analytical results from each distinct sample (individual or combined as authorized by XI.C.5) to the corresponding instantaneous maximum NAL values in Table 2 (Section XI.B of the General Permit). An instantaneous maximum NAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G) or are outside of the instantaneous maximum NAL range for pH.

4.8.2 Baseline Status (XII.B.)

At the beginning of a Discharger's NOI Coverage, all Dischargers have Baseline status for all parameters.

4.8.3 Level 1 Status (XII.C.)

A Discharger's Baseline status for any given parameter shall change to Level 1 status if sampling results indicate an NAL exceedance for that same parameter. Level 1 status will commence on July 1 following the reporting year during which the exceedance(s) occurred.

4.8.3.1 Level 1 ERA Evaluation

a) By October 1 following commencement of Level 1 status for any parameter with sampling results indicating an NAL exceedance, the Discharger shall:
b) Complete an evaluation, with the assistance of a QISP, of the industrial pollutant sources at the facility that are or may be related to the NAL exceedance(s); and,
c) Identify in the evaluation the corresponding BMPs in the SWPPP and any additional BMPs and SWPPP revisions necessary to prevent future NAL exceedances and to comply with the requirements of this General Permit. Although the evaluation may focus on the drainage areas where the NAL exceedance(s) occurred, all drainage areas shall be evaluated.

4.8.3.2 Level 1 ERA Report

d) Based upon the above evaluation, the Discharger shall, as soon as practicable but no later than January 1 following commencement of Level 1 status :
   i) Revise the SWPPP as necessary and implement any additional BMPs identified in the evaluation;
   ii) Certify and submit via SMARTS a Level 1 ERA Report prepared by a QISP that includes the following:
      (1) A summary of the Level 1 ERA Evaluation required in subsection C.1 above; and,
      (2) A detailed description of the SWPPP revisions and any additional BMPs for each parameter that exceeded an NAL.
   iii) Certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address).

e) A Discharger's Level 1 status for a parameter will return to Baseline status once a Level 1 ERA report has been completed, all identified additional BMPs have been implemented, and results from four (4) consecutive QSEs that were sampled subsequent to BMP implementation indicate no additional NAL exceedances for that parameter.

4.8.3.3 NAL Exceedances Prior to Implementation of Level 1 Status BMPs

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1, whichever comes first, sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances in SMARTS.

4.8.4 Level 2 Status (XII.D.)

A Discharger's Level 1 status for any given parameter shall change to Level 2 status if sampling results indicate an NAL exceedance for that same parameter while the Discharger is in Level 1. Level 2 status will commence on July 1 following the reporting year during which the NAL exceedance(s) occurred.

4.8.4.1 Level 2 ERA Action Plan

a) Dischargers with Level 2 status shall certify and submit via SMARTS a Level 2 ERA Action Plan prepared by a QISP that addresses each new Level 2 NAL exceedance by January 1 following the reporting year during which the NAL exceedance(s) occurred. For each new Level 2 NAL exceedance, the Level 2 Action Plan will identify which of the demonstrations in subsection D.2.a through c the Discharger has selected to perform. A new Level 2 NAL exceedance is any Level 2 NAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.
b) The Discharger shall certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address) if this information has changed since previous certifications.
c) The Level 2 ERA Action Plan shall at a minimum address the drainage areas with corresponding Level 2 NAL exceedances.
d) All elements of the Level 2 ERA Action Plan shall be implemented as soon as practicable and completed no later than 1 year after submitting the Level 2 ERA Action Plan.
e) The Level 2 ERA Action Plan shall include a schedule and a detailed description of the tasks required to complete the Discharger's selected demonstration(s) as described below in Section D.2.a through c.

4.8.4.2 Level 2 ERA Technical Report

On January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, a Discharger with Level 2 status shall certify and submit a Level 2 ERA Technical Report prepared by a QISP that includes one or more of the following demonstrations:

f) Industrial Activity BMPs Demonstration. This shall include the following requirements, as applicable:
   i) Shall include a description of the industrial pollutant sources and corresponding industrial pollutants that are or may be related to the NAL exceedance(s);
   ii) Shall include an evaluation of all pollutant sources associated with industrial activity that are or may be related to the NAL exceedance(s);
   iii) Where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this General Permit and are expected to eliminate future NAL exceedance(s), the Discharger shall provide a description and analysis of all implemented BMPs;

iv) In cases where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this General Permit but are not expected to eliminate future NAL exceedance(s), the Discharger shall provide, in addition to a description and analysis of all implemented BMPs:
(1) An evaluation of any additional BMPs that would reduce or prevent NAL exceedances;
(2) Estimated costs of the additional BMPs evaluated; and,
(3) An analysis describing the basis for the selection of BMPs implemented in lieu of the additional BMPs evaluated but not implemented.

v) The description and analysis of BMPs required in subsection a.iii above shall specifically address the drainage areas where the NAL exceedance(s) responsible for the Discharger's Level 2 status occurred, although any additional Level 2 ERA Action Plan BMPs may be implemented for all drainage areas; and,

vi) If an alternative design storm standard for treatment control BMPs (in lieu of the design storm standard for treatment control BMPs in Section X.H.6 in this General Permit) will achieve compliance with the effluent limitations of this General Permit, the Discharger shall provide an analysis describing the basis for the selection of the alternative design storm standard.

4.8.4.3 Non-Industrial Pollutant Source Demonstration

i) A statement that the Discharger has determined that the exceedance of the NAL is attributable solely to the presence of non-industrial pollutant sources. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance.) The sources shall be identified as either run-on from adjacent properties, aerial deposition from man-made sources, or as generated by on-site non-industrial sources;

ii) A statement that the Discharger has identified and evaluated all potential pollutant sources that may have commingled with storm water associated with the Discharger's industrial activity and may be contributing to the NAL exceedance;

iii) A description of any on-site industrial pollutant sources and corresponding industrial pollutants that are contributing to the NAL exceedance;

iv) An assessment of the relative contributions of the pollutant from (1) storm water run-on to the facility from adjacent properties or nonindustrial portions of the Discharger's property or from aerial deposition and (2) the storm water associated with the Discharger's industrial activity;

v) A summary of all existing BMPs for that parameter; and,

vi) An evaluation of all on-site/off-site analytical monitoring data demonstrating that the NAL exceedances are caused by pollutants in storm water run-on to the facility from adjacent properties or nonindustrial portions of the Discharger's property or from aerial deposition.

4.8.4.4 Natural Background Pollutant Source Demonstration

i) A statement that the Discharger has determined that the NAL exceedance is attributable solely to the presence of the pollutant in the natural background that has not been disturbed by industrial activities. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance);

ii) A summary of all data previously collected by the Discharger, or other identified data collectors, that describes the levels of natural background pollutants in the storm water discharge;
iii) A summary of any research and published literature that relates the pollutants evaluated at the facility as part of the Natural Background Source Demonstration;
iv) Map showing the reference site location in relation to facility along with available land cover information;
v) Reference site and test site elevation;
vi) Available geology and soil information for reference and test sites;
vii) Photographs showing site vegetation;
viii) Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures; and,
ix) Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site.

4.8.4.5 Level 2 ERA Technical Report Submittal

a) The Discharger shall certify and submit via SMARTS the Level 2 ERA Technical Report described in Section D.2 above.
b) The State Water Board and Regional Boards (Water Boards) may review the submitted Level 2 ERA Technical Reports. Upon review of a Level 2 ERA Technical Report, the Water Boards may reject the Level 2 ERA Technical Report and direct the Discharger to take further action(s) to comply with this General Permit.
c) Dischargers with Level 2 status who have submitted the Level 2 ERA Technical Report are only required to annually update the Level 2 ERA Technical Report based upon additional NAL exceedances of the same parameter and same drainage area (if the original Level 2 ERA Technical Report contained an Industrial Activity BMP Demonstration and the implemented BMPs were expected to eliminate future NAL exceedances in accordance with Section XII.D.2.a.ii), facility operational changes, pollutant source(s) changes, and/or information that becomes available via compliance activities (monthly visual observations, sampling results, annual evaluation, etc.). The Level 2 ERA Technical Report shall be prepared by a QISP and be certified and submitted via SMARTS by the Discharger with each Annual Report. If there are no changes prompting an update of the Level 2 ERA Technical Report, as specified above, the Discharger will provide this certification in the Annual Report that there have been no changes warranting re-submittal of the Level 2 ERA Technical Report.
d) Dischargers are not precluded from submitting a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status if information is available to adequately prepare the report and perform the demonstrations described above. A Discharger who chooses to submit a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status will automatically be placed in Level 2 in accordance to the Level 2 ERA schedule.

4.8.4.6 Eligibility for Returning to Baseline Status

a) Dischargers with Level 2 status who submit an Industrial Activity BMPs Demonstration in accordance with subsection 2.a.i through iii above and have implemented BMPs to prevent future NAL exceedance(s) for the Level 2 parameter(s) shall return to baseline status for that parameter, if results from four (4) subsequent consecutive QSEs sampled indicate no additional NAL exceedance(s) for that parameter(s). If future NAL exceedances occur for the same parameter(s), the Discharger's Baseline status will return to Level 2 status on July 1 in the subsequent reporting year during which the NAL exceedance(s) occurred. These Dischargers shall update the Level 2 ERA Technical Report as required above in Section D.3.c.

b) Dischargers are ineligible to return to baseline status if they submit any of the following:
   i) A industrial activity BMP demonstration in accordance with subsection 2.a.iv above;
   ii) A non-industrial pollutant source demonstration; or,
   iii) A natural background pollutant source demonstration.

4.8.4.7 Level 2 ERA Implementation Extension

a) Dischargers that need additional time to submit the Level 2 ERA Technical Report shall be automatically granted a single time extension for up to six (6) months upon submitting the following items into SMARTS, as applicable:
   i) Reasons for the time extension;
   ii) A revised Level 2 ERA Action Plan including a schedule and a detailed description of the necessary tasks still to be performed to complete the Level 2 ERA Technical Report; and
   iii) A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed.
b) The Regional Water Boards will review Level 2 ERA Implementation Extensions for completeness and adequacy. Requests for extensions that total more than six (6) months are not granted unless approved in writing by the Water Boards. The Water Boards may (1) reject or revise the time allowed to complete Level 2 ERA Implementation Extensions, (2) identify additional tasks necessary to complete the Level 2 ERA Technical Report, and/or (3) require the Discharger to implement additional temporary BMPs.

4.9 Inactive Mining Operation Certification (XIII)

Not applicable to this facility.

4.10 Compliance Groups and Compliance Group Leaders (XIV)

4.10.1 Compliance Group Qualification Requirements (XIV.A)

1) Any group of Dischargers of the same industry type or any QISP representing Dischargers of the same industry type may form a Compliance Group. A Compliance Group shall consist of Dischargers that operate facilities with similar types of industrial activities, pollutant sources, and pollutant characteristics (e.g., scrap metals recyclers would join a different group than paper recyclers, truck vehicle maintenance facilities would join a different group than airplane vehicle maintenance facilities, etc.). A Discharger participating in a Compliance Group is termed a Compliance Group Participant. Participation in a Compliance Group is not required. Compliance Groups may be formed at any time.
2) Each Compliance Group shall have a Compliance Group Leader.
3) To establish a Compliance Group, the Compliance Group Leader shall register as a Compliance Group Leader via SMARTS. The registration shall include documentation demonstrating compliance with the Compliance Group qualification requirements above and a list of the Compliance Group Participants.
4) Each Compliance Group Participant shall register as a member of an established Compliance Group via SMARTS.
5) The Executive Director of the State Water Board may review Compliance Group registrations and/or activities for compliance with the requirements of this General Permit. The Executive

Director may reject the Compliance Group, the Compliance Group Leader, or individual Compliance Group Participants within the Compliance Group.

4.10.2 Compliance Group Leader Responsibilities (XIV.B)

1) A Compliance Group Leader must complete a State Water Board sponsored or approved training program for Compliance Group Leaders. 2
2) The Compliance Group Leader shall assist Compliance Group Participants with all compliance activities required by this General Permit.
3) A Compliance Group Leader shall prepare a Consolidated Level 1 ERA Report for all Compliance Group Participants with Level 1 status for the same parameter. Compliance Group Participants who certify and submit these Consolidated Level 1 ERA Reports are subject to the same provisions as individual Dischargers with Level 1 status, as described in Section XII.C. A Consolidated Level 1 ERA Report is equivalent to a Level 1 ERA Report.
4) The Compliance Group Leader shall update the Consolidated Level 1 ERA Report as needed to address additional Compliance Group Participants with ERA Level 1 status.
5) A Compliance Group Leader shall prepare a Level 2 ERA Action Plan specific to each Compliance Group Participant with Level 2 status. Compliance Group Participants who certify and submit these Level 2 ERA Action Plans are subject to the same provisions as individual Dischargers with Level 2 status, as described in Section XII.D.
6) A Compliance Group Leader shall prepare a Level 2 ERA Technical Report specific to each Compliance Group Participant with Level 2 status. Compliance Group Participants who certify and submit these Level 2 ERA Technical Reports are subject to the same provisions as individual Dischargers with Level 2 status, as described in Section XII.D.
7) The Compliance Group Leader shall inspect all the facilities of the Compliance Group Participants that have entered Level 2 status prior to preparing the individual Level 2 ERA Technical Report.
8) The Compliance Group Leader shall revise the Consolidated Level 1 ERA Report, individual Level 2 ERA Action Plans, or individual Level 2 Technical Reports in accordance with any comments received from the Water Boards.
9) The Compliance Group Leader shall inspect all the facilities of the Compliance Group Participants at a minimum of once per reporting year (July 1 to June 30).

4.10.3 Compliance Group Participant Responsibilities (XIV.C)

1) Each Compliance Group Participant is responsible for permit compliance for the Compliance Group Participant’s facility and for ensuring that the Compliance Group Leader’s activities related to the Compliance Group Participant’s facility comply with this General Permit.
2) Compliance Group Participants with Level 1 status shall certify and submit via SMARTS the Consolidated Level 1 ERA Report. The Compliance Group Participants shall certify that they have reviewed the Consolidated Level 1 ERA Report and have implemented any required additional BMPs. Alternatively, the Compliance Group Participant may submit an individual Level 1 ERA Report in accordance with the provisions in Section XII.C.2.
3) Compliance Group Participants with Level 2 status shall certify and submit via SMARTS their individual Level 2 ERA Action Plan and Technical Report prepared by their Compliance Group Leader. Each Compliance Group Participant shall certify that they have reviewed the Level 2 ERA Action Plan and Technical Report and will implement any required additional BMPs.
4) Compliance Group Participants can at any time discontinue their participation in their associated Compliance Group via SMARTS. Upon discontinuation, the former Compliance

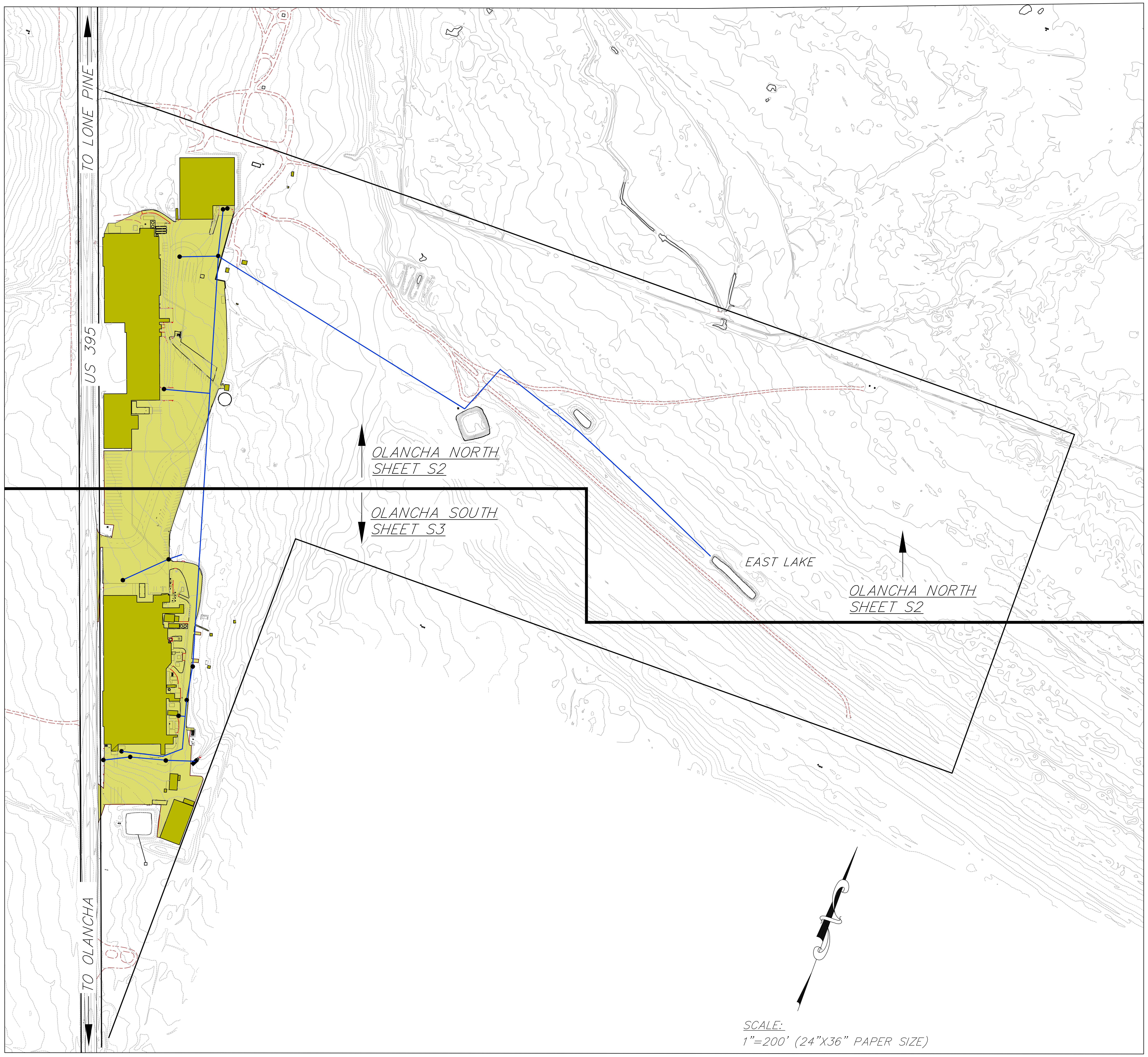
Group Participant is immediately subject to the sampling and analysis requirements described in Section XI.B.2.

Attachment A

Maps

1. Storm Water Pollution Prevention Plan Site Plan (Sheets S1, S2, S3)

INDUSTRIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
CRYSTAL GEYSER BOTTLING PLANT, OLANCHA, CALIFORNIA



VICINITY MAP
NOT TO SCALE

SWPPP INDEX

PROPERTY LOCATION

1210 US 395
OLANCHA CA, 93549

ENGINEER OF RECORD

TRIAD/HOLMES ASSOCIATES
P.O. BOX 1570
MAMMOTH LAKES, CA 93546
760-934-7588

RECORD OWNER

CRYSTAL GEYSER WATER COMPANY
1630 KELOGG DR
WEE, CA

LEGEND

- STORM DRAIN INLET
- DRAINAGE PIPE
- ROOF
- ASPHALT/IMPERVIOUS SURFACE

NOTE:

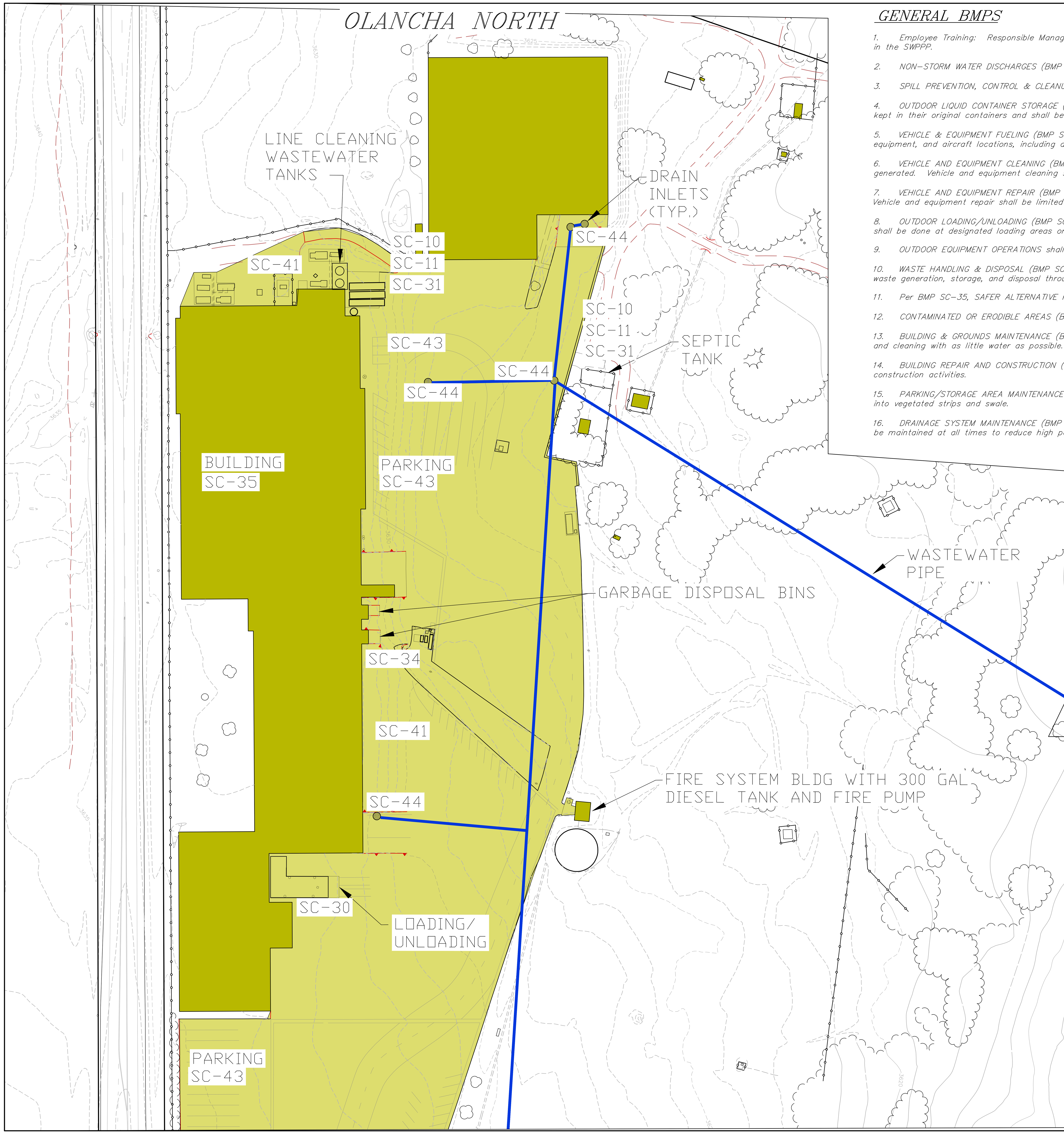
ALL WATER BOTTLING PROCESSES INCLUDING CLEANING AND TREATMENT ARE LOCATED WITHIN THE BUILDING.

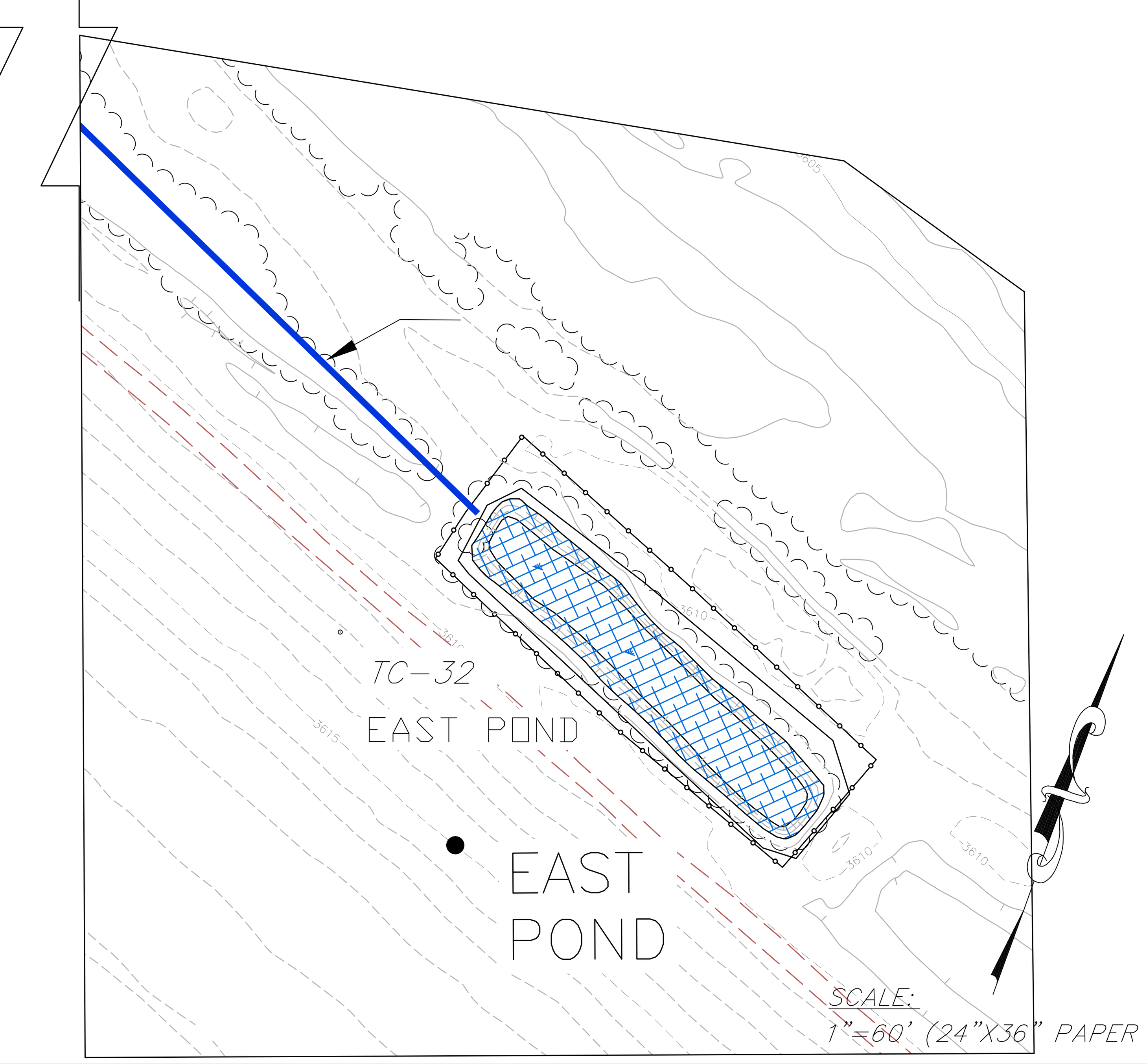
triad/holmes assoc.
civil engineering
land surveying
MAMMOTH LAKES
BISHOP
NAPA
PLEASANTON
REDWOOD CITY
SAN LUIS OBISPO

PREPARED FOR:
CRYSTAL GEYSER WATER COMPANY

CRYSTAL GEYSER BOTTLING PLANT
STORM WATER POLLUTION PREVENTION PLAN
OLANCHA, CALIFORNIA

DATE 04/14/2016
SCALE AS SHOWN
DRAWN MP
JOB NO. 01.0915
DWG S1
SHEET 1 OF 3





SCALE: 1"=60' (24"X36" PAPER SIZE)

GENERAL BMPS

1. Employee Training: Responsible Managers and Employees must be trained appropriately for the Maintenance and Inspection of BMP's. Proof of training shall be filed in the SWPPP.

2. NON-STORM WATER DISCHARGES (BMP SC-10); Used oil, used antifreeze, and hazardous chemical recycling programs shall be implemented.

3. SPILL PREVENTION, CONTROL & CLEANUP (BMP SC-11): Potential spills shall be identified and characterized to eliminate and reduce spill potential.

4. OUTDOOR LIQUID CONTAINER STORAGE (BMP SC-31): Up-to-date inventory of the materials delivered and stored on-site shall be maintained. Chemicals shall be kept in their original containers and shall be accurately labeled.

5. VEHICLE & EQUIPMENT FUELING (BMP SC-20); Fuel-dispensing areas shall be maintained at all times using dry cleanup methods. This BMP shall apply to all vehicle, equipment, and aircraft locations, including all tie-in areas.

6. VEHICLE AND EQUIPMENT CLEANING (BMP SC-21): All washing/cleaning shall be done in areas designated to collect and hold the wash and rinse water or effluent generated. Vehicle and equipment cleaning shall be limited to maintenance equipment only.

7. VEHICLE AND EQUIPMENT REPAIR (BMP SC-22): All equipment repairs shall be done in areas designated to minimize contact of stormwater with outside operations. Vehicle and equipment repair shall be limited to maintenance equipment only.

8. OUTDOOR LOADING/UNLOADING (BMP SC-30): An operations plan that describes procedures for loading and/or unloading shall be developed. All loading/unloading shall be done at designated loading areas only.

9. OUTDOOR EQUIPMENT OPERATIONS shall be implemented per BMP SC-32.

10. WASTE HANDLING & DISPOSAL (BMP SC-34): The discharge of pollutants to stormwater from waste handling and disposal shall be prevented and reduced by tracking waste generation, storage, and disposal through reduction, reuse, and recycling.

11. Per BMP SC-35, SAFER ALTERNATIVE PRODUCTS shall be used as much as possible.

12. CONTAMINATED OR ERODIBLE AREAS (BMP SC-40): Natural vegetation shall be preserved.

13. BUILDING & GROUNDS MAINTENANCE (BMP SC-41): Pollutants to stormwater from building and grounds maintenance activities shall be prevented /reduced by washing and cleaning with as little water as possible.

14. BUILDING REPAIR AND CONSTRUCTION (BMP SC-42): Contractor shall be pro-active in determining which potential pollutants may be generated by repair and construction activities.

15. PARKING/STORAGE AREA MAINTENANCE (BMP SC-43): Parking and storage areas shall be kept clean and orderly at all times. Sheet runoff shall be allowed to flow into vegetated strips and swale.

16. DRAINAGE SYSTEM MAINTENANCE (BMP SC-44): All drainage conveyances including, but not limited to, stormwater inlets, pipes, culverts, trenches, and swales, shall be maintained at all times to reduce high pollutant concentrations during the first flush of storms and prevent clogging.

BMPs

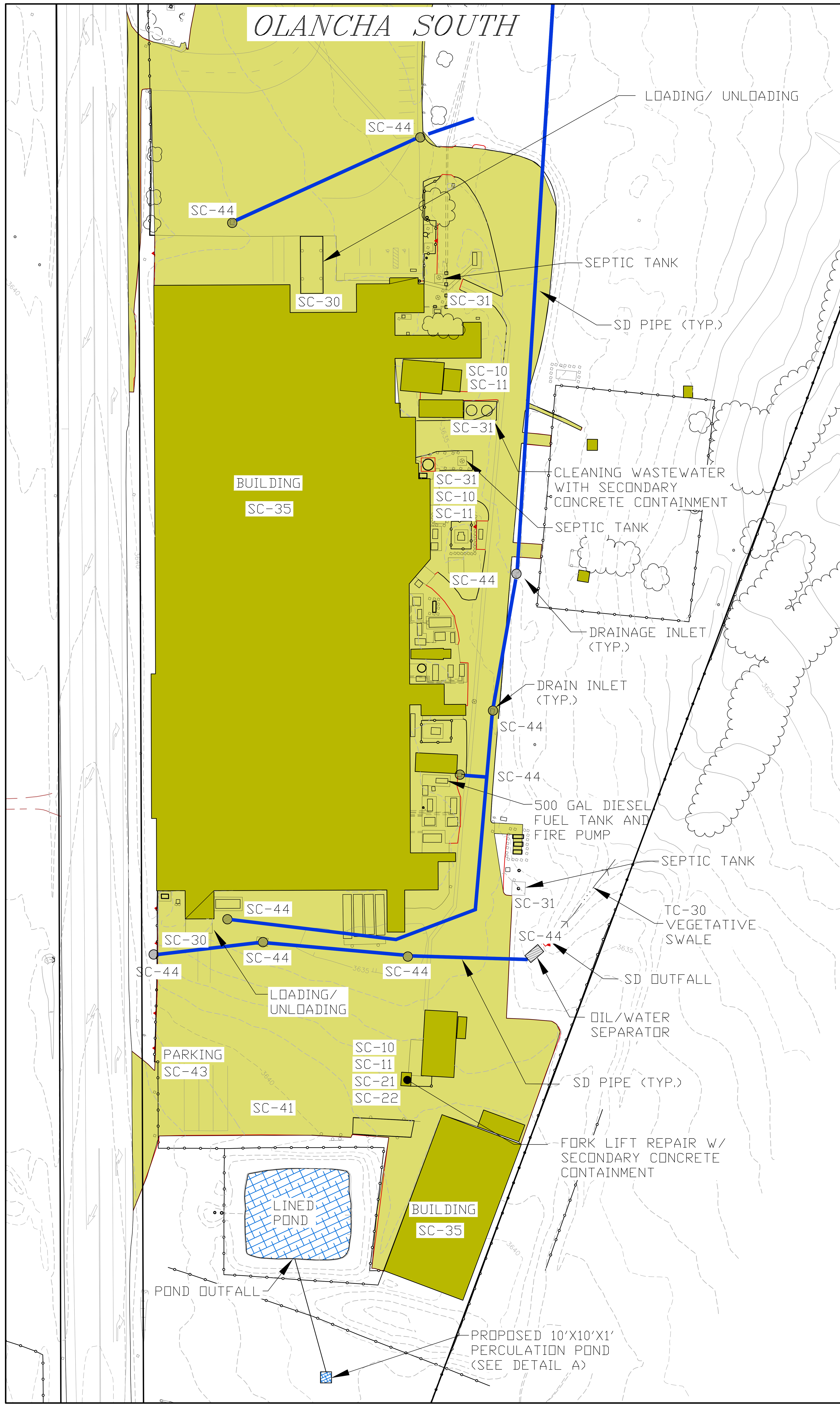
SC-10	NON-STORM WATER DISCHARGES (SEE GENERAL NOTES, SHT. 1)
SC-11	SPILL PREVENTION, CONTROL & CLEANUP (SEE GENERAL NOTES, SHT. 1)
SC-21	VEHICLE AND EQUIPMENT CLEANING
SC-22	VEHICLE AND EQUIPMENT REPAIR
SC-30	OUTDOOR LOADING/ UNLOADING
SC-31	OUTDOOR LIQUID CONTAINER STORAGE
SC-34	WASTE HANDLING & DISPOSAL (SEE GENERAL NOTES, SHT. 1)
SC-35	SAFER ALTERNATIVE PRODUCTS
SC-41	BUILDING & GROUNDS MAINTENANCE
SC-43	PARKING/STORAGE AREA MAINTENANCE
SC-44	DRAINAGE SYSTEM MAINTENANCE (SEE GENERAL NOTES, SHT. 1)
TC-30	VEGETATIVE SWALE
TC-32	TREATMENT CONTROL

triad/holmes assoc.
civil engineering
land surveying
MAMMOTH LAKES
BISHOP
NAPA
PLEASANTON
REDWOOD CITY
SAN LUIS OBISPO

PREPARED FOR:
CRYSTAL GEYSER WATER COMPANY
501 WASHINGTON ST
CALISTOGA, CA 94515
(707) 265-3912

CRYSTAL GEYSER BOTTLING PLANT
STORM WATER POLLUTION PREVENTION PLAN
OLANCHA, CALIFORNIA

DATE 04/14/2016
SCALE AS SHOWN
DRAWN MP
JOB NO. 01.0915
DWG S2
SHEET 2 OF 3



GENERAL SWPPP NOTES:

1. Duty to Comply
This section includes a brief description of the standard provisions of Section C of the General Permit WQ 97-03 DWG (hereinafter referred to as the General Permit). The owner must be in full conformance with all provisions of the General Permit and this brief description in no way reduces the owner's requirements.

The facility operator must comply with all of the conditions of the General Permit.

2. General Permit Actions
The General Permit may be modified, revoked and reissued or terminated for cause.

3. Need to Halt or Reduce Activity not a Defence
It shall not be a defense for a facility operator in an enforcement action that it would have been necessary to halt or reduce activities.

4. Duty to Mitigate
The facility operator shall take all responsible steps to minimize of prevent any discharge in violation of the General Permit.

5. Proper Operation and Maintenance
The facility operator shall properly operate and maintain all facilities and systems which are installed to achieve compliance with the conditions of the permit.

6. Property Rights
The General Permit does not convey any property rights

7. Duty to Provide Information
The facility operator shall furnish the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (State Water Board), U.S. Environmental Protection Agency (U.S. EPA), or local storm water management agency, within a reasonable time specified by the agencies, any requested information to determine compliance with the General Permit. The facility operator shall also furnish, upon request, copies of records required to be kept by the General Permit.

8. Inspection and Entry
The facility operator shall allow the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (State Water Board), U.S. Environmental Protection Agency (U.S. EPA), or local storm water management agency, upon presentation of credentials and other documents as may be required by law to enter the facility, have access to records, inspect the facility, and conduct monitoring activities to ensure compliance with the General Permit.

9. Signatory Requirements
This document must be signed as required by section C.9 of the General Permit.

10. Certification
Documents signed under section 9 above must include a Certification as indicated in section C10 of the General Permit.

11. Reporting Requirements
Facility Operator shall give advance notice to the RWQCB of planned changes, and anticipated non compliance, compliance schedules for reports of compliance or noncompliance, and noncompliance reporting.

12. Oil and Hazardous Substance Liability
Facility Operator is still responsible for conformance with Section 311 of the CWA.

13. Severability
The provisions of the General Permit are severable; and if any provision of the General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of the General Permit shall not be affected thereby.

14. Reopener Clause
The General Permit may be modified, revoked, and reissued, or terminated for cause due to promulgation of amended regulations, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 CFR 122.62, 122.63, 122.64, and 124.5. The General Permit may be reopened to modify the provisions regarding authorized non-storm water discharges specified in Section D. Special Conditions.

15. Penalties for Violations of General Permit Conditions.
a. Section 309 of the CWA provides significant penalties for any person who violates a General Permit condition implementing Sections 301, 302, 306, 307 308, 318, or 405 of the CWA, or any General Permit condition or limitation implementing any such section in a General Permit issued under Section 402. Any person who violates any General Permit condition of the General Permit is subject to a civil penalty not to exceed $25,000 per day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.

b. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties in some cases greater than those under the CWA.

16. Availability
A copy of this General Permit shall be maintained at the facility and be available at all times to the appropriate facility personnel and to Regional Water Board and local agency inspectors.

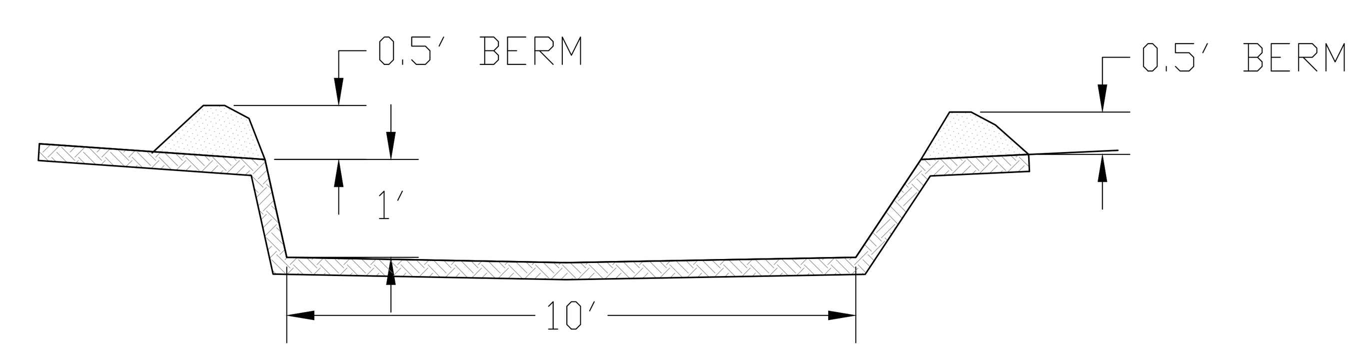
17. Transfers
The General Permit is not transferable from one facility operator to another facility operator nor may it be transferred from one location to another location. A new facility operator of an existing facility must submit an NOI in accordance with the requirements of this General Permit to be authorized to discharge under this General Permit.

18. Continuation of Expired General Permit
The General Permit continues in force and effect until a new general permit is issued or the State Water Board rescinds the General Permit. Facility operators authorized to discharge under the expiring general permit are required to file an NOI to be covered by the reissued General Permit.

19. Penalties for Falsification of Reports
Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under the General Permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years, or by both.

BMPs

SC-10	NON-STORM WATER DISCHARGES (SEE GENERAL NOTES, SHT. 1)
SC-11	SPILL PREVENTION, CONTROL & CLEANUP (SEE GENERAL NOTES, SHT. 1)
SC-21	VEHICLE AND EQUIPMENT CLEANING
SC-22	VEHICLE AND EQUIPMENT REPAIR
SC-30	OUTDOOR LOADING/ UNLOADING
SC-31	OUTDOOR LIQUID CONTAINER STORAGE
SC-34	WASTE HANDLING & DISPOSAL (SEE GENERAL NOTES, SHT. 1)
SC-35	SAFER ALTERNATIVE PRODUCTS
SC-41	BUILDING & GROUNDS MAINTENANCE
SC-43	PARKING/STORAGE AREA MAINTENANCE
SC-44	DRAINAGE SYSTEM MAINTENANCE (SEE GENERAL NOTES, SHT. 1)
TC-30	VEGETATIVE SWALE
TC-32	TREATMENT CONTROL



DETAIL A
PROPOSED PERCULATION POND
N.T.S.

SCALE:
1"=60' (24"X36" PAPER SIZE)

triad/holmes assoc.
civil engineering
land surveying

MAMMOTH LAKES
BISHOP
NAPA
PLEASANTON
REDWOOD CITY
SAN LUIS OBISPO

PREPARED FOR:
CRYSTAL GEYSER
WATER COMPANY

CRYSTAL GEYSER BOTTLING PLANT
STORM WATER POLLUTION PREVENTION PLAN
OLANCHA, CALIFORNIA

DATE 04/14/2016
SCALE AS SHOWN
DRAWN MP
JOB NO. 01.0915
DWG S3
SHEET 3 OF 3

Attachment B

PRDs

Attachment C

BMPs Summary Table

The following guidelines shall be used for maintenance, inspection, and repair of BMPs identified in the SWPPP		
BEST MANAGEMENT PRACTICES (BMPs)	**INSPECTION FREQUENCY**	**MAINTANENCE/REPAIR PROGRAM**
SOURCE CONTROL BMPs		
SC-10 Non-Stormwater Discharges	Regularly	Illegal dumping and illicit connection violations requires technical staff to detect and investigate them.
SC-11 Spill Prevention, Control and Cleanup	Daily	• Place drip pans beneath all potential drips and spill locations during filling and unloading of tanks. • Store and maintain appropriate spill cleanup materials near the tank storage area. • Do not hose down the area to a storm drain. • Check for leaks and spills.
SC-20 Vehicle and Equipment Fueling	Regularly	• Manage materials and waste to reduce impacts on stormwater quality. • Post signs to remind employees and customers not to top off the fuel tank. • Report leaking vehicles to fleet maintenance. • Overflow protection devices on tank systems shall be in place. • Protective guards around tanks and piping to prevent vehicle damage. • Clear tagging or labeling of all valves to reduce human error.
SC-21 Vehicle and Equipment Cleaning (Maintenance Equipment)	Regularly	• Perform berm repair and patching. • Sweep washing areas frequently. • Inspect and maintain on-site treatment units.
SC-22 Vehicle and Equipment Repair	Inspect regularly/ repair immediately	• Provide a designated area for vehicle maintenance. • Keep equipment clean. • Use a tarp or other equipment to capture all spills and drips. • Perform all vehicle fluid removal or changing inside. • Drain oil and other fluids first if the vehicle is to be stored outdoors.
SC-30 Outdoor Loading/Unloading	Regularly	• Conduct inspections and make repairs as necessary. • Check loading and unloading equipment for leaks. • Conduct broom dry-sweeping of area.
SC-31 Outdoor Liquid Container Storage	Weekly	Sweep and clean the storage area if it is paved, do not hose down the area to a storm drain.
SC-32 Outdoor Equipment Operations	Weekly	• Conduct preventive maintenance. • Clean the storm drain system.
SC-34 Waste Handling and Disposal (trash cans)	Regularly	Maintain equipment for material tracking program.
SC-35 Safer Alternative Products	Based on product.	Based on product.
SC-40 Contaminated or Erodible Areas	Weekly	Maintain irrigation of vegetation as necessary.

SC-41 Building and Grounds Maintenance	Inspect irrigation periodically, repair leaks immediately.	Sweep paved areas, wipe up spills with rags and other absorbent material, do not hose down.
SC-42 Building Repair and Construction	To be determined.	To be determined upon construction activity.
SC-43 Parking/Storage Area Maintenance	Regularly	Sweep and clean parking lot and other facilities regularly to prevent accumulated wastes from being discharged into the drainage system during rainy conditions.
SC-44 Drainage System Maintenance	Regularly	• Identify illicit discharges. • Arrange for proper disposal of collected wastes.
TREATMENT CONTROL BMPs		
TC-10 Infiltration Trench	Refer to BMP TC-10	
TC-30 Vegetated Swale	Refer to BMP TC-30	
TC-31 Vegetated Buffer Strip	Refer to BMP TC-31	
TC-32 Bioretention	Refer to BMP TC-32	

Attachment D

Sampling Forms

State of California
State Water Resources Control Board

SAMPLING AND ANALYSIS REDUCTION CERTIFICATION

Submission of this Sampling and Analysis Reduction Certification (SARC) constitutes notification that the operator of the facility identified on this form satisfies the sampling and analysis reduction requirements in Section B.12.b. of the Industrial Activities Storm Water General Permit (General Permit) No. 97-03-DWQ. This SARC and supporting documentation must be submitted to the appropriate Regional Water Board office (see Attachment 4) prior to the wet season (October 1). After submitting this SARC, the facility operator is required to collect and analyze samples from two additional storm events in accordance with the schedule provided in Table C (page 34) of the General Permit. If this SARC is denied by the Regional Water Board, the facility operator must collect and analyze samples from two storm events during each wet season. Please print or type when completing this form and attach any required documents.

I. WDID NO. ____________________

II. FACILITY OPERATOR INFORMATION

Name______________________________ Contact Person ______________________________

Mailing Address______________________________ Title______________________________

City______________________________ State______ Zip__________ Phone______________

III. FACILITY SITE INFORMATION

Facility Name______________________________ Contact Person______________________________

Location______________________________ Title______________________________

City______________________________ **CA** Zip__________ Phone______________

SIC Code(s) 1. ______________ 2.______________ Type of Business______________________________

IV. DOCUMENT CHECKLIST

The following documents must be submitted with this form to be eligible for sampling and analysis reduction. Please check each item to verify that the documents are attached.

☐ 1. Sampling Event Reporting Form (see Attachment 1)

☐ 2. Copy of laboratory analytical results

☐ 3. Storm Water Pollution Prevention Plan and Monitoring Program Checklist (see Attachment 2) and written explanation for any questions answered "NO" or "N/A".

☐ 4. Copy of Facility's Storm Water Pollution Prevention Plan

☐ 5. Copy of Facility's Monitoring Program

☐ 6. Proof of group monitoring participation (only required if you are claiming group monitoring sampling credits)

V. CERTIFICATION

I certify that my facility qualifies for Sampling and Analysis Reduction in accordance with Section B.12.b. of the Industrial Activities Storm Water General Permit 97-03-DWQ. Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

______________________________	______________________________
Signature	Title
______________________________	______________________________
Printed Name	Date

The SARC must be signed by, (a) For a Corporation: a responsible corporate officer (or authorized official), (b) For a Partnership or Sole Proprietorship: a general partner or proprietor, respectively, (c) For a Municipality, State, or other Non-Federal Public Agency: either a principal executive officer or ranking elected official, (d) For a Federal Agency: either the chief or senior executive officer of the agency.

FOR REGIONAL WATER BOARD USE ONLY:

☐ DENIED	☐ APPROVED	
______________________	______________________	___/___/___
Printed Name	Signature	Date
☐ Retained at Regional Board Office	☐ Returned to Applicant	

SAMPLING EVENT REPORTING FORM

Eligibility for sampling and analysis reduction requires that you report the analytical results from the last six (6) sampling events that samples were collected. Section A provides instructions and a recommended table to report these analytical results. If you participated in a group monitoring plan (GMP) and are substituting GMP credits for any of the sampling events, check this box ☐ and complete Section C.

A. Instructions to Report Sampling and Analysis Results

1) Use Table A or an equivalent table to provide your analytical results for <u>each</u> storm water discharge location where sampling was required. Make copies of Table A if your facility has multiple storm water discharge locations.

2) Fill out columns 1-6, including each sampling event date and the analytical results for each parameter. If you analyzed storm water samples for parameters other than those in the table, list each additional parameter, reporting units, and the analytical results. When a parameter is not detected, report as less than the detection limit.

3) Compute the average for each parameter and report the result in the "parameter average" column. The average is the sum of all values for a parameter, divided by the number of samples. If any of your results are reported as less than the detection limit, use one-half of the detection limit for your computation. (Example: If the laboratory reports oil and grease as <5 mg/l, use 2.5 mg/l in your computation of the average.)

TABLE A: SUMMARY OF ANALYTICAL RESULTS

Discharge Location:		Analytical Results						Parameter Average	Benchmark Value
Analytical Parameters	**Sampling Event**	1	2	3	4	5	6		
	Date								
pH (pH units)									6.0-9.0
Total Suspended Solids (mg/l)									100
Specific Conductance (umho/cm)									200
Oil & Grease (mg/l)									15
Total Organic Carbon (mg/l)									110
Other Parameters:									

B. Instructions For Applying Benchmarks to Analytical Results

Parameter Benchmark Values (PBVs) are listed in Table A and Table B (see attachment 3). Analytical results above the PBVs may indicate that the facility's SWPPP is not fully effective in reducing or preventing pollutants in storm water discharges. Your analytical results as well as all other information submitted with this SARC will be reviewed by the Regional Water Board when determining compliance with the SARC eligibility requirements.

PBVs are not numeric effluent limitations and do not supercede effluent limitations guidelines established in Federal Regulations (40 CFR Subchapter N) for storm water discharges from ten (10) categories of facilities listed on Attachment 1, item 1, of the General Permit. If your facility is in one of these categories and any of the analytical results reported in Table A exceed the applicable numeric effluent limitations guidelines, contact your Regional Water Board for additional SARC eligibility guidance.

For each parameter average reported in Table A exceeding the corresponding PBV, attach an explanation that satisfies one of the following conditions:

1. There are no facility pollutant sources related to the parameter, or

2. BMPs that address the facility pollutant sources related to the parameter are being fully implemented and represent compliance with Best Available Technology Economically Achievable and Best Conventional Pollutant Technology requirements of the General Permit.

C. Group Monitoring Plan (GMP) Sampling Credits Instructions

(Complete if you are substituting one (1) or more sampling events with GMP credits)

Section B.15.k of the General Permit allows the substitution of up to four (4) of the six (6) required sampling events with credit earned through participation in approved GMPs. At a minimum you may substitute one (1) GMP credit for each year of GMP participation. You may substitute two (2) GMP credits for each year that the group collected more than 75% of the required samples. Proof of group participants and, if applicable, proof that the group collected more than 75% of the required samples must be attached. You do not earn GMP credits in years where you collected and analyzed samples (those results must be reported in Table A).

In the GMP Credit Worksheet below, indicate the number of GMP credits earned for each year of GMP participation, provide your total GMP credits, and calculate your total sampling event credits.

GMP CREDIT WORKSHEET

Group Monitoring Plan Name ______________________________ Group Leader Name ________________________________

Year of GMP Participation	1992-93	1993-94	1994-95	1995-96	1996-97	**Total GMP Credits**
GMP Credits	☐ 1 ☐ 2	☐ 1 ☐ 2	☐ 1 ☐ 2	☐ 1 ☐ 2	☐ 1 ☐ 2	

☐ # of sampling events reported in Table A (minimum of two (2) must be reported) + ☐ Total GMP credits (from right hand column above)

= ☐ **TOTAL SAMPLING EVENT CREDITS** (must add to six (6) or more to be eligible)

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MONITORING PROGRAM (MP) CHECKLIST

In order to evaluate your SARC request, the following items must be addressed. Include the page number of your SWPPP and MP where such information is located. If the SWPPP and/or MP is incomplete your SARC may not be approved. When an item is not applicable you can write "N/A" in the check box. For items answered "NO" or "N/A", attach an explanation.

A. Storm Water Pollution Prevention Plan

The SWPPP contains:

1. ☐ A current identification of the pollution prevention team or individual(s) responsible for implementation of the SWPPP [See Section A.3.a of the General Permit......Page(s)______
2. ☐ A current reference to existing elements of other applicable regulatory requirements [See Section A.3.b]......Page(s)______
3. ☐ A current site map that addresses all applicable items of Section A.4......Page(s)______
4. ☐ A current list of significant materials [See Section A.5]......Page(s)______
5. ☐ A current description of potential pollutant sources [See Section A.6]......Page(s)______
6. ☐ A current description of spills and leaks in significant quantities since April 17, 1994 [See Section A.6.iv]......Page(s)______
7. ☐ A current description of all non-storm water discharges [See Section A.6.v.]......Page(s)______
8. ☐ A current assessment of potential pollutant sources [See Section A.7]......Page(s)______
9. ☐ A current narrative description of the storm water Best Management Practices (BMP) [See Section A.8.]......Page(s)______
10. ☐ A current table summarizing all potential pollutant sources and corresponding BMPs [See Section A.6.b]......Page(s)______
11. ☐ A current description of the employee training and a schedule for training sessions [See Section A.8.a.v]......Page(s)______
12. ☐ A current description of record keeping and internal reporting procedures [See Section A.8.a.vii.]......Page(s)______
13. ☐ A current schedule to periodically inspect all potential pollutant sources [See Section A.8.a.ix.]......Page(s)______
14. ☐ Current quality assurance procedures [See Section A.8.a.x]......Page(s)______

Can you certify that:	**YES**	**NO**
15. The SWPPP is specific to your facility?	☐	☐
16. All non-storm water discharges are identified? [See Section A.6.v.]	☐	☐
17. All unauthorized non-storm water discharges were eliminated prior to the last two reporting periods? [See Section A.6.v.]	☐	☐
18. Complete Annual Reports were submitted to the Regional Water Quality Control Board for the last two reporting periods? [See Section B.14.]	☐	☐
19. An Annual Site Inspection/Comprehensive Site Compliance Evaluation was performed for each of the last two reporting periods? [See Section A.9]	☐	☐
20. The facility was in compliance with the permit requirements for the last two reporting periods?	☐	☐

B. Monitoring and Reporting Program (MP)

The MP contains:

21 . ☐ A current procedure to visually observe all non-storm water discharges [See Section B.3]................................Page(s)______

22 . ☐ A current procedure to conduct quarterly visual observation for the presence of unauthorized non-storm water discharge [See Section B.3.a. and B.3.b.] ....Page(s)______

23 . ☐ A current procedure for conducting monthly visual observations of all storm water discharges [See Section B.4]..Page(s)______

24 . ☐ A current description of sampling and handling procedures [See Section B.10.]...Page(s)______

Can you certify that:	**YES**	**NO**
25. The MP is specific to your facility?	☐	☐
26. You inspected the facility for non-storm water discharges in the last two reporting periods?	☐	☐
27. Samples were collected from all storm water discharge locations required to be sampled for the last two reporting periods?	☐	☐

TABLE B

U.S. EPA Multi-Sector Permit

Parameter Benchmark Values[1][2]

Parameter Name	Benchmark Value
Biochemical Oxygen Demand(5)	30 mg/L
Chemical Oxygen Demand	120 mg/L
Total Suspended Solids	100 mg/L
Oil and Grease	15 mg/L
Nitrate + Nitrite Nitrogen	0.68 mg/L
Total Phosphorus	2.0 mg/L
pH	6.0-9.0 s.u.
Acrylonitrile (c)	7.55 mg/L
Aluminum, Total (pH 6.5-9)	0.75 mg/L
Ammonia	19 mg/L
Antimony, Total	0.636 mg/L
Arsenic, Total (c)	0.16854 mg/L
Benzene	0.01 mg/L
Beryllium, Total (c)	0.13 mg/L
Butylbenzyl Phthalate	3 mg/L
Cadium, Total (H)	0.0159 mg/L
Chloride	860 mg/L
Copper, Total (H)	0.0636 mg/L
Dimethyl Phthalate	1.0 mg/L
Ethylbenzene	3.1 mg/L
Fluoranthene	0.042 mg/L
Fluoride	1.8 mg/L
Iron, Total	1.0 mg/L
Lead, Total (H)	0.0816 mg/L
Manganese	1.0 mg/L
Mercury, Total	0.0024 mg/L
Nickel, Total (H)	1.417 mg/L
PCB-1016 (c)	0.000127 mg/L
PCB-1221 (c)	0.10 mg/L
PCB-1232 (c)	0.000318 mg/L
PCB-1242 (c)	0.00020 mg/L
PCB-1248 (c)	0.002544 mg/L
PCB-1254 (c)	0.10 mg/L
PCB-1260 (c)	0.000477 mg/L
Phenols, Total	1.0 mg/L
Pyrene (PAH,c)	0.01 mg/L
Selenium, Total (*)	0.2385 mg/L
Silver, Total (H)	0.0318 mg/L
Toluene	10.0 mg/L
Trichloroethylene (c)	0.0027 mg/L
Zinc, Total (H)	0.117 mg/L

[1] If storm water samples have been analyzed for parameters without Parameter Benchmark Values, contact your Regional Water Board.
[2] Regional Water Boards may adopt Parameter Benchmark Values that are different than those listed in this Table.

STATE AND REGIONAL BOARD CONTACT LIST

AVAILABLE AT:
http://www.swrcb.ca.gov/html/stormwtr.html
under Contacts.

Attachment E
SRWQCB General Permit No. CAS000001 and Water Quality Order No. 2014-0057-DWQ

http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/induspmt.pdf

X. Storm Water Pollution Prevention Plan (SWPPP)

A. SWPPP Elements

Dischargers shall develop and implement a site-specific SWPPP for each industrial facility covered by this General Permit that shall contain the following elements, as described further in this Section[10]:

1. Facility Name and Contact Information;
2. Site Map;
3. List of Industrial Materials;
4. Description of Potential Pollution Sources;
5. Assessment of Potential Pollutant Sources;
6. Minimum BMPs;
7. Advanced BMPs, if applicable;
8. Monitoring Implementation Plan;
9. Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation); and,
10. Date that SWPPP was Initially Prepared and the Date of Each SWPPP Amendment, if Applicable.

B. SWPPP Implementation and Revisions

All Dischargers are required to implement their SWPPP by July 1, 2015 or upon commencement of industrial activity. The Discharger shall:

1. Revise their on-site SWPPP whenever necessary;
2. Certify and submit via SMARTS their SWPPP within 30 days whenever the SWPPP contains significant revision(s); and,
3. With the exception of significant revisions, the Discharger is not required to certify and submit via SMARTS their SWPPP revisions more than once every three (3) months in the reporting year.

[10] Appendix 1 (SWPPP Checklist) of this General Permit is provided to assist the Discharger in including information required in the SWPPP. This checklist is not required to be used.

C. SWPPP Performance Standards

1. The Discharger shall ensure a SWPPP is prepared to:

    a. Identify and evaluate all sources of pollutants that may affect the quality of industrial storm water discharges and authorized NSWDs;

    b. Identify and describe the minimum BMPs (Section X.H.1) and any advanced BMPs (Section X.H.2) implemented to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs. BMPs shall be selected to achieve compliance with this General Permit; and,

    c. Identify and describe conditions or circumstances which may require future revisions to be made to the SWPPP.

2. The Discharger shall prepare a SWPPP in accordance with all applicable SWPPP requirements of this Section. A copy of the SWPPP shall be maintained at the facility.

D. Planning and Organization

1. Pollution Prevention Team

    Each facility must have a Pollution Prevention Team established and responsible for assisting with the implementation of the requirements in this General Permit. The Discharger shall include in the SWPPP detailed information about its Pollution Prevention Team including:

    a. The positions within the facility organization (collectively, team members) who assist in implementing the SWPPP and conducting all monitoring requirements in this General Permit;

    b. The responsibilities, duties, and activities of each of the team members; and,

    c. The procedures to identify alternate team members to implement the SWPPP and conduct required monitoring when the regularly assigned team members are temporarily unavailable (due to vacation, illness, out of town business, or other absences).

2. Other Requirements and Existing Facility Plans

    a. The Discharger shall ensure its SWPPP is developed, implemented, and revised as necessary to be consistent with any applicable municipal, state, and federal requirements that pertain to the requirements in this General Permit.

    b. The Discharger may include in their SWPPP the specific elements of existing plans, procedures, or regulatory compliance documents that contain storm water-related BMPs or otherwise relate to the requirements of this General Permit.

c. The Discharger shall properly reference the original sources for any elements of existing plans, procedures, or regulatory compliance documents included as part of their SWPPP and shall maintain a copy of the documents at the facility as part of the SWPPP.

d. The Discharger shall document in their SWPPP the facility's scheduled operating hours as defined in Attachment C. Scheduled facility operating hours that would be considered irregular (temporary, intermittent, seasonal, weather dependent, etc.) shall also be documented in the SWPPP.

E. Site Map

1. The Discharger shall prepare a site map that includes notes, legends, a north arrow, and other data as appropriate to ensure the map is clear, legible and understandable.

2. The Discharger may provide the required information on multiple site maps.

3. The Discharger shall include the following information on the site map:

   a. The facility boundary, storm water drainage areas within the facility boundary, and portions of any drainage area impacted by discharges from surrounding areas. Include the flow direction of each drainage area, on-facility surface water bodies, areas of soil erosion, and location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.) or municipal storm drain inlets that may receive the facility's industrial storm water discharges and authorized NSWDs;

   b. Locations of storm water collection and conveyance systems, associated discharge locations, and direction of flow. Include any sample locations if different than the identified discharge locations;

   c. Locations and descriptions of structural control measures[11] that affect industrial storm water discharges, authorized NSWDs, and/or run-on;

   d. Identification of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures;

[11] Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

e. Locations where materials are directly exposed to precipitation and the locations where identified significant spills or leaks (Section X.G.1.d) have occurred; and

f. Areas of industrial activity subject to this General Permit. Identify all industrial storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and material reuse areas, and other areas of industrial activity that may have potential pollutant sources.

F. List of Industrial Materials

The Discharger shall ensure the SWPPP includes a list of industrial materials handled at the facility, and the locations where each material is stored, received, shipped, and handled, as well as the typical quantities and handling frequency.

G. Potential Pollutant Sources

1. Description of Potential Pollutant Sources

a. Industrial Processes

The Discharger shall ensure the SWPPP describes each industrial process including: manufacturing, cleaning, maintenance, recycling, disposal, and any other activities related to the process. The type, characteristics, and approximate quantity of industrial materials used in or resulting from the process shall be included. Areas protected by containment structures and the corresponding containment capacity shall be identified and described.

b. Material Handling and Storage Areas

The Discharger shall ensure the SWPPP describes each material handling and storage area, including: the type, characteristics, and quantity of industrial materials handled or stored; the shipping, receiving, and loading procedures; the spill or leak prevention and response procedures; and the areas protected by containment structures and the corresponding containment capacity.

c. Dust and Particulate Generating Activities

The Discharger shall ensure the SWPPP describes all industrial activities that generate a significant amount of dust or particulate that may be deposited within the facility boundaries. The SWPPP shall describe such industrial activities, including the discharge locations, the source type, and the characteristics of the dust or particulate pollutant.

d. Significant Spills and Leaks

The Discharger shall:

i. Evaluate the facility for areas where spills and leaks can likely occur;

ii. Ensure the SWPPP includes:

a) A list of any industrial materials that have spilled or leaked in significant quantities and have discharged from the facility's storm water conveyance system within the previous five-year period;

b) A list of any toxic chemicals identified in 40 Code of Federal Regulations section 302 that have been discharged from the facilities' storm water conveyance system as reported on U.S. EPA Form R, as well as oil and hazardous substances in excess of reportable quantities (40 C.F.R. §§ 110, 117, and 302) that have discharged from the facility's storm water conveyance system within the previous five-year period;

c) A list of any industrial materials that have spilled or leaked in significant quantities and had the potential to be discharged from the facility's storm water conveyance system within the previous five-year period; and,

iii. Ensure that for each discharge or potential discharge listed above the SWPPP includes the location, characteristics, and approximate quantity of the materials spilled or leaked; approximate quantity of the materials discharged from the facility's storm water conveyance system; the cleanup or remedial actions that have occurred or are planned; the approximate remaining quantity of materials that have the potential to be discharged; and the preventive measures taken to ensure spills or leaks of the material do not reoccur.

e. NSWDs

The Discharger shall:

i. Ensure the SWPPP includes an evaluation of the facility that identifies all NSWDs, sources, and drainage areas;

ii. Ensure the SWPPP includes an evaluation of all drains (inlets and outlets) that identifies connections to the storm water conveyance system;

iii. Ensure the SWPPP includes a description of how all unauthorized NSWDs have been eliminated; and,

iv. Ensure all NSWDs are described in the SWPPP. This description shall include the source, quantity, frequency, and characteristics of the NSWDs, associated drainage area, and whether it is an authorized or unauthorized NSWD in accordance with Section IV.

f. Erodible Surfaces

The Discharger shall ensure the SWPPP includes a description of the facility locations where soil erosion may be caused by industrial activity, contact with storm water, authorized and unauthorized NSWDs, or run-on from areas surrounding the facility.

2. Assessment of Potential Pollutant Sources

a. The Discharger shall ensure that the SWPPP includes a narrative assessment of all areas of industrial activity with potential industrial pollutant sources. At a minimum, the assessment shall include:

i. The areas of the facility with likely sources of pollutants in industrial storm water discharges and authorized NSWDs;

ii. The pollutants likely to be present in industrial storm water discharges and authorized NSWDs;

iii. The approximate quantity, physical characteristics (e.g., liquid, powder, solid, etc.), and locations of each industrial material handled, produced, stored, recycled, or disposed;

iv. The degree to which the pollutants associated with those materials may be exposed to, and mobilized by contact with, storm water;

v. The direct and indirect pathways by which pollutants may be exposed to storm water or authorized NSWDs;

vi. All sampling, visual observation, and inspection records;

vii. The effectiveness of existing BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs;

viii. The estimated effectiveness of implementing, to the extent feasible, minimum BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs; and,

ix. The identification of the industrial pollutants related to the receiving waters with 303(d) listed impairments identified in Appendix 3 or approved TMDLs that may be causing or contributing to an exceedance of a water quality standard in the receiving waters.

b. Based upon the assessment above, Dischargers shall identify in the SWPPP any areas of the facility where the minimum BMPs described in subsection H.1 below will not adequately reduce or prevent pollutants in storm water discharges in compliance with Section V.A. Dischargers shall identify any advanced BMPs, as described in subsection H.2 below, for those areas.

c. Based upon the assessment above, Dischargers shall identify any drainage areas with no exposure to industrial activities and materials in accordance with the definitions in Section XVII.

d. Based upon the assessment above, Dischargers shall identify any additional parameters, beyond the required parameters in Section XI.B.6 that indicate the presence of pollutants in industrial storm water discharges.

H. Best Management Practices (BMPs)

1. Minimum BMPs

The Discharger shall, to the extent feasible, implement and maintain all of the following minimum BMPs to reduce or prevent pollutants in industrial storm water discharges.[12]

a. Good Housekeeping

The Discharger shall:

i. Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly;

ii. Minimize or prevent material tracking;

iii. Minimize dust generated from industrial materials or activities;

iv. Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible;

v. Cover all stored industrial materials that can be readily mobilized by contact with storm water;

[12] For the purposes of this General Permit, the requirement to implement BMPs "to the extent feasible" requires Dischargers to select, design, install and implement BMPs that reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

vi. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water;

vii. Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system;

viii. Minimize storm water discharges from non-industrial areas (e.g., storm water flows from employee parking area) that contact industrial areas of the facility; and,

ix. Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility.

b. Preventive Maintenance

The Discharger shall:

i. Identify all equipment and systems used outdoors that may spill or leak pollutants;

ii. Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks;

iii. Establish an appropriate schedule for maintenance of identified equipment and systems; and,

iv. Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.

c. Spill and Leak Prevention and Response

The Discharger shall:

i. Establish procedures and/or controls to minimize spills and leaks;

ii. Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials shall be cleaned promptly and disposed of properly;

iii. Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and,

iv. Identify and train appropriate spill and leak response personnel.

d. Material Handling and Waste Management

The Discharger shall:

i. Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event;

ii. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water;

iii. Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;

iv. Divert run-on and storm water generated from within the facility away from all stockpiled materials;

v. Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures (Section X.H.1.c); and,

vi. Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.

e. Erosion and Sediment Controls

For each erodible surface facility location identified in the SWPPP (Section X.G.1.f), the Discharger shall:

i. Implement effective wind erosion controls;

ii. Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event;

iii. Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site;

iv. Divert run-on and storm water generated from within the facility away from all erodible materials; and,

v. If sediment basins are implemented, ensure compliance with the design storm standards in Section X.H.6.

f. Employee Training Program

The Discharger shall:

i. Ensure that all team members implementing the various compliance activities of this General Permit are properly trained to implement the requirements of this General Permit, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP;

ii. Prepare or acquire appropriate training manuals or training materials;

iii. Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive;

iv. Provide a training schedule; and,

v. Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.

g. Quality Assurance and Record Keeping

The Discharger shall:

i. Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan;

ii. Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP; and

iii. Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years (Section XXI.J.4).

2. Advanced BMPs

a. In addition to the minimum BMPs described in Section X.H.1, the Discharger shall, to the extent feasible, implement and maintain any advanced BMPs identified in Section X.G.2.b, necessary to reduce or prevent discharges of pollutants in its storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

b. Advanced BMPs may include one or more of the following BMPs:

i. Exposure Minimization BMPs

These include storm resistant shelters (either permanent or temporary) that prevent the contact of storm water with the identified industrial materials or area(s) of industrial activity.

ii. Storm Water Containment and Discharge Reduction BMPs

These include BMPs that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. Dischargers are encouraged to utilize BMPs that infiltrate or reuse storm water where feasible.

iii. Treatment Control BMPs

This is the implementation of one or more mechanical, chemical, biologic, or any other treatment technology that will meet the treatment design standard.

iv. Other Advanced BMPs

Any additional BMPs not described in subsections b.i through iii above that are necessary to meet the effluent limitations of this General Permit.

3. Temporary Suspension of Industrial Activities

For facilities that plan to temporarily suspend industrial activities for ten (10) or more consecutive calendar days during a reporting year, the Discharger may also suspend monitoring if it is infeasible to conduct monitoring while industrial activities are suspended (e.g., the facility is not staffed, or the facility is remote or inaccessible) and the facility has been stabilized. The Discharger shall include in the SWPPP the BMPs necessary to achieve compliance with this General Permit during the temporary suspension of the industrial activity. Once all necessary BMPs have been implemented to stabilize the facility, the Discharger is not required to:

a. Perform monthly visual observations (Section XI.A.1.a.); or,

b. Perform sampling and analysis (Section XI.B.) if it is infeasible to do so (e.g. facility is remotely located).

The Discharger shall upload via SMARTS (7) seven calendar days prior to the planned temporary suspension of industrial activities:

a. SWPPP revisions specifically addressing the facility stabilization BMPs;

b. The justification for why monitoring is infeasible at the facility during the period of temporary suspension of industrial activities;

c. The date the facility is fully stabilized for temporary suspension of industrial activities; and,

d. The projected date that industrial activities will resume at the facility.

Upon resumption of industrial activities at the facility, the Discharger shall, via SMARTS, confirm and/or update the date the facility's industrial activities have resumed. At this time, the Discharger is required to resume all compliance activities under this General Permit.

The Regional Water Boards may review the submitted information pertaining to the temporary suspension of industrial activities. Upon review, the Regional Water Board may request revisions or reject the Discharger's request to temporarily suspend monitoring.

4. BMP Descriptions

   a. The Discharger shall ensure that the SWPPP identifies each BMP being implemented at the facility, including:

      i. The pollutant(s) that the BMP is designed to reduce or prevent in industrial storm water discharges;

      ii. The frequency, time(s) of day, or conditions when the BMP is scheduled for implementation;

      iii. The locations within each area of industrial activity or industrial pollutant source where the BMP shall be implemented;

      iv. The individual and/or position responsible for implementing the BMP;

      v. The procedures, including maintenance procedures, and/or instructions to implement the BMP effectively;

      vi. The equipment and tools necessary to implement the BMP effectively; and,

      vii. The BMPs that may require more frequent visual observations beyond the monthly visual observations as described in Section XI.A.1.

   b. The Discharger shall ensure that the SWPPP identifies and justifies each minimum BMP or applicable advanced BMP not being implemented at the facility because they do not reflect best industry practice considering technological availability and economic practicability and achievability.

   c. The Discharger shall identify any BMPs described in subsection a above that are implemented in lieu of any of the minimum or applicable advanced BMPs.

5. BMP Summary Table

   The Discharger shall prepare a table summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.

6. Design Storm Standards for Treatment Control BMPs

All new treatment control BMPs employed by the Discharger to comply with Section X.H.2 Advanced BMPs and new sediment basins installed after the effective date of this order shall be designed to comply with design storm standards in this Section, except as provided in an Industrial Activity BMP Demonstration (Section XII.D.2.a). A Factor of Safety shall be incorporated into the design of all treatment control BMPs to ensure that storm water is sufficiently treated throughout the life of the treatment control BMPs. The design storm standards for treatment control BMPs are as follows:

a. Volume-based BMPs: The Discharger, at a minimum, shall calculate[13] the volume to be treated using one of the following methods:

i. The volume of runoff produced from an 85th percentile 24-hour storm event, as determined from local, historical rainfall records;

ii. The volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice;[14] or,

iii. The volume of annual runoff required to achieve 80% or more treatment, determined in accordance with the methodology set forth in the latest edition of California Stormwater Best Management Practices Handbook[15], using local, historical rainfall records.

b. Flow-based BMPs: The Discharger shall calculate the flow needed to be treated using one of the following methods:

i. The maximum flow rate of runoff produced from a rainfall intensity of at least 0.2 inches per hour for each hour of a storm event;

ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or,

iii. The maximum flow rate of runoff, as determined using local historical rainfall records, that achieves approximately the same reduction in total pollutant loads as would be achieved by treatment of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

[13] All hydrologic calculations shall be certified by a California licensed professional engineer in accordance with the Professional Engineers Act (Bus. & Prof. Code § 6700, et seq).

[14] Water Environment Federation (WEF). Manual of Practice No. 23/ ASCE Manual of Practice No. 87, cited in chapter 5 (1998 Edition) and Cited in Chapter 3 (2012 Edition) .

[15] California Stormwater Quality Association. Stormwater Best Management Practice New Development and Redevelopment Handbook. < http://www.casqa.org/ >. [as of July 3, 2013].

I. MONITORING IMPLEMENTATION PLAN

The Discharger shall prepare a Monitoring Implementation Plan in accordance with the requirements of this General Permit. The Monitoring Implementation Plan shall be included in the SWPPP and shall include the following items:

1. An identification of team members assigned to conduct the monitoring requirements;
2. A description of the following in accordance with Attachment H:
   a. Discharge locations;
   b. Visual observation procedures; and,
   c. Visual observation response procedures related to monthly visual observations and sampling event visual observations.
3. Justifications for any of the following that are applicable to the facility:
   a. Alternative discharge locations in accordance with Section XI.C.3;
   b. Representative Sampling Reduction in accordance with Section XI.C.4; or,
   c. Qualified Combined Samples in accordance with Section XI.C.5.
4. Procedures for field instrument calibration instructions, including calibration intervals specified by the manufacturer; and,
5. An example Chain of Custody form used when handling and shipping water quality samples to the lab.

XI. MONITORING

A. Visual Observations

1. Monthly Visual Observations
   a. At least once per calendar month, the Discharger shall visually observe each drainage area for the following:
      i. The presence or indications of prior, current, or potential unauthorized NSWDs and their sources;
      ii. Authorized NSWDs, sources, and associated BMPs to ensure compliance with Section IV.B.3; and,

iii. Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants.

b. The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation.

c. The Discharger shall provide an explanation in the Annual Report for uncompleted monthly visual observations.

2. Sampling Event Visual Observations

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Discharger shall observe the discharge of storm water associated with industrial activity.

a. The Discharger shall ensure that visual observations of storm water discharged from containment sources (e.g. secondary containment or storage ponds) are conducted at the time that the discharge is sampled.

b. Any Discharger employing volume-based or flow-based treatment BMPs shall sample any bypass that occurs while the visual observations and sampling of storm water discharges are conducted.

c. The Discharger shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.

d. In the event that a discharge location is not visually observed during the sampling event, the Discharger shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location.

e. The Discharger shall provide an explanation in the Annual Report for uncompleted sampling event visual observations.

3. Visual Observation Records

The Discharger shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

4. The Discharger shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.

B. Sampling and Analysis

1. A Qualifying Storm Event (QSE) is a precipitation event that:

   a. Produces a discharge for at least one drainage area; and,

   b. Is preceded by 48 hours with no discharge from any drainage area.

2. The Discharger shall collect and analyze storm water samples from two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30).

3. Compliance Group Participants are only required to collect and analyze storm water samples from one (1) QSE within the first half of each reporting year (July 1 to December 31) and one (1) QSE within the second half of the reporting year (January 1 to June 30).

4. Except as provided in Section XI.C.4 (Representative Sampling Reduction), samples shall be collected from each drainage area at all discharge locations. The samples must be:

   a. Representative of storm water associated with industrial activities and any commingled authorized NSWDs; or,

   b. Associated with the discharge of contained storm water.

5. Samples from each discharge location shall be collected within four (4) hours of:

   a. The start of the discharge; or,

   b. The start of facility operations if the QSE occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night for facilities with day-time operating hours). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe in accordance with Section XI.C.6.a.ii.

6. The Discharger shall analyze all collected samples for the following parameters:

   a. Total suspended solids (TSS) and oil and grease (O&G);

   b. pH (see Section XI.C.2);

c. Additional parameters identified by the Discharger on a facility-specific basis that serve as indicators of the presence of all industrial pollutants identified in the pollutant source assessment (Section X.G.2). These additional parameters may be modified (added or removed) in accordance with any updated SWPPP pollutant source assessment;

d. Additional applicable parameters listed in Table 1 below. These parameters are dependent on the facility Standard Industrial Classification (SIC) code(s);

e. Additional applicable industrial parameters related to receiving waters with 303(d) listed impairments or approved TMDLs based on the assessment in Section X.G.2.a.ix. Test methods with lower detection limits may be necessary when discharging to receiving waters with 303(d) listed impairments or TMDLs;

f. Additional parameters required by the Regional Water Board. The Discharger shall contact its Regional Water Board to determine appropriate analytical test methods for parameters not listed in Table 2 below. These analytical test methods will be added to SMARTS; and

g. For discharges subject to Subchapter N, additional parameters specifically required by Subchapter N. If the discharge is subject to ELGs, the Dischargers shall contact the Regional Water Board to determine appropriate analytical methods for parameters not listed in Table 2 below.

7. The Discharger shall select corresponding NALs, analytical test methods,, and reporting units from the list provided in Table 2 below. SMARTS will be updated over time to add additional acceptable analytical test methods. Dischargers may propose an analytical test method for any parameter or pollutant that does not have an analytical test method specified in Table 2 or in SMARTS. Dischargers may also propose analytical test methods with substantially similar or more stringent method detection limits than existing approved analytical test methods. Upon approval, the analytical test method will be added to SMARTS.

8. The Discharger shall ensure that the collection, preservation and handling of all storm water samples are in accordance with Attachment H, Storm Water Sample Collection and Handling Instructions.

9. Samples from different discharge locations shall not be combined or composited except as allowed in Section XI.C.5 (Qualified Combined Samples).

10. The Discharger shall ensure that all laboratory analyses are conducted according to test procedures under 40 Code of Federal Regulations part 136, including the observation of holding times, unless other test procedures have been specified in this General Permit or by the Regional Water Board.

11. Sampling Analysis Reporting

a. The Discharger shall submit all sampling and analytical results for all individual or Qualified Combined Samples via SMARTS within 30 days of obtaining all results for each sampling event.

b. The Discharger shall provide the method detection limit when an analytical result from samples taken is reported by the laboratory as a "non-detect" or less than the method detection limit. A value of zero shall not be reported.

c. The Discharger shall provide the analytical result from samples taken that is reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit.

Reported analytical results will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero (0) for all results less than the minimum level as reported by the laboratory.

TABLE 1: Additional Analytical Parameters

SIC code	SIC code Description	Parameters*
102X	Copper Ores	COD; N+N
12XX	Coal Mines	Al; Fe
144X	Sand and Gravel	N+N
207X	Fats and Oils	BOD; COD; N+N
2421	Sawmills & Planning Mills	COD; Zn
2426	Hardwood Dimension	COD
2429	Special Product Sawmills	COD
243X	Millwork, Veneer, Plywood	COD
244X	Wood Containers	COD
245X	Wood Buildings & Mobile Homes	COD
2491	Wood Preserving	As; Cu
2493	Reconstituted Wood Products	COD
263X	Paperboard Mills	COD
281X	Industrial Inorganic Chemicals	Al; Fe; N+N
282X	Plastic Materials, Synthetics	Zn
284X	Soaps, Detergents, Cosmetics	N+N; Zn
287X	Fertilizers, Pesticides, etc.	Fe; N+N; Pb; Zn; P
301X	Tires, Inner Tubes	Zn
302X	Rubber and Plastic Footwear	Zn
305X	Rubber & Plastic Sealers & Hoses	Zn
306X	Misc. Fabricated Rubber Products	Zn
325X	Structural Clay Products	Al
326X	Pottery & Related Products	Al
3297	Non-Clay Refractories	Al
327X	Concrete, Gypsum, Plaster Products (Except 3274)	Fe
3295	Minerals & Earths	Fe
331X	Steel Works, Blast Furnaces, Rolling and Finishing Mills	Al; Zn
332X	Iron and Steel Foundries	Al; Cu; Fe; Zn
335X	Metal Rolling, Drawing, Extruding	Cu; Zn

336X	Nonferrous Foundries (Castings)	Cu; Zn
34XX	Fabricated Metal Products (Except 3479)	Zn; N+N; Fe; Al
3479	Coating and Engraving	Zn; N+N
4953	Hazardous Waste Facilities	NH3; Mg; COD; As; Cn; Pb; HG; Se; Ag
44XX	Water Transportation	Al; Fe; Pb; Zn
45XX	Air Transportation Facilities[16]	BOD; COD; NH3
4911	Steam Electric Power Generating Facilities	Fe
4953	Landfills and Land Application Facilities	Fe
5015	Dismantling or Wrecking Yards	Fe; Pb; Al
5093	Scrap and Waste Materials (not including source-separated recycling)	Fe; Pb; Al; Zn; COD

***Table 1 Parameter Reference**	
Ag – Silver	**Mg** – Magnesium
Al – Aluminum	**N+N** - Nitrate & Nitrite Nitrogen
As – Arsenic	**NH** – Ammonia
BOD – Biochemical Oxygen Demand	**Ni** – Nickel
Cd - Cadmium	**P** – Phosphorus
Cn – Cyanide	**Se** – Selenium
COD – Chemical Oxygen Demand	**TSS** – Total Suspended Solids
Cu – Copper	**Zn** – Zinc
Fe – Iron	**Pb** – Lead
Hg – Mercury	

[16] Only airports (SIC 4512-4581) where a single Discharger, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, are required to monitor these parameters for those outfalls that collect runoff from areas where deicing activities occur.

TABLE 2: Parameter NAL Values, Test Methods, and Reporting Units

PARAMETER	TEST METHOD	REPORTING UNITS	ANNUAL NAL	INSTANTANEOUS MAXIMUM NAL
pH*	See Section XI.C.2	pH units	N/A	Less than 6.0 Greater than 9.0
Suspended Solids (TSS)*, Total	SM 2540-D	mg/L	100	400
Oil & Grease (O&G)*, Total	EPA 1664A	mg/L	15	25
Zinc, Total (H)	EPA 200.8	mg/L	0.26**	
Copper, Total (H)	EPA 200.8	mg/L	0.0332**	
Cyanide, Total	SM 4500–CN C, D, or E	mg/L	0.022	
Lead, Total (H)	EPA 200.8	mg/L	0.262**	
Chemical Oxygen Demand (COD)	SM 5220C	mg/L	120	
Aluminum, Total	EPA 200.8	mg/L	0.75	
Iron, Total	EPA 200.7	mg/L	1.0	
Nitrate + Nitrite Nitrogen	SM 4500-NO3- E	mg/L as N	0.68	
Total Phosphorus	SM 4500-P B+E	mg/L as P	2.0	
Ammonia (as N)	SM 4500-NH3 B+ C or E	mg/L	2.14	
Magnesium, total	EPA 200.7	mg/L	0.064	
Arsenic, Total (c)	EPA 200.8	mg/L	0.15	
Cadmium, Total (H)	EPA 200.8	mg/L	0.0053**	
Nickel, Total (H)	EPA 200.8	mg/l	1.02**	
Mercury, Total	EPA 245.1	mg/L	0.0014	
Selenium, Total	EPA 200.8	mg/L	0.005	
Silver, Total (H)	EPA 200.8	mg/L	0.0183**	
Biochemical Oxygen Demand (BOD)	SM 5210B	mg/L	30	

SM – Standard Methods for the Examination of Water and Wastewater, 18th edition
EPA – U.S. EPA test methods
(H) – Hardness dependent
* Minimum parameters required by this General Permit
**The NAL is the highest value used by U.S. EPA based on their hardness table in the 2008 MSGP.

C. Methods and Exceptions

1. The Discharger shall comply with the monitoring methods in this General Permit and Attachment H.

2. pH Methods

   a. Dischargers that are not subject to Subchapter N ELGs mandating pH analysis related to acidic or alkaline sources and have never entered Level 1 status for pH, are eligible to screen for pH using wide range litmus pH paper or other equivalent pH test kits. The pH screen shall be performed as soon as practicable, but no later than 15 minutes after the sample is collected.

   b. Dischargers subject to Subchapter N ELGs shall either analyze samples for pH using methods in accordance with 40 Code of Federal Regulations 136 for testing storm water or use a calibrated portable instrument for pH.

   c. Dischargers that enter Level 1 status (see Section XII.C) for pH shall, in the subsequent reporting years, analyze for pH using methods in accordance with 40 Code of Federal Regulations 136 or use a calibrated portable instrument for pH.

   d. Dischargers using a calibrated portable instrument for pH shall ensure that all field measurements are conducted in accordance with the accompanying manufacturer's instructions.

3. Alternative Discharge Locations

   a. The Discharger is required to identify, when practicable, alternative discharge locations for any discharge locations identified in accordance with Section XI.B.4 if the facility's discharge locations are:

      i. Affected by storm water run-on from surrounding areas that cannot be controlled; and/or,

      ii. Difficult to observe or sample (e.g. submerged discharge outlets, dangerous discharge location accessibility).

   b. The Discharger shall submit and certify via SMARTS any alternative discharge location or revisions to the alternative discharge locations in the Monitoring Implementation Plan.

4. Representative Sampling Reduction

   a. The Discharger may reduce the number of locations to be sampled in each drainage area (e.g., roofs with multiple downspouts, loading/unloading areas with multiple storm drains) if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) of the drainage area for each location to be sampled are substantially similar to one another. To qualify for the Representative Sampling Reduction, the Discharger shall provide a Representative Sampling Reduction justification in the Monitoring Implementation Plan section of the SWPPP.

b. The Representative Sampling Reduction justification shall include:

   i. Identification and description of each drainage area and corresponding discharge location(s);

   ii. A description of the industrial activities that occur throughout the drainage area;

   iii. A description of the BMPs implemented in the drainage area;

   iv. A description of the physical characteristics of the drainage area;

   v. A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar; and,

   vi. An identification of the discharge location(s) selected for representative sampling, and rationale demonstrating that the selected location(s) to be sampled are representative of the discharge from the entire drainage area.

c. A Discharger that satisfies the conditions of subsection 4.b.i through v above shall submit and certify via SMARTS the revisions to the Monitoring Implementation Plan that includes the Representative Sampling Reduction justification.

d. Upon submittal of the Representative Sampling Reduction justification, the Discharger may reduce the number of locations to be sampled in accordance with the Representative Sampling Reduction justification. The Regional Water Board may reject the Representative Sampling Reduction justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Representative Sampling Reduction until the Regional Water Board approves the Representative Sampling Reduction justification.

5. Qualified Combined Samples

   a. The Discharger may authorize an analytical laboratory to combine samples of equal volume from as many as four (4) discharge locations if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) within each of the drainage areas are substantially similar to one another.

b. The Qualified Combined Samples justification shall include:

i. Identification and description of each drainage area and corresponding discharge locations;

ii. A description of the BMPs implemented in the drainage area;

iii. A description of the industrial activities that occur throughout the drainage area;

iv. A description of the physical characteristics of the drainage area; and,

v. A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar.

c. A Discharger that satisfies the conditions of subsection 5.b.i through iv above shall submit and certify via SMARTS the revisions to the Monitoring Implementation Plan that includes the Qualified Combined Samples justification.

d. Upon submittal of the Qualified Combined Samples justification revisions in the Monitoring Implementation Plan, the Discharger may authorize the lab to combine samples of equal volume from as many as four (4) drainage areas. The Regional Water Board may reject the Qualified Combined Samples justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Qualified Combined Samples justification until the Regional Water Board approves the Qualified Combined Samples justification.

e. Regional Water Board approval is necessary to combine samples from more than four (4) discharge locations.

6. Sample Collection and Visual Observation Exceptions

a. Sample collection and visual observations are not required under the following conditions:

i. During dangerous weather conditions such as flooding or electrical storms; or,

ii. Outside of scheduled facility operating hours. The Discharger is not precluded from collecting samples or conducting visual observations outside of scheduled facility operating hours.

b. In the event that samples are not collected, or visual observations are not conducted in accordance with Section XI.B.5 due to these exceptions, an explanation shall be included in the Annual Report.

c. Sample collection is not required for drainage areas with no exposure to industrial activities and materials in accordance with the definitions in Section XVII.

7. Sampling Frequency Reduction Certification
   a. Dischargers are eligible to reduce the number of QSEs sampled each reporting year in accordance with the following requirements:

      i. Results from four (4) consecutive QSEs that were sampled (QSEs may be from different reporting years) did not exceed any NALs as defined in Section XII.A; and

      ii. The Discharger is in full compliance with the requirements of this General Permit and has updated, certified and submitted via SMARTS all documents, data, and reports required by this General Permit during the time period in which samples were collected.

   b. The Regional Water Board may notify a Discharger that it may not reduce the number of QSEs sampled each reporting year if the Discharger is subject to an enforcement action.

   c. An eligible Discharger shall certify via SMARTS that it meets the conditions in subsection 7.a above.

   d. Upon Sampling Frequency Reduction certification, the Discharger shall collect and analyze samples from one (1) QSE within the first half of each reporting year (July 1 to December 31), and one (1) QSE within the second half of each reporting year (January 1 to June 30). All other monitoring, sampling, and reporting requirements remain in effect.

   e. Dischargers who participate in a Compliance Group and certify a Sampling Frequency Reduction are only required to collect and analyze storm water samples from one (1) QSE within each reporting year.

   f. A Discharger may reduce sampling per the Sampling Frequency Reduction certification unless notified by the Regional Water Board that: (1) the Sampling Frequency Reduction certification has been rejected or (2) additional supporting documentation must be submitted. In such instances, a Discharger is ineligible for the Sampling Frequency Reduction until the Regional Water Board provides Sampling Frequency Reduction certification approval. Revised Sampling Frequency Reduction certifications shall be certified and submitted via SMARTS by the Discharger.

   g. A Discharger loses its Sampling Frequency Reduction certification if an NAL exceedance occurs (Section XII.A).

D. Facilities Subject to Federal Storm Water Effluent Limitation Guidelines (ELGs)

1. In addition to the other requirements in this General Permit, Dischargers with facilities subject to storm water ELGs in Subchapter N shall:

    a. Collect and analyze samples from QSEs for each regulated pollutant specified in the appropriate category in Subchapter N as specified in Section XI.B;

    b. For Dischargers with facilities subject to 40 Code of Federal Regulations parts 419[17] and 443[18], estimate or calculate the volume of industrial storm water discharges from each drainage area subject to the ELGs and the mass of each regulated pollutant as defined in parts 419 and 443; and,

    c. Ensure that the volume/mass estimates or calculations required in subsection b are completed by a California licensed professional engineer.

2. Dischargers subject to Subchapter N shall submit the information in Section XI.D.1.a through c in their Annual Report.

3. Dischargers with facilities subject to storm water ELGs in Subchapter N are ineligible for the Representative Sampling Reduction in Section XI.C.4.

XII. EXCEEDANCE RESPONSE ACTIONS (ERAs)

A. NALs and NAL Exceedances

The Discharger shall perform sampling, analysis and reporting in accordance with the requirements of this General Permit and shall compare the results to the two types of NAL values in Table 2 to determine whether either type of NAL has been exceeded for each applicable parameter. The two types of potential NAL exceedances are as follows:

1. Annual NAL exceedance: The Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data). The Discharger shall compare the average concentration for each parameter to the corresponding annual NAL values in Table 2. For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA's NPDES Storm Water

[17] Part 419 - Petroleum refining point source category

[18] Part 443 - Effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources for the paving and roofing materials (tars and asphalt) point source category

Sampling Guidance Document.[19] An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for that parameter listed in Table 2; and,

2. Instantaneous maximum NAL exceedance: The Discharger shall compare all sampling and analytical results from each distinct sample (individual or combined as authorized by XI.C.5) to the corresponding instantaneous maximum NAL values in Table 2. An instantaneous maximum NAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G) or are outside of the instantaneous maximum NAL range for pH.

B. Baseline Status

At the beginning of a Discharger's NOI Coverage, all Dischargers have Baseline status for all parameters.

C. Level 1 Status

A Discharger's Baseline status for any given parameter shall change to Level 1 status if sampling results indicate an NAL exceedance for that same parameter. Level 1 status will commence on July 1 following the reporting year during which the exceedance(s) occurred.[20]

1. Level 1 ERA Evaluation

   a. By October 1 following commencement of Level 1 status for any parameter with sampling results indicating an NAL exceedance, the Discharger shall:

   b. Complete an evaluation, with the assistance of a QISP, of the industrial pollutant sources at the facility that are or may be related to the NAL exceedance(s); and,

   c. Identify in the evaluation the corresponding BMPs in the SWPPP and any additional BMPs and SWPPP revisions necessary to prevent future NAL exceedances and to comply with the requirements of this General Permit. Although the evaluation may focus on the drainage areas where the NAL exceedance(s) occurred, all drainage areas shall be evaluated.

2. Level 1 ERA Report

[19] U.S. EPA. NPDES Storm Water Sampling Guidance Document. <http://www.epa.gov/npdes/pubs/owm0093.pdf >. [as of February 4, 2014]

[20] For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status once those results have been reported.

a. Based upon the above evaluation, the Discharger shall, as soon as practicable but no later than January 1 following commencement of Level 1 status :

i. Revise the SWPPP as necessary and implement any additional BMPs identified in the evaluation;

ii. Certify and submit via SMARTS a Level 1 ERA Report prepared by a QISP that includes the following:

1) A summary of the Level 1 ERA Evaluation required in subsection C.1 above; and,

2) A detailed description of the SWPPP revisions and any additional BMPs for each parameter that exceeded an NAL.

iii. Certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address).

b. A Discharger's Level 1 status for a parameter will return to Baseline status once a Level 1 ERA report has been completed, all identified additional BMPs have been implemented, and results from four (4) consecutive QSEs that were sampled subsequent to BMP implementation indicate no additional NAL exceedances for that parameter.

3. NAL Exceedances Prior to Implementation of Level 1 Status BMPs.

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1, whichever comes first, sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances in SMARTS.

D. Level 2 Status

A Discharger's Level 1 status for any given parameter shall change to Level 2 status if sampling results indicate an NAL exceedance for that same parameter while the Discharger is in Level 1. Level 2 status will commence on July 1 following the reporting year during which the NAL exceedance(s) occurred.[21]

1. Level 2 ERA Action Plan

[21] For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status upon the date those results have been reported into SMARTS.

a. Dischargers with Level 2 status shall certify and submit via SMARTS a Level 2 ERA Action Plan prepared by a QISP that addresses each new Level 2 NAL exceedance by January 1 following the reporting year during which the NAL exceedance(s) occurred. For each new Level 2 NAL exceedance, the Level 2 Action Plan will identify which of the demonstrations in subsection D.2.a through c the Discharger has selected to perform. A new Level 2 NAL exceedance is any Level 2 NAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.

b. The Discharger shall certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address) if this information has changed since previous certifications.

c. The Level 2 ERA Action Plan shall at a minimum address the drainage areas with corresponding Level 2 NAL exceedances.

d. All elements of the Level 2 ERA Action Plan shall be implemented as soon as practicable and completed no later than 1 year after submitting the Level 2 ERA Action Plan.

e. The Level 2 ERA Action Plan shall include a schedule and a detailed description of the tasks required to complete the Discharger's selected demonstration(s) as described below in Section D.2.a through c.

2. Level 2 ERA Technical Report

On January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, a Discharger with Level 2 status shall certify and submit a Level 2 ERA Technical Report prepared by a QISP that includes one or more of the following demonstrations:

a. Industrial Activity BMPs Demonstration

This shall include the following requirements, as applicable:

i. Shall include a description of the industrial pollutant sources and corresponding industrial pollutants that are or may be related to the NAL exceedance(s);

ii. Shall include an evaluation of all pollutant sources associated with industrial activity that are or may be related to the NAL exceedance(s);

iii. Where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this General Permit and are expected to eliminate future NAL exceedance(s), the Discharger shall provide a description and analysis of all implemented BMPs;

iv. In cases where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this General Permit but are not expected to eliminate future NAL exceedance(s), the Discharger shall provide, in addition to a description and analysis of all implemented BMPs:

1) An evaluation of any additional BMPs that would reduce or prevent NAL exceedances;

2) Estimated costs of the additional BMPs evaluated; and,

3) An analysis describing the basis for the selection of BMPs implemented in lieu of the additional BMPs evaluated but not implemented.

v. The description and analysis of BMPs required in subsection a.iii above shall specifically address the drainage areas where the NAL exceedance(s) responsible for the Discharger's Level 2 status occurred, although any additional Level 2 ERA Action Plan BMPs may be implemented for all drainage areas; and,

vi. If an alternative design storm standard for treatment control BMPs (in lieu of the design storm standard for treatment control BMPs in Section X.H.6 in this General Permit) will achieve compliance with the effluent limitations of this General Permit, the Discharger shall provide an analysis describing the basis for the selection of the alternative design storm standard.

b. Non-Industrial Pollutant Source Demonstration

This shall include:

i. A statement that the Discharger has determined that the exceedance of the NAL is attributable solely to the presence of non-industrial pollutant sources. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance.) The sources shall be identified as either run-on from adjacent properties, aerial deposition from man-made sources, or as generated by on-site non-industrial sources;

ii. A statement that the Discharger has identified and evaluated all potential pollutant sources that may have commingled with storm water associated with the Discharger's industrial activity and may be contributing to the NAL exceedance;

iii. A description of any on-site industrial pollutant sources and corresponding industrial pollutants that are contributing to the NAL exceedance;

iv. An assessment of the relative contributions of the pollutant from (1) storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition and (2) the storm water associated with the Discharger's industrial activity;

v. A summary of all existing BMPs for that parameter; and,

vi. An evaluation of all on-site/off-site analytical monitoring data demonstrating that the NAL exceedances are caused by pollutants in storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition.

c. Natural Background Pollutant Source Demonstration

This shall include:

i. A statement that the Discharger has determined that the NAL exceedance is attributable solely to the presence of the pollutant in the natural background that has not been disturbed by industrial activities. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance);

ii. A summary of all data previously collected by the Discharger, or other identified data collectors, that describes the levels of natural background pollutants in the storm water discharge;

iii. A summary of any research and published literature that relates the pollutants evaluated at the facility as part of the Natural Background Source Demonstration;

iv. Map showing the reference site location in relation to facility along with available land cover information;

v. Reference site and test site elevation;

vi. Available geology and soil information for reference and test sites;

vii. Photographs showing site vegetation;

viii. Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures; and,

ix. Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site.

3. Level 2 ERA Technical Report Submittal

a. The Discharger shall certify and submit via SMARTS the Level 2 ERA Technical Report described in Section D.2 above.

b. The State Water Board and Regional Boards (Water Boards) may review the submitted Level 2 ERA Technical Reports. Upon review of a Level 2 ERA Technical Report, the Water Boards may reject the Level 2 ERA Technical Report and direct the Discharger to take further action(s) to comply with this General Permit.

c. Dischargers with Level 2 status who have submitted the Level 2 ERA Technical Report are only required to annually update the Level 2 ERA Technical Report based upon additional NAL exceedances of the same parameter and same drainage area (if the original Level 2 ERA Technical Report contained an Industrial Activity BMP Demonstration and the implemented BMPs were expected to eliminate future NAL exceedances in accordance with Section XII.D.2.a.ii), facility operational changes, pollutant source(s) changes, and/or information that becomes available via compliance activities (monthly visual observations, sampling results, annual evaluation, etc.). The Level 2 ERA Technical Report shall be prepared by a QISP and be certified and submitted via SMARTS by the Discharger with each Annual Report. If there are no changes prompting an update of the Level 2 ERA Technical Report, as specified above, the Discharger will provide this certification in the Annual Report that there have been no changes warranting re-submittal of the Level 2 ERA Technical Report.

d. Dischargers are not precluded from submitting a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status if information is available to adequately prepare the report and perform the demonstrations described above. A Discharger who chooses to submit a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status will automatically be placed in Level 2 in accordance to the Level 2 ERA schedule.

4. Eligibility for Returning to Baseline Status

a. Dischargers with Level 2 status who submit an Industrial Activity BMPs Demonstration in accordance with subsection 2.a.i through iii above and have implemented BMPs to prevent future NAL exceedance(s) for the Level 2 parameter(s) shall return to baseline status for that parameter, if results from four (4) subsequent consecutive QSEs sampled indicate no additional NAL exceedance(s) for that parameter(s). If future NAL exceedances occur for the same parameter(s), the Discharger's Baseline status will return to Level 2 status on July 1 in the subsequent reporting year during which the NAL exceedance(s) occurred. These Dischargers shall update the Level 2 ERA Technical Report as required above in Section D.3.c.

b. Dischargers are ineligible to return to baseline status if they submit any of the following:

   i. A industrial activity BMP demonstration in accordance with subsection 2.a.iv above;

   ii. An non-industrial pollutant source demonstration; or,

   iii. A natural background pollutant source demonstration.

5. Level 2 ERA Implementation Extension

   a. Dischargers that need additional time to submit the Level 2 ERA Technical Report shall be automatically granted a single time extension for up to six (6) months upon submitting the following items into SMARTS, as applicable:

      i. Reasons for the time extension;

      ii. A revised Level 2 ERA Action Plan including a schedule and a detailed description of the necessary tasks still to be performed to complete the Level 2 ERA Technical Report; and

      iii. A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed.

   b. The Regional Water Boards will review Level 2 ERA Implementation Extensions for completeness and adequacy. Requests for extensions that total more than six (6) months are not granted unless approved in writing by the Water Boards. The Water Boards may (1) reject or revise the time allowed to complete Level 2 ERA Implementation Extensions, (2) identify additional tasks necessary to complete the Level 2 ERA Technical Report, and/or (3) require the Discharger to implement additional temporary BMPs.

XIII. INACTIVE MINING OPERATION CERTIFICATION

A. Inactive mining operations are defined in Part 3 of Attachment A of this General Permit. The Discharger may, in lieu of complying with the General Permit requirements described in subsection B below, certify and submit via SMARTS that their inactive mining operation meets the following conditions:

1. The Discharger has determined and justified in the SWPPP that it is impracticable to implement the monitoring requirements in this General Permit for the inactive mining operation;

2. A SWPPP has been signed (wet signature and license number) by a California licensed professional engineer and is being implemented in accordance with the requirements of this General Permit; and,

3. The facility is in compliance with this General Permit, except as provided in subsection B below.

B. The Discharger who has certified and submitted that they meet the conditions in subsection A above, are not subject to the following General Permit requirements:

1. Monitoring Implementation Plan in Section X.I;

2. Monitoring Requirements in Section XI;

3. Exceedance Response Actions (ERAs) in Section XII; and,

4. Annual Report Requirements in Section XVI.

C. Inactive Mining Operation Certification Submittal Schedule

1. The Discharger shall certify and submit via SMARTS NOI coverage PRDs listed in Section II.B.1 and meet the conditions in subsection A above.

2. The Discharger shall annually inspect the inactive mining site and certify via SMARTS no later than July 15th of each reporting year, that their inactive mining operation continues to meet the conditions in subsection A above.

3. The Discharger shall have a California licensed professional engineer review and update the SWPPP if there are changes to their inactive mining operation or additional BMPs are needed to comply with this General Permit. Any significant updates to the SWPPP shall be signed (wet signature and license number) by a California license professional engineer.

4. The Discharger shall certify and submit via SMARTS any significantly revised SWPPP within 30 days of the revision(s).

XIV. COMPLIANCE GROUPS AND COMPLIANCE GROUP LEADERS

A. Compliance Group Qualification Requirements

1. Any group of Dischargers of the same industry type or any QISP representing Dischargers of the same industry type may form a Compliance Group. A Compliance Group shall consist of Dischargers that operate facilities with similar types of industrial activities, pollutant sources, and pollutant characteristics (e.g., scrap metals recyclers would join a different group than paper recyclers, truck vehicle maintenance facilities would join a different group than airplane vehicle maintenance facilities, etc.). A Discharger participating in a Compliance Group is termed a Compliance Group Participant. Participation in a Compliance Group is not required. Compliance Groups may be formed at any time.

2. Each Compliance Group shall have a Compliance Group Leader.

3. To establish a Compliance Group, the Compliance Group Leader shall register as a Compliance Group Leader via SMARTS. The registration shall include documentation demonstrating compliance with the Compliance Group qualification requirements above and a list of the Compliance Group Participants.

4. Each Compliance Group Participant shall register as a member of an established Compliance Group via SMARTS.

5. The Executive Director of the State Water Board may review Compliance Group registrations and/or activities for compliance with the requirements of this General Permit. The Executive Director may reject the Compliance Group, the Compliance Group Leader, or individual Compliance Group Participants within the Compliance Group.

B. Compliance Group Leader Responsibilities

1. A Compliance Group Leader must complete a State Water Board sponsored or approved training program for Compliance Group Leaders.

2. The Compliance Group Leader shall assist Compliance Group Participants with all compliance activities required by this General Permit.

3. A Compliance Group Leader shall prepare a Consolidated Level 1 ERA Report for all Compliance Group Participants with Level 1 status for the same parameter. Compliance Group Participants who certify and submit these Consolidated Level 1 ERA Reports are subject to the same provisions as individual Dischargers with Level 1 status, as described in Section XII.C. A Consolidated Level 1 ERA Report is equivalent to a Level 1 ERA Report.

4. The Compliance Group Leader shall update the Consolidated Level 1 ERA Report as needed to address additional Compliance Group Participants with ERA Level 1 status.

5. A Compliance Group Leader shall prepare a Level 2 ERA Action Plan specific to each Compliance Group Participant with Level 2 status. Compliance Group Participants who certify and submit these Level 2 ERA Action Plans are subject to the same provisions as individual Dischargers with Level 2 status, as described in Section XII.D.

6. A Compliance Group Leader shall prepare a Level 2 ERA Technical Report specific to each Compliance Group Participant with Level 2 status. Compliance Group Participants who certify and submit these Level 2 ERA Technical Reports are subject to the same provisions as individual Dischargers with Level 2 status, as described in Section XII.D.

7. The Compliance Group Leader shall inspect all the facilities of the Compliance Group Participants that have entered Level 2 status prior to preparing the individual Level 2 ERA Technical Report.

8. The Compliance Group Leader shall revise the Consolidated Level 1 ERA Report, individual Level 2 ERA Action Plans, or individual Level 2 Technical Reports in accordance with any comments received from the Water Boards.

9. The Compliance Group Leader shall inspect all the facilities of the Compliance Group Participants at a minimum of once per reporting year (July 1 to June 30).

C. Compliance Group Participant Responsibilities

1. Each Compliance Group Participant is responsible for permit compliance for the Compliance Group Participant’s facility and for ensuring that the Compliance Group Leader’s activities related to the Compliance Group Participant’s facility comply with this General Permit.

2. Compliance Group Participants with Level 1 status shall certify and submit via SMARTS the Consolidated Level 1 ERA Report. The Compliance Group Participants shall certify that they have reviewed the Consolidated Level 1 ERA Report and have implemented any required additional BMPs. Alternatively, the Compliance Group Participant may submit an individual Level 1 ERA Report in accordance with the provisions in Section XII.C.2.

3. Compliance Group Participants with Level 2 status shall certify and submit via SMARTS their individual Level 2 ERA Action Plan and Technical Report prepared by their Compliance Group Leader. Each Compliance Group Participant shall certify that they have reviewed the Level 2 ERA Action Plan and Technical Report and will implement any required additional BMPs.

4. Compliance Group Participants can at any time discontinue their participation in their associated Compliance Group via SMARTS. Upon discontinuation, the former Compliance Group Participant is immediately subject to the sampling and analysis requirements described in Section XI.B.2.

XV. ANNUAL COMPREHENSIVE FACILITY COMPLIANCE EVALUATION (ANNUAL EVALUATION)

The Discharger shall conduct one Annual Evaluation for each reporting year (July 1 to June 30). If the Discharger conducts an Annual Evaluation fewer than eight (8) months, or more than sixteen (16) months, after it conducts the previous Annual Evaluation, it shall document the justification for doing so. The Discharger shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the Annual Evaluation. At a minimum, Annual Evaluations shall consist of:

A. A review of all sampling, visual observation, and inspection records conducted during the previous reporting year;

B. An inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system;

C. An inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section XVII;

D. An inspection of equipment needed to implement the BMPs;

E. An inspection of any BMPs;

F. A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDs; and,

G. An assessment of any other factors needed to comply with the requirements in Section XVI.B.

XVI. ANNUAL REPORT

A. The Discharger shall certify and submit via SMARTS an Annual Report no later than July 15th following each reporting year using the standardized format and checklists in SMARTS.

B. The Discharger shall include in the Annual Report:

1. A Compliance Checklist that indicates whether a Discharger complies with, and has addressed all applicable requirements of this General Permit;

2. An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist;

3. An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year; and,

4. The date(s) of the Annual Evaluation.

XVII. CONDITIONAL EXCLUSION - NO EXPOSURE CERTIFICATION (NEC)

A. Discharges composed entirely of storm water that has not been exposed to industrial activity are not industrial storm water discharges. Dischargers are conditionally excluded from complying with the SWPPP and monitoring requirements of this General Permit if all of the following conditions are met:

1. There is no exposure of Industrial Materials and Activities to rain, snow, snowmelt, and/or runoff;

2. All unauthorized NSWDs have been eliminated and all authorized NSWDs meet the conditions of Section IV;

3. The Discharger has certified and submitted via SMARTS PRDs for NEC coverage pursuant to the instructions in Section II.B.2; and,

4. The Discharger has satisfied all other requirements of this Section.

B. NEC Specific Definitions

1. No Exposure - all Industrial Materials and Activities are protected by a Storm-Resistant Shelter to prevent all exposure to rain, snow, snowmelt, and/or runoff.

2. Industrial Materials and Activities - includes, but is not limited to, industrial material handling activities or equipment, machinery, raw materials, intermediate products, by-products, final products, and waste products.

3. Material Handling Activities - includes the storage, loading and unloading, transportation, or conveyance of any industrial raw material, intermediate product, final product, or waste product.

4. Sealed - banded or otherwise secured, and without operational taps or valves.

5. Storm-Resistant Shelters - includes completely roofed and walled buildings or structures. Also includes structures with only a top cover supported by permanent supports but with no side coverings, provided material within the structure is not subject to wind dispersion (sawdust, powders, etc.), or track-out, and there is no storm water discharged from within the structure that comes into contact with any materials.

C. NEC Qualifications

To qualify for an NEC, a Discharger shall:

1. Except as provided in subsection D below, provide a Storm-Resistant Shelter to protect Industrial Materials and Activities from exposure to rain, snow, snowmelt, run-on, and runoff;

2. Inspect and evaluate the facility annually to determine that storm water exposed to industrial materials or equipment has not and will not be discharged to waters of the United States. Evaluation records shall be maintained for five (5) years in accordance with Section XXI.J.4;

3. Register for NEC coverage by certifying that there are no discharges of storm water contaminated by exposure to Industrial Materials and Activities from areas of the facility subject to this General Permit, and certify that all unauthorized NSWDs have been eliminated and all authorized NSWDs meet the conditions of Section IV (Authorized NSWDs). NEC coverage and annual renewal requires payment of an annual fee in accordance with California Code of Regulations, title 23, section 2200 et seq.; and,

4. Submit PRDs for NEC coverage shall be prepared and submitted in accordance with the:

    a. Certification requirements in Section XXI.K; and,

    b. Submittal schedule in accordance with Section II.B.2.

D. NEC Industrial Materials and Activities - Storm-Resistant Shelter Not Required

To qualify for NEC coverage, a Storm-Resistant Shelter is not required for the following:

1. Drums, barrels, tanks, and similar containers that are tightly Sealed, provided those containers are not deteriorated, do not contain residual industrial materials on the outside surfaces, and do not leak;

2. Adequately maintained vehicles used in material handling;

3. Final products, other than products that would be mobilized in storm water discharge (e.g., rock salt);

4. Any Industrial Materials and Activities that are protected by a temporary shelter for a period of no more than ninety (90) days due to facility construction or remodeling; and,

5. Any Industrial Materials and Activities that are protected within a secondary containment structure that will not discharge storm water to waters of the United States.

E. NEC Limitations

1. NEC coverage is available on a facility-wide basis only, not for individual outfalls. If a facility has industrial storm water discharges from one or more drainage areas that require NOI coverage, Dischargers shall register for NOI coverage for the entire facility through SMARTS in accordance with Section II.B.2. Any drainage areas on that facility that would otherwise qualify for NEC coverage may be specially addressed in the facility SWPPP by including an NEC Checklist and a certification statement demonstrating that those drainage areas of the facility have been evaluated; and that none of the Industrial Materials or Activities listed in subsection C above are, or will be in the foreseeable future, exposed to precipitation.

2. If circumstances change and Industrial Materials and Activities become exposed to rain, snow, snowmelt, and/or runoff, the conditions for this exclusion shall no longer apply. In such cases, the Discharger may be subject to enforcement for discharging without a permit. A Discharger with NEC coverage that anticipates changes in circumstances should register for NOI coverage at least seven (7) days before anticipated exposure.

3. The Regional Water Board may deny NEC coverage and require NOI coverage upon determining that:

   a. Storm water is exposed to Industrial Materials and Activities; and/or

   b. The discharge has a reasonable potential to cause or contribute to an exceedance of an applicable water quality standards.

F. NEC Permit Registration Documents Required for Initial NEC Coverage

A Discharger shall submit via SMARTS the following PRDs for NEC coverage to document the applicability of the conditional exclusion:

1. The NEC form, which includes:

   a. The legal name, postal address, telephone number, and e-mail address of the Discharger;

   b. The facility business name and physical mailing address, the county name, and a description of the facility location if the facility does not have a physical mailing address; and,

   c. Certification by the Discharger that all PRDs submitted are correct and true and the conditions of no exposure have been met.

2. An NEC Checklist prepared by the Discharger demonstrating that the facility has been evaluated; and that none of the following industrial materials or activities are, or will be in the foreseeable future, exposed to precipitation:

a. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed;

b. Materials or residuals on the ground or in storm water inlets from spills/leaks;

c. Materials or products from past industrial activity;

d. Material handling equipment (except adequately maintained vehicles);

e. Materials or products during loading/unloading or transporting activities;

f. Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutants);

g. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

h. Materials or products handled/stored on roads or railways owned or maintained by the Discharger;

i. Waste material (except waste in covered, non-leaking containers, e.g., dumpsters);

j. Application or disposal of processed wastewater (unless already covered by an NPDES permit); and,

k. Particulate matter or visible deposits of residuals from roof stacks/vents evident in the storm water outflow.

3. Site Map (see Section X.E).

G. Requirements for Annual NEC Coverage Recertification

By October 1 of each reporting year beginning in 2015, any Discharger who has previously registered for NEC coverage shall either submit and certify an NEC demonstrating that the facility has been evaluated, and that none of the Industrial Materials or Activities listed above are, or will be in the foreseeable future, exposed to precipitation, or apply for NOI coverage.

H. NEC Certification Statement

All NEC certifications and re-certifications shall include the following certification statement:

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of 'no exposure' and obtaining an exclusion from NPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities *or materials from the industrial facility identified in this document (except as allowed in subsection C above). I understand that I am obligated to submit a no exposure certification form annually to the State Water Board and, if requested, to the operator of the local Municipal Separate Storm Sewer System (MS4) into which this facility discharges (where applicable). I understand that I must allow the Water Board staff, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of storm water from the facility. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

XVIII. SPECIAL REQUIREMENTS - PLASTIC MATERIALS

A. Facilities covered under this General Permit that handle Plastic Materials are required to implement BMPs to eliminate discharges of plastic in storm water in addition to the other requirements of this General Permit that are applicable to all other Industrial Materials and Activities. Plastic Materials are virgin and recycled plastic resin pellets, powders, flakes, powdered additives, regrind, dust, and other similar types of preproduction plastics with the potential to discharge or migrate off-site. Any Dischargers' facility handling Plastic Materials will be referred to as Plastics Facilities in this General Permit. Any Plastics Facility covered under this General Permit that manufactures, transports, stores, or consumes these materials shall submit information to the State Water Board in their PRDs, including the type and form of plastics, and which BMPs are implemented at the facility to prevent illicit discharges. Pursuant to Water Code section 13367, Plastics Facilities are subject to mandatory, minimum BMPs.

1. At a minimum, Plastics Facilities shall implement and include in the SWPPP:

   a. Containment systems at each on-site storm drain discharge location down gradient of areas containing plastic material. The containment system shall be designed to trap all particles retained by a 1mm mesh screen, with a treatment capacity of no less than the peak flow rate from a one-year, one-hour storm.

   b. When a containment system is infeasible, or poses the potential to cause an illicit discharge, the facility may propose a technically feasible alternative BMP or suite of BMPs. The alternative BMPs shall be designed to achieve the same or better performance standard as a 1mm mesh screen with a treatment capacity of the peak flow rate from a one-year, one-hour storm. Alternative BMPs shall be submitted to the Regional Water Board for approval.

c. Plastics Facilities shall use durable sealed containers designed not to rupture under typical loading and unloading activities at all points of plastic transfer and storage.

d. Plastics Facilities shall use capture devices as a form of secondary containment during transfers, loading, or unloading Plastic Materials. Examples of capture devices for secondary containment include, but are not limited to catch pans, tarps, berms or any other device that collects errant material.

e. Plastics Facilities shall have a vacuum or vacuum-type system for quick cleanup of fugitive plastic material available for employees.

f. Pursuant to Water Code section 13367(e)(1), Plastics Facilities that handle Plastic Materials smaller than 1mm in size shall develop a containment system designed to trap the smallest plastic material handled at the facility with a treatment capacity of at least the peak flow rate from a one-year, one-hour storm, or develop a feasible alternative BMP or suite of BMPs that are designed to achieve a similar or better performance standard that shall be submitted to the Regional Water Board for approval.

2. Plastics Facilities are exempt from the Water Code requirement to install a containment system under section 13367 of the Water Code if they meet one of the following requirements that are determined to be equal to, or exceed the performance requirements of a containment system:

   a. The Discharger has certified and submitted via SMARTS a valid No Exposure Certification (NEC) in accordance with Section XVII; or

   b. Plastics Facilities are exempt from installing a containment system, if the following suite of eight (8) BMPs is implemented. This combination of BMPs is considered to reduce or prevent the discharge of plastics at a performance level equivalent to or better than the 1mm mesh and flow standard in Water Code section 13367(e)(1).

      i. Plastics Facilities shall annually train employees handling Plastic Materials. Training shall include environmental hazards of plastic discharges, employee responsibility for corrective actions to prevent errant Plastic Materials, and standard procedures for containing, cleaning, and disposing of errant Plastic Materials.

ii. Plastics Facilities shall immediately fix any Plastic Materials containers that are punctured or leaking and shall clean up any errant material in a timely manner.

iii. Plastics Facilities shall manage outdoor waste disposal of Plastic Materials in a manner that prevents the materials from leaking from waste disposal containers or during waste hauling.

iv. Plastics Facilities that operate outdoor conveyance systems for Plastic Materials shall maintain the system in good operating condition. The system shall be sealed or filtered in such a way as to prevent the escape of materials when in operation. When not in operation, all connection points shall be sealed, capped, or filtered so as to not allow material to escape. Employees operating the conveyance system shall be trained how to operate in a manner that prevents the loss of materials such as secondary containment, immediate spill response, and checks to ensure the system is empty during connection changes.

v. Plastics Facilities that maintain outdoor storage of Plastic Materials shall do so in a durable, permanent structure that prevents exposure to weather that could cause the material to migrate or discharge in storm water.

vi. Plastics Facilities shall maintain a schedule for regular housekeeping and routine inspection for errant Plastic Materials. The Plastics Facility shall ensure that their employees follow the schedule.

vii. PRDs shall include the housekeeping and routine inspection schedule, spill response and prevention procedures, and employee training materials regarding plastic material handling.

viii. Plastics Facilities shall correct any deficiencies in the employment of the above BMPs that result in errant Plastic Materials that may discharge or migrate off-site in a timely manner. Any Plastic Materials that are discharged or that migrate off-site constitute an illicit discharge in violation of this General Permit.

XIX. REGIONAL WATER BOARD AUTHORITIES

A. The Regional Water Boards may review a Discharger's PRDs for NOI or NEC coverage and administratively reject General Permit coverage if the PRDs are deemed incomplete. The Regional Water Boards may take actions that include rescinding General Permit coverage, requiring a Discharger to revise and re-submit their PRDs (certified and submitted by the Discharger) within a specified time period, requiring the Discharger to apply for different General Permit coverage or a different individual or general permit, or taking no action.

B. The Regional Water Boards have the authority to enforce the provisions and requirements of this General Permit. This includes, but is not limited to, reviewing SWPPPs, Monitoring Implementation Plans, ERA Reports, and Annual Reports, conducting compliance inspections, and taking enforcement actions.

C. As appropriate, the Regional Water Boards may issue NPDES storm water general or individual permits to a Discharger, categories of Dischargers, or Dischargers within a watershed or geographic area. Upon issuance of such NPDES permits, this General Permit shall no longer regulate the affected Discharger(s).

D. The Regional Water Boards may require a Discharger to revise its SWPPP, ERA Reports, or monitoring programs to achieve compliance with this General Permit. In this case, the Discharger shall implement these revisions in accordance with a schedule provided by the Regional Water Board.

E. The Regional Water Boards may approve requests from a Discharger to include co-located, but discontiguous, industrial activities within the same facility under a single NOI or NEC coverage.

F. Consistent with 40 Code of Federal Regulations section 122.26(a)(9)(i)(D), the Regional Water Boards may require any discharge that is not regulated by this General Permit, that is determined to contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States, to be covered under this General Permit as appropriate. Upon designation, the Discharger responsible for the discharge shall obtain coverage under this General Permit.

G. The Regional Water Boards may review a Discharger's Inactive Mining Operation Certification and reject it at any time if the Regional Water Board determines that access to the facility for monitoring purposes is practicable or that the facility is not in compliance with the applicable requirements of this General Permit.

H. All Regional Water Board actions that modify a Discharger's obligations under this General Permit must be in writing and should also be submitted in SMARTS.

XX. SPECIAL CONDITIONS

A. Reopener Clause

This General Permit may be reopened and amended to incorporate TMDL-related provisions. This General Permit may also be modified, revoked and reissued, or terminated for cause due to promulgation of amended regulations, water quality control plans or water quality control policies, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 Code of Federal Regulations sections 122.62, 122.63, 122.64, and 124.5.

B. Water Quality Based Corrective Actions

Attachment F
Annual Reports

Attachment G

SPCC

Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

Facility Name: CG Roxane, LLC.

Facility Address: 1210 S. Hwy 395

City: Olancha State: CA ZIP: 93549

County: Inyo Tel. Number: (760)764 2885

Owner or Operator Name: Ronan Papillaud

Owner or Operator Address: 2330 Marinship Way Suite 190

City: Sausalito State: CA ZIP: 94965

County: ______ Tel. Number: (415)339-8230

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I George Castañeda certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
   a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
   b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
   c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

I also understand my other obligations relating to the storage of oil at this facility, including, among others:

1. To report any oil discharge to navigable waters or adjoining shorelines to the appropriate authorities. Notification information is included in this Plan.
2. To review and amend this Plan whenever there is a material change at the facility that affects the potential for an oil discharge, and at least once every five years. Reviews and amendments are recorded in an attached log [See Five Year Review Log and Technical Amendment Log in Attachments 1.1 and 1.2.]
3. Optional use of a contingency plan. A contingency plan:
   a. May be used in lieu of secondary containment for qualified oil-filled operational equipment, in accordance with the requirements under §112.7(k), and;
   b. Must be prepared for flowlines and/or intra-facility gathering lines which do not have secondary containment at an oil production facility, and;
   c. Must include an established and documented inspection or monitoring program; must follow the provisions of 40 CFR part 109; and must include a written commitment of manpower, equipment and materials to expeditiously remove any quantity of oil discharged that may be harmful. If applicable, a copy of the contingency plan and any additional documentation will be attached to this Plan as Attachment 2.

I certify that I have satisfied the requirement to prepare and implement a Plan under §112.3 and all of the requirements under §112.6(a). I certify that the information contained in this Plan is true.

Signature: Geo J Castaneda, Jr   Title: Corporate Quality Control Manager

Name: George J Castaneda, Jr   Date: 04/11/2016

II. Record of Plan Review and Amendments

Five Year Review (§112.5(b)):

Complete a review and evaluation of this SPCC Plan at least once every five years. As a result of the review, amend this Plan within six months to include more effective prevention and control measures for the facility, if applicable. Implement any SPCC Plan amendment as soon as possible, but no later than six months following Plan amendment. Document completion of the review and evaluation, and complete the Five Year Review Log in Attachment 1.1. If the facility no longer meets Tier I qualified facility eligibility, the owner or operator must revise the Plan to meet Tier II qualified facility requirements, or complete a full PE certified Plan.

Table G-1 Technical Amendments (§§112.5(a), (c) and 112.6(a)(2))	
This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the potential for a discharge to navigable waters or adjoining shorelines. Examples include adding or removing containers, reconstruction, replacement, or installation of piping systems, changes to secondary containment systems, changes in product stored at this facility, or revisions to standard operating procedures.	☑
Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template. *[§112.6(a)(2)]* **[See Technical Amendment Log in Attachment 1.2]**	☑

III. Plan Requirements

1. Oil Storage Containers (§112.7(a)(3)(i)):

Table G-2 Oil Storage Containers and Capacities

This table includes a complete list of all oil storage containers (aboveground containers[a] and completely buried tanks[b]) with capacity of 55 U.S. gallons or more, unless otherwise exempt from the rule. For mobile/portable containers, an estimated number of containers, types of oil, and anticipated capacities are provided. ☑

Oil Storage Container *(indicate whether aboveground (A) or completely buried (B))*	**Type of Oil**	**Shell Capacity (gallons)**
A (3) 55 Gallon	Glycol	165
A (1) 55 Gallon	15-40w Motor Oil	55
A (3) 55 Gallon	15032 Compressor Oil	165
A (3) 330 Gallon Poly Tote	Hydraulic Oil	990
A (1) 300 Generator (Fire Suppression System)	Diesel	300
A (1) 500 Generator (Fire Suppression System)	Diesel	500
A (1) 55 Gallon	Transmission Fluid	55

Total Aboveground Storage Capacity [c] 2230 gallons
Total Completely Buried Storage Capacity ~~0~~ gallons
Facility Total Oil Storage Capacity ______ gallons

[a] Aboveground storage containers that must be included when calculating total facility oil storage capacity include: tanks and mobile or portable containers; oil-filled operational equipment (e.g. transformers); other oil-filled equipment, such as flow-through process equipment. Exempt containers that are not included in the capacity calculation include: any container with a storage capacity of less than 55 gallons of oil; containers used exclusively for wastewater treatment; permanently closed containers; motive power containers; hot-mix asphalt containers; heating oil containers used solely at a single-family residence; and pesticide application equipment or related mix containers.

[b] Although the criteria to determine eligibility for qualified facilities focuses on the aboveground oil storage containers at the facility, the completely buried tanks at a qualified facility are still subject to the rule requirements and must be addressed in the template; however, they are not counted toward the qualified facility applicability threshold.

[c] Counts toward qualified facility applicability threshold.

2. Secondary Containment and Oil Spill Control (§§112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2)):

Table G-3 Secondary Containment and Oil Spill Control

Appropriate secondary containment and/or diversionary structures or equipment[a] is provided for all oil handling containers, equipment, and transfer areas to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs. ☑

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

Table G-4 below identifies the tanks and containers at the facility with the potential for an oil discharge; the mode of failure; the flow direction and potential quantity of the discharge; and the secondary containment method and containment capacity that is provided.

Area	Type of failure (discharge scenario)	Potential discharge volume (gallons)	Direction of flow for uncontained discharge	Secondary containment method[a]	Secondary containment capacity (gallons)
Bulk Storage Containers and Mobile/Portable Containers[b]					
(8) 55 gallon poly Drums	Spill	55	NE	Oil Containment Room	Approx. 9000gal.
(3) 330 gallon poly Totes	Spill	330	NE	Oil Containment Room	Approx. 9000gal
(1) 300 gallon Steel Tank	Spill	300	NE	Coventional Secondary Cont.	Approx 400gal
(1) 500 gallon Convault	Spill	500	NE	Convault	
Oil-filled Operational Equipment (e.g., hydraulic equipment, transformers)[c]					
(8) HUSKY IBM	Rupture / Leak	500	NE	Inside Building	OEOF Insp. Form
#1, #2, #3, #5, #6, #7,					
#8, #10					
Piping, Valves, etc.					
Husky Associated Piping	Rupture / Leak	50-100	NE	Inside Building	OEOF Insp. Form
Product Transfer Areas (location where oil is loaded to or from a container, pipe or other piece of equipment.)					
Other Oil-Handling Areas or Oil-Filled Equipment (e.g. flow-through process vessels at an oil production facility)					

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.
[b] For storage tanks and bulk storage containers, the secondary containment capacity must be at least the capacity of the largest container plus additional capacity to contain rainfall or other precipitation.
[c] For oil-filled operational equipment: Document in the table above if alternative measures to secondary containment (as described in §112.7(k)) are implemented at the facility.

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-5 Inspections, Testing, Recordkeeping and Personnel Training	
An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. *[§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]*	☑
The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility: (1) An OEOF Checklist will be completed monthly. This covers all containers and oil filled equipment and associated piping. (2) SPCC and oil Handling Training. (3) 6 individuals are taking 24 hr. HAZWOPER course (John Roberts, Richard Riley, Manuel Luna, Charles Abbott, Juan Gutierrez, Dave Adair) (certs provided upon completion)	
Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. *[§112.7(e)]*	☑
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. *[§112.7(e)]* **[See Inspection Log and Schedule in Attachment 3.1]**	☑
Inspections and tests are signed by the appropriate supervisor or inspector. *[§112.7(e)]*	☑
Personnel, training, and discharge prevention procedures [§112.7(f)]	
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. *[§112.7(f)]*	☑
A person who reports to facility management is designated and accountable for discharge prevention. *[§112.7(f)]* Name/Title: George J Castañeda, Jr (760) 920-3527	☑
Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. *[§112.7(f)]* **[See Oil-handling Personnel Training and Briefing Log in Attachment 3.4]**	☑

4. Security (excluding oil production facilities) §112.7(g):

Table G-6 Implementation and Description of Security Measures	
Security measures are implemented at this facility to prevent unauthorized access to oil handling, processing, and storage area.	☑
The following is a description of how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges: (1) Key Control (2) Card access to only trained and qualified personnel (3) All containers, containments and oil filled equipment are on the monthly OEOF checklist.	

5. Emergency Procedures and Notifications (§112.7(a)(3)(iv) and 112.7(a)(5)):

Table G-7 Description of Emergency Procedures and Notifications
The following is a description of the immediate actions to be taken by facility personnel in the event of a discharge to navigable waters or adjoining shorelines *[§112.7(a)(3)(iv) and 112.7(a)(5)]*: See Contingency Plan & Emergency Procedure.

OLANCHA INJ./BLOWING DEPARTMENT EQUIP. LIST

HUSKY 1: MODEL# XL225P SER# 9510 YEAR 09/90
Robot SER# 9511 EXT 85

HUSKY 2: MODEL # XL225P SER# 9580 YEAR 01/91
Robot SER# 9582 EXT 85

HUSKY 3: MODEL # XL300PET SER# 10225 YEAR 01/94
Robot SER# 10226 EXT 85

[redacted] (Not in Use)

HUSKY 5: MODEL # GL300PET SER# 2022248 YEAR 99/03/03
Robot SER# 2022250 FRST.DG.B EXT 100

HUSKY 6: MODEL # HYPET300 SER# 3029303 YEAR 05/2005 Patch 104512
Robot SER# 3029307

HUSKY 7: MODEL # LX225 SER# 11479 YEAR 95/03/13
Robot SER# 11528 EXT 85

HUSKY 8: MODEL # GL300 SER# 3065676 YEAR
Robot SER# 2818697 EXT P100/120 E120

HUSKY 10: MODEL # HyPET 300 4.0 SER# 5836846
Robot SER# 5836847 EXT P85/95 EE85

6. Contact List (§112.7(a)(3)(vi)): See Contingency Plan

Table G-8 Contact List

Contact Organization / Person	**Telephone Number**
National Response Center (NRC)	1-800-424-8802
Cleanup Contractor(s)	
Key Facility Personnel	
Designated Person Accountable for Discharge Prevention: George Castaneda	Office: 760 764-1833 Emergency: 760 920-3527
John Roberts	Office: 760 764-1815 Emergency: 760 264-6490
Juan Gutierrez	Office: 760 764-2885 Emergency: 760 219-0116
	Office: Emergency:
State Oil Pollution Control Agencies	
Other State, Federal, and Local Agencies	
Local Fire Department	911
Local Police Department	911
Hospital	760 876-5510
Other Contact References (e.g., downstream water intakes or neighboring facilities)	

7. NRC Notification Procedure (§112.7(a)(4) and (a)(5)):

Table G-9 NRC Notification Procedure	
In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information identified in Attachment 4 will be provided to the National Response Center immediately following identification of a discharge to navigable waters or adjoining shorelines **[See Discharge Notification Form in Attachment 4]**: *[§112.7(a)(4)]*	☐
• The exact address or location and phone number of the facility; • Date and time of the discharge; • Type of material discharged; • Estimate of the total quantity discharged; • Estimate of the quantity discharged to navigable waters; • Source of the discharge;	• Description of all affected media; • Cause of the discharge; • Any damages or injuries caused by the discharge; • Actions being used to stop, remove, and mitigate the effects of the discharge; • Whether an evacuation may be needed; and • Names of individuals and/or organizations who have also been contacted.

8. SPCC Spill Reporting Requirements (Report within 60 days) (§112.4):

Submit information to the EPA Regional Administrator (RA) and the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located within 60 days from one of the following discharge events:

A single discharge of more than 1,000 U.S. gallons of oil to navigable waters or adjoining shorelines or
Two discharges to navigable waters or adjoining shorelines each more than 42 U.S. gallons of oil occurring within any twelve month period

You must submit the following information to the RA:

(1) Name of the facility;
(2) Your name;
(3) Location of the facility;
(4) Maximum storage or handling capacity of the facility and normal daily throughput;
(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
(7) The cause of the reportable discharge, including a failure analysis of the system or subsystem in which the failure occurred; and
(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

* * * * *

NOTE: Complete one of the following sections (A, B or C) as appropriate for the facility type.

ATTACHMENT 1 – Five Year Review and Technical Amendment Logs

ATTACHMENT 1.1 – Five Year Review Log

I have completed a review and evaluation of the SPCC Plan for this facility, and will/will not amend this Plan as a result.

Table G-13 Review and Evaluation of SPCC Plan for Facility

Review Date	Plan Amendment		Name and signature of person authorized to review this Plan
	Will Amend	Will Not Amend	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

ATTACHMENT 1.2 – Technical Amendment Log

Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template.

Table G-15 Description and Certification of Technical Amendments

Review Date	Description of Technical Amendment	Name and signature of person certifying this technical amendment

ATTACHMENT 2 – Oil Spill Contingency Plan and Checklist

An oil spill contingency plan and written commitment of resources is required for:

- Flowlines and intra-facility gathering lines at oil production facilities and
- Qualified oil-filled operational equipment which has no secondary containment.

An oil spill contingency plan meeting the provisions of 40 CFR part 109, as described below, and a written commitment of manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful is attached to this Plan.	☑

Complete the checklist below to verify that the necessary operations outlined in 40 CFR part 109 - Criteria for State, Local and Regional Oil Removal Contingency Plans - have been included.

Table G-15 Checklist of Development and Implementation Criteria for State, Local and Regional Oil Removal Contingency Plans (§109.5)[a]	
(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved in planning or directing oil removal operations.	☑
(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including:	
(1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges.	☑
(2) A current list of names, telephone numbers and addresses of the responsible persons (with alternates) and organizations to be notified when an oil discharge is discovered.	☑
(3) Provisions for access to a reliable communications system for timely notification of an oil discharge, and the capability of interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans (e.g., NCP).	☑
(4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority.	☑
(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including:	
(1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally.	☑
(2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated.	☑
(3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge.	☑
(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including:	
(1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel.	☑
(2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans.	☑
(3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations.	☑
(4) Provisions for varying degrees of response effort depending on the severity of the oil discharge.	☑
(5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses.	☑
(6) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances.	☑

[a] The contingency plan must be consistent with all applicable state and local plans, Area Contingency Plans, and the National Contingency Plan (NCP)

ATTACHMENT 3 – Inspections, Dike Drainage and Personnel Training Logs

ATTACHMENT 3.1 – Inspection Log and Schedule

Table G-16 Inspection Log and Schedule

This log is intended to document compliance with §§112.6(a)(3)(iii), 112.8(c)(6), 112.8(d)(4), 112.9(b)(2), 112.9(c)(3), 112.9(d)(1), 112.9(d)(4), 112.12.(c)(6), and 112.12(d)(4), as applicable.

Date of Inspection	Container / Piping / Equipment	Describe Scope (or cite Industry Standard)	Observations	Name/ Signature of Inspector	Records maintained separately [a]
					☐
					☐
					☐
					☐
					☐

[a] Indicate in the table above if records of facility inspections are maintained separately at this facility.

ATTACHMENT 3.2 – Bulk Storage Container Inspection Schedule – onshore facilities (excluding production):

To comply with integrity inspection requirement for bulk storage containers, inspect/test each shop-built aboveground bulk storage container on a regular schedule in accordance with a recognized container inspection standard based on the minimum requirements in the following table.

Table G-17 Bulk Storage Container Inspection Schedule	
Container Size and Design Specification	**Inspection requirement**
Portable containers (including drums, totes, and intermodal bulk containers (IBC))	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas
55 to 1,100 gallons with sized secondary containment	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas plus any annual inspection elements per industry inspection standards
1,101 to 5,000 gallons with sized secondary containment and a means of leak detection[a]	
1,101 to 5,000 gallons with sized secondary containment and no method of leak detection[a]	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas, plus any annual inspection elements and other specific integrity tests that may be required per industry inspection standards

[a] Examples of leak detection include, but are not limited to, double-walled tanks and elevated containers where a leak can be visually identified.

Date	Bypass valve sealed closed	Rainwater inspected to be sure no oil (or sheen) is visible	Open bypass valve and reseal it following drainage	Drainage activity supervised	Observations	Signature of Inspector
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		

Facility Name: C6 Roxane, LLC

ATTACHMENT 3.4 – Oil-handling Personnel Training and Briefing Log

Table G-19 Oil-Handling Personnel Training and Briefing Log

Date	Description / Scope	Attendees

ATTACHMENT 4 – Discharge Notification Form

In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information will be provided to the National Response Center **[also see the notification information provided in Section 7 of the Plan]**:

Table G-20 Information provided to the National Response Center in the Event of a Discharge

Discharge/Discovery Date		Time	
Facility Name			
Facility Location (Address/Lat-Long/Section Township Range)			
Name of reporting individual		Telephone #	
Type of material discharged		Estimated total quantity discharged	Gallons/Barrels
Source of the discharge		Media affected	☐ Soil ☐ Water (specify) ☐ Other (specify)
Actions taken			
Damage or injuries	☐ No ☐ Yes (specify)	Evacuation needed?	☐ No ☐ Yes (specify)
Organizations and individuals contacted	☐ National Response Center 800-424-8802 Time ☐ Cleanup contractor (Specify) Time ☐ Facility personnel (Specify) Time ☐ State Agency (Specify) Time ☐ Other (Specify) Time		

Attachment H
Training Forms

Trained Contractor Personnel Log

Project Name: CG Roxane Olancha Bottling Facility

Project Number/Location: Olancha, California

Storm Water Management Topic: (check as appropriate)

- ❑ Non-Stormwater Discharge
- ❑ Spill Prevention
- ❑ Vehicle and Equipment
- ❑ Waste Management
- ❑ Building and Grounds Maintenance
- ❑ Pavement and Concrete Maintenance
- ❑ Drainage System Maintenance
- ❑ Storage Tank Inspection and Maintenance
- ❑ Other______________________________

Specific Training Objective: ______________________________

Location: ______________________________ Date: ______________________________

Instructor: ______________________________ Telephone: ______________________________

Course Length (hours): ______________________

Attendee Roster (attach additional forms if necessary)

Name	Company	Phone

Name	Company	Phone

COMMENTS:

Attachment I

SWPPP and Monitoring Program Review Sheet

STORM WATER POLLUTION PREVENTION PLAN and MONITORING PROGRAM REVIEW SHEET

GENERAL INDUSTRIAL ACTIVITIES STORM WATER PERMIT WATER QUALITY ORDER NO. 97-03-DWQ

FACILITY NAME ______________________________

WDID# ____________________ REVIEW DATE ____________________

FACILITY CONTACT		CONSULTANT CONTACT	
Name	______________	Name	______________
Title	______________	Title	______________
Company	______________	Company	______________
Street Address	______________	Street Address	______________
City, State	______________	City, State	______________
Zip	______________	Zip	______________

Indication of WDID# ☐ **YES** ☐ **NO**

STORM WATER POLLUTION PREVENTION PLAN		Not Applicable	Included	Not Included	Incomplete	Comments
Signed Certification	**(C.9 and C.10)**					
Pollution Prevention Team	**(A.3.a)**					
Existing Facility Plans	**(A.3.b)**					
Facility Site Map(s)						
Facility boundaries	(A.4.a)					
Drainage areas	(A.4.a)					
Direction of flow	(A.4.a)					
On-site water bodies	(A.4.a)					
Areas of soil erosion	(A.4.a)					
Nearby water bodies	(A.4.a)					
Municipal storm drain inlets	(A.4.a)					
Points of discharge	(A.4.b)					
Structural control measures	(A.4.b)					
Impervious areas (paved areas, buildings, covered areas, roofed areas)	(A.4.c)					
Location of directly exposed materials	(A.4.d)					
Locations of significant spills and leaks	(A.4.d)					
Storage areas / Storage tanks	(A.4.e)					
Shipping and receiving areas	(A.4.e)					
Fueling areas	(A.4.e)					
Vehicle and equipment storage and maintenance	(A.4.e)					
Material handling / Material processing	(A.4.e)					
Waste treatment / Waste disposal	(A.4.e)					
Dust generation / Particulate generation	(A.4.e)					
Cleaning areas / Rinsing areas	(A.4.e)					
Other areas of industrial activities	(A.4.e)					
STORM WATER		**Not Applicable**	**Included**	**Not Included**	**Incomplete**	**Comments**

Items in parentheses refer to specific sections of the General Permit

Reviewer ____________________

POLLUTION PREVENTION PLAN

List of Significant Materials	**(A.5)**					
For each material listed:						
Storage location						
Receiving and shipping location						
Handling location						
Quantity						
Frequency						
Description of Potential Pollution Sources	**(A.6)**					
Industrial processes	(A.6.a.i)					
Material handling and storage areas	(A.6.a.ii)					
Dust and particulate generating activities	(A.6.a.iii)					
Significant spills and leaks	(A.6.a.iv)					
Non-storm water discharges	(A.6.a.v)					
Soil erosion	(A.6.a.vi)					
Assessment of Potential Pollutant Sources	**(A.7)**					
Areas likely to be sources of pollutants	(A.7.a.i)					
Pollutants likely to be present	(A.7.a.ii)					
Storm Water Best Management Practices	**(A.8)**					
Existing BMPs						
Existing BMPs to be revised and/or implemented						
New BMPs to be implemented						
Non-structural BMPs	**(A.8.a)**					
Good housekeeping	(A.8.a.i)					
Preventative maintenance	(A.8.a.ii)					
Spill response	(A.8.a.iii)					
Material handling and storage	(A.8.a.iv)					
Employee training	(A.8.a.v)					
Waste handling / Waste recycling	(A.8.a.vi)					
Recordkeeping and internal reporting	(A.8.a.vii)					
Erosion control and site stabilization	(A.8.a.viii)					
Inspections	(A.8.a.ix)					
Quality assurance	(A.8.a.x)					
Structural BMPs	**(A.8.b)**					
Overhead coverage	(A.8.b.i)					
Retention ponds	(A.8.b.ii)					
Control devices	(A.8.b.iii)					
Secondary containment structures	(A.8.b.iv)					
Treatment	(A.8.b.v)					
Annual Comprehensive Site Compliance Evaluation						
Review of visual observations, inspections, and sampling analysis	(A.9.a)					
Visual inspection of potential pollution sources	(A.9.b)					
Review and evaluation of BMPs	(A.9.c)					
Evaluation report	(A.9.d)					

Items in parentheses refer to specific sections of the General Permit

Reviewer ________________________

MONITORING PROGRAM	Not Applicable	Included	Not Included	Incomplete	Comments
Quarterly Non-Storm Water Discharge Visual Observations (B.3)					
Observations to be conducted (B.3.c) (Jan-March, April-June, July-September, October-December)					
All drainage areas (B.3.a)					
Look for presence of unauthorized NSWDs (B.3.a)					
Observe authorized NSWDs (B.3.b)					
Maintain observation records (B.3.d)					
Storm Water Discharge Visual Observations (B.4)					
Once per month during wet season (B.4.a) (October 1-May 31)					
Observe during first hour of discharge (B.4.a)					
All drainage areas (B.4.a)					
Observe stored or contained storm water at time of discharge (B.4.a)					
Preceded by three working days dry weather (B.4.c)					
Document discharge characteristics (B.4.c)					
Sampling and Analysis					
Samples to be collected during first hour of discharge (B.5.a)					
Sample from first storm of the wet season (B.5.a)					
Sample from one additional storm during wet season (B.5.a)					
Samples collected from all discharge locations (B.5.a)					
Sampling of contained storm water at time of discharge (B.5.a)					
Sampling preceded by at least three working days without storm water discharges (B.5.b)					
Sampling for pH, TSS, SC, TOC or O&G (B.5.c.i)					
Sampling for toxic chemicals and other pollutants likely present in storm water discharges in significant quantities (B.5.c.ii)					
Other analytical parameters listed in Table D (B.5.c.iii)					
Storm Water Effluent Limitation Guidelines parameters (B.6)					
Description of sampling locations (B.7)					
Description of sampling methods (B.10)					
Identification of analytical methods and method detection limits (B.10.b)					
Retention of all records for at least five years (B.13)					
Annual Report to be submitted by July 1 each year (B.14)					

General Comments: ____

____

____

____

Items in parentheses refer to specific sections of the General Permit

Reviewer ________________________

STORM WATER POLLUTION PREVENTION PLAN and MONITORING PROGRAM REVIEW SHEET

GENERAL INDUSTRIAL ACTIVITIES STORM WATER PERMIT
WATER QUALITY ORDER NO. CAS000001

FACILITY NAME: CG Roxane Olancha Facility
WDID# ____________________ REVIEW DATE____________________

FACILITY CONTACT		CONSULTANT CONTACT	
Name		Name	
Title		Title	
Company		Company	
Street Address		Street Address	
City, State		City, State	
Zip		Zip	

Indication of WDID#	YES	NO

STORM WATER POLLUTION PREVENTION PLAN		Not Applicable	Included	Not Included	Incomplete	Comments
Signed Certification	**(C.9 and C.10)**					
Pollution Prevention Team	**(A.3.a)**					
Existing Facility Plans	**(A.3.b)**					
Facility Site Map(s)						
Facility boundaries	(A.4.a)					
Drainage areas	(A.4.a)					
Direction of flow	(A.4.a)					
On-site water bodies	(A.4.a)					
Areas of soil erosion	(A.4.a)					
Nearby water bodies	(A.4.a)					
Municipal storm drain inlets	(A.4.a)					
Points of discharge	(A.4.b)					
Structural control measures	(A.4.b)					
Impervious areas (paved areas, buildings, covered areas, roofed areas)	(A.4.c)					
Location of directly exposed materials	(A.4.d)					
Locations of significant spills and leaks	(A.4.d)					
Storage areas / Storage tanks	(A.4.e)					
Shipping and receiving areas	(A.4.e)					
Fueling areas	(A.4.e)					
Vehicle and equipment storage and maintenance	(A.4.e)					
Material handling / Material processing	(A.4.e)					
Waste treatment / Waste disposal	(A.4.e)					
Dust generation / Particulate generation	(A.4.e)					
Cleaning areas / Rinsing areas	(A.4.e)					
Other areas of industrial activities	(A.4.e)					

STORM WATER POLLUTION PREVENTION PLAN		Not Applicable	Included	Not Included	Incomplete	Comments
List of Significant Materials For each material listed:	**(A.5)**					
Storage location						
Receiving and shipping location						
Handling location						
Quantity						
Frequency						
Description of Potential Pollution Sources	**(A.6)**					
Industrial processes	(A.6.a.i)					
Material handling and storage areas	(A.6.a.ii)					
Dust and particulate generating activities	(A.6.a.iii)					
Significant spills and leaks	(A.6.a.iv)					
Non-storm water discharges	(A.6.a.v)					
Soil erosion	(A.6.a.vi)					
Assessment of Potential Pollutant Sources	**(A.7)**					
Areas likely to be sources of pollutants	(A.7.a.i)					
Pollutants likely to be present	(A.7.a.ii)					
Storm Water Best Management Practices	**(A.8)**					
Existing BMPs						
Existing BMPs to be revised and/or implemented						
New BMPs to be implemented						
Non-structural BMPs	**(A.8.a)**					
Good housekeeping	(A.8.a.i)					
Preventative maintenance	(A.8.a.ii)					
Spill response	(A.8.a.iii)					
Material handling and storage	(A.8.a.iv)					
Employee training	(A.8.a.v)					
Waste handling / Waste recycling	(A.8.a.vi)					
Recordkeeping and internal reporting	(A.8.a.vii)					
Erosion control and site stabilization	(A.8.a.viii)					
Inspections	(A.8.a.ix)					
Quality assurance	(A.8.a.x)					
Structural BMPs	**(A.8.b)**					
Overhead coverage	(A.8.b.i)					
Retention ponds	(A.8.b.ii)					
Control devices	(A.8.b.iii)					
Secondary containment structures	(A.8.b.iv)					
Treatment	(A.8.b.v)					
Annual Comprehensive Site Compliance Evaluation						
Review of visual observations, inspections, and sampling analysis	(A.9.a)					
Visual inspection of potential pollution sources	(A.9.b)					
Review and evaluation of BMPs	(A.9.c)					
Evaluation report	(A.9.d)					

MONITORING PROGRAM	Not Applicable	Included	Not Included	Incomplete	Comments
Quarterly Non-Storm Water Discharge Visual Observations (B.3)					
Observations to be conducted (B.3.c) (Jan-March, April-June, July-September, October-December)					
All drainage areas (B.3.a)					
Look for presence of unauthorized NSWDs (B.3.a)					
Observe authorized NSWDs (B.3.b)					
Maintain observation records (B.3.d)					
Storm Water Discharge Visual Observations (B.4)					
Once per month during wet season (B.4.a) (October 1-May 31)					
Observe during first hour of discharge (B.4.a)					
All drainage areas (B.4.a)					
Observe stored or contained storm water at time of discharge (B.4.a)					
Preceded by three working days dry weather (B.4.c)					
Document discharge characteristics (B.4.c)					
Sampling and Analysis					
Samples to be collected during first hour of discharge (B.5.a)					
Sample from first storm of the wet season (B.5.a)					
Sample from one additional storm during wet season (B.5.a)					
Samples collected from all discharge locations (B.5.a)					
Sampling of contained storm water at time of discharge (B.5.a)					
Sampling preceded by at least three working days without storm water discharges (B.5.b)					
Sampling for pH, TSS, SC, TOC or O&G (B.5.c.i)					
Sampling for toxic chemicals and other pollutants likely present in storm water discharges in significant quantities (B.5.c.ii)					
Other analytical parameters listed in Table D (B.5.c.iii)					
Storm Water Effluent Limitation Guidelines parameters (B.6)					
Description of sampling locations (B.7)					
Description of sampling methods (B.10)					
Identification of analytical methods and method detection limits (B.10.b)					
Retention of all records for at least five years (B.13)					
Annual Report to be submitted by July 1 each year (B.14)					

General Comments: ____

Attachment W

Worksheets

1. Activities Assessment Checklist
2. Material Inventory (list of all materials)
3. Material Inventory (description of significant materials)
4. Spills Inventory
5. Non-Storm Water Discharge Assessment and Certification
6. Non-Storm Water Discharge Assessment and Failure to Certify Notification
7. Checklist for Consideration of Minimum BMPs
8. Assessment of Potential Pollution Sources and Corresponding BMPs

WORKSHEET #1 ACTIVITIES ASSESSMENT CHECKLIST			
Name of Reviewer:	Date:		
ACTIVITIES - Check each activity present at site	EFFECTIVENESS		
	HIGH	MOD.	LOW
☐ Non-storm water discharges to drains. Describe BMPs in place:			
☐ Spill Prevention, Control and Cleanup. Describe BMPs in place:			
☐ Vehicle and equipment fueling. Describe BMPs in place:			
☐ Vehicle and equipment washing and steam cleaning. Describe BMPs in place:			
☐ Vehicle and equipment maintenance and repair. Describe BMPs in place:			
☐ Outdoors loading/unloading of liquid materials. Describe BMPs in place:			
☐ Outdoor container storage of liquids. Describe BMPs in place:			
☐ Outdoor process equipment operations and maintenance. Describe BMPs in place:			
☐ Outdoor storage of raw materials, products and byproducts. Describe BMPs in place:			
☐ Waste handling and disposal. Describe BMPs in place:			
☐ Contaminated or erodible surface areas. Describe BMPs in place:			
☐ Building and grounds maintenance. Describe BMPs in place:			
☐ Building repair, remodeling, and construction. Describe BMPs in place:			
☐ Parking/Storage Area Maintenance. Describe BMPs in place:			

MATERIAL INVENTORY

(Adopt from EPA, 1992)

Worksheet No. 2
Completed By:
Title:
Date :

Instructions: List all materials used, stored, or produced onsite. Assess and evaluate these materials for their potential to contribute pollutants to storm water runoff. Also complete Worksheet 3 if the material has been exposed during the last three years.

Material	Purpose/Location	Quantity (units)		Quantity Exposed in Last 3 Years *	Likelihood of contact with storm water.	Past significant Spill or Leak **	
		Used	Produced			Yes	No

* **Explain on separate sheet if quantity was more than the "minimum?"**

** **Explain items checked yes on a separate sheet.**

MATERIAL INVENTORY

Worksheet No. 3
Completed By:
Title:
Date :

Instructions: Based on your material inventory, describe the significant materials that were exposed to storm water during the past three years and/or are currently exposed. For the definition of "significant materials" see Appendix B of the manual.

Description of Exposed Significant Material	Period of Exposure	Quantity Exposed (Units)	Location (as indicated on the site map)	Method of Storage or Disposal (e.g., pile, drum, tank	Description of Material Management Practices (e.g., pile covered, drum sealed)

SPILLS INVENTORY

(Adopt from EPA, 1992)

Worksheet No. 4
Completed By:
Title:
Date:

Instructions: Record below all significant spills and significant leaks of toxic or hazardous pollutants that have occurred at the facility in the three years prior to the effective date of the permit.

Definitions: Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities.

1st Year Prior

Date (month/day/year)	Check Box		Location (as indicated on site map)	Description				Response Procedure	Preventive Measures Taken
	Spill	Leak		Type of Material	Quantity	Source, If Known	Reason		

2nd Year Prior

Date (month/day/year)	Check Box		Location (as indicated on site map)	Description				Response Procedure	Preventive Measures Taken
	Spill	Leak		Type of Material	Quantity	Source, If Known	Reason		

3rd Year Prior

Date (month/day/year)	Check Box		Location (as indicated on site map)	Description				Response Procedure	Preventive Measures Taken
	Spill	Leak		Type of Material	Quantity	Source, If Known	Reason		

NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION

(Source: EPA, 1992)

Worksheet No. 5
Completed by: ______________________
Title: ______________________
Date: ______________________

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the Presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

CERTIFICATION

I, ______________________ (responsible corporate official), certify under penalty of law that this document and all attachments were prepared unde my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (type or print)	**B. Area Code and Telephone No.**
C. Signature	**D. Date Signed**

NON-STORM WATER DISCHARGE ASSESSMENT AND FAILURE TO CERTIFY NOTIFICATION

(Source: EPA, 1992)

Worksheet No. 6
Completed by: ____________________
Title: ____________________
Date: ____________________

Directions: If you cannot feasibly test or evaluate an outfall due to one of the following reasons, fill in the table below with the appropriate information and sign this form to certify the accuracy of the included information.

List all outfalls not tested or evaluated, describe any potential sources of non-storm water pollution from listed outfalls, and state the reason(s) why certification is not possible. Use the key from your site map to identify each outfall.

Important Notice: A copy of this notification must be signed and submitted to the RWQCB within 180 days of the effective date of this permit.

Identify Outfall Not Tested/Evaluated	Description of Why Certification Is Infeasible	Description of Potential Sources of Non-Storm Water Pollution

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations, and that such notification has been made to the RWQCB within 180 days of __________ (date permit was issued), the effective date of this permit.

A. Name & Official Title (type or print)	**B. Area Code and Telephone No.**
C. Signature	**D. Date Signed**

WORKSHEET No. 7
CHECKLIST FOR CONSIDERATION OF MINIMUM BMPs

Check which one of the following describe your facility.

Name of Reviewer:	Date:

Yes	No	N/A	
☐	☐	☐	Are outside areas kept neat and clean?
☐	☐	☐	Is the facility orderly and neat?
☐	☐	☐	Is the process debris removed regularly?
☐	☐	☐	Is the area clear of excessive dust from industrial operations?
☐	☐	☐	Is there no evidence of leaks and drips from equipment and machinery?
☐	☐	☐	Are employees regularly informed of the importance of good housekeeping?
☐	☐	☐	Are catch basins, storm conveyance pipes, and storm water treatment facilities cleaned at the appropriate intervals (see Chapter 5)?
☐	☐	☐	Are good housekeeping procedures and reminders posted in appropriate locations?
☐	☐	☐	Are vehicle maintenance activities kept indoors and do not tend to "creep" out the front door of the maintenance shop?
☐	☐	☐	Are containers for chemical substances and for temporary storage of wastes labeled?
☐	☐	☐	Is vehicle and equipment washing done in a designated area so that the wash water can be discharged to the sanitary or process wastewater sewer?
☐	☐	☐	Are regular housekeeping practices carried out?
☐	☐	☐	Is there a spill prevention and response team?
☐	☐	☐	Are appropriate spill containment and cleanup materials kept on-site and in convenient locations?
☐	☐	☐	Are cleanup procedures for spills followed regularly and correctly?
☐	☐	☐	Are used absorbent materials removed and disposed of in a timely manner?
☐	☐	☐	Are personnel regularly trained in the use of spill control materials?
☐	☐	☐	Is exposed piping and process equipment regularly inspected and/or tested to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters?
☐	☐	☐	Are drainage ditches or the areas around the outfall(s) free of erosion?
☐	☐	☐	Are unpaved outdoor areas protected from water or wind erosion?

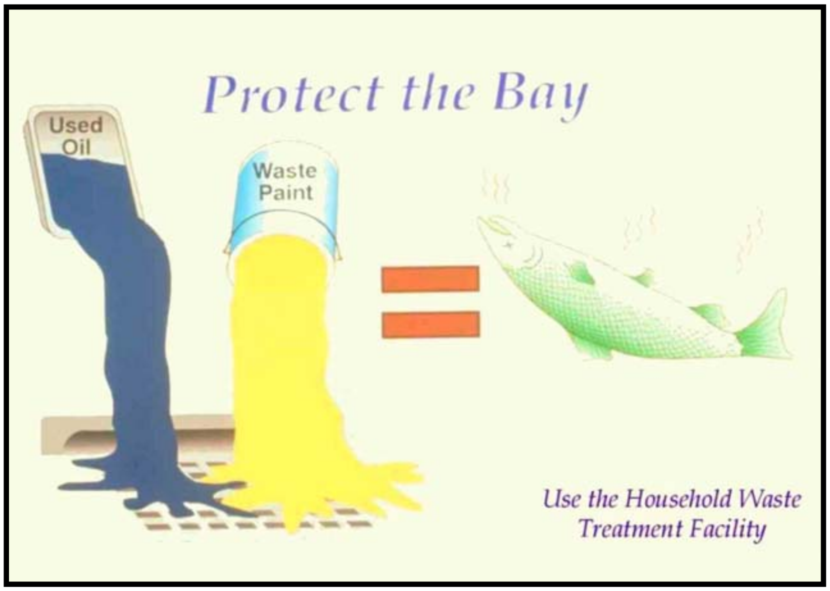
Any items checked "No" require consideration in the selection of BMPs.
N/A = Not Applicable.

WORKSHEET 8
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BMPS

Area	Activity	Pollutant Source	Pollutant	Best Management Practices

Attachment K

BMPs Selected for the Project



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Description

Non-stormwater discharges are those flows that do not consist entirely of stormwater. Some non-stormwater discharges do not include pollutants and may be discharged to the storm drain. These include uncontaminated groundwater and natural springs. There are also some non-stormwater discharges that typically do not contain pollutants and may be discharged to the storm drain with conditions. These include car washing, air conditioner condensate, etc. However there are certain non-stormwater discharges that pose environmental concern. These discharges may originate from illegal dumping or from internal floor drains, appliances, industrial processes, sinks, and toilets that are connected to the nearby storm drainage system. These discharges (which may include: process waste waters, cooling waters, wash waters, and sanitary wastewater) can carry substances such as paint, oil, fuel and other automotive fluids, chemicals and other pollutants into storm drains. They can generally be detected through a combination of detection and elimination. The ultimate goal is to effectively eliminate non-stormwater discharges to the stormwater drainage system through implementation of measures to detect, correct, and enforce against illicit connections and illegal discharges of pollutants on streets and into the storm drain system and creeks.

Targeted Constituents

Sediment	
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	✓
Organics	✓

Approach

Initially the industry must make an assessment of non-stormwater discharges to determine which types must be eliminated or addressed through BMPs. The focus of the following approach is in the elimination of non-stormwater discharges.

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Spill Prevention, Control & Cleanup SC-11

Photo Credit: Geoff Brosseau

Description

Many activities that occur at an industrial or commercial site have the potential to cause accidental or illegal spills. Preparation for accidental or illegal spills, with proper training and reporting systems implemented, can minimize the discharge of pollutants to the environment.

Spills and leaks are one of the largest contributors of stormwater pollutants. Spill prevention and control plans are applicable to any site at which hazardous materials are stored or used. An effective plan should have spill prevention and response procedures that identify potential spill areas, specify material handling procedures, describe spill response procedures, and provide spill clean-up equipment. The plan should take steps to identify and characterize potential spills, eliminate and reduce spill potential, respond to spills when they occur in an effort to prevent pollutants from entering the stormwater drainage system, and train personnel to prevent and control future spills.

Approach

Pollution Prevention

- Develop procedures to prevent/mitigate spills to storm drain systems. Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures.

- Develop a Spill Prevention Control and Countermeasure (SPCC) Plan. The plan should include:

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

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- Description of the facility, owner and address, activities and chemicals present
- Facility map
- Notification and evacuation procedures
- Cleanup instructions
- Identification of responsible departments
- Identify key spill response personnel

■ Recycle, reclaim, or reuse materials whenever possible. This will reduce the amount of process materials that are brought into the facility.

Suggested Protocols (including equipment needs)

Spill Prevention

■ Develop procedures to prevent/mitigate spills to storm drain systems. Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures.

■ If consistent illegal dumping is observed at the facility:

- Post "No Dumping" signs with a phone number for reporting illegal dumping and disposal. Signs should also indicate fines and penalties applicable for illegal dumping.
- Landscaping and beautification efforts may also discourage illegal dumping.
- Bright lighting and/or entrance barriers may also be needed to discourage illegal dumping.

■ Store and contain liquid materials in such a manner that if the tank is ruptured, the contents will not discharge, flow, or be washed into the storm drainage system, surface waters, or groundwater.

■ If the liquid is oil, gas, or other material that separates from and floats on water, install a spill control device (such as a tee section) in the catch basins that collects runoff from the storage tank area.

■ Routine maintenance:

- Place drip pans or absorbent materials beneath all mounted taps, and at all potential drip and spill locations during filling and unloading of tanks. Any collected liquids or soiled absorbent materials must be reused/recycled or properly disposed.
- Store and maintain appropriate spill cleanup materials in a location known to all near the tank storage area; and ensure that employees are familiar with the site's spill control plan and/or proper spill cleanup procedures.
- Sweep and clean the storage area monthly if it is paved, *do not hose down the area to a storm drain.*

- Check tanks (and any containment sumps) daily for leaks and spills. Replace tanks that are leaking, corroded, or otherwise deteriorating with tanks in good condition. Collect all spilled liquids and properly dispose of them.

■ Label all containers according to their contents (e.g., solvent, gasoline).

■ Label hazardous substances regarding the potential hazard (corrosive, radioactive, flammable, explosive, poisonous).

■ Prominently display required labels on transported hazardous and toxic materials (per US DOT regulations).

■ Identify key spill response personnel.

Spill Control and Cleanup Activities

■ Follow the Spill Prevention Control and Countermeasure Plan.

■ Clean up leaks and spills immediately.

■ Place a stockpile of spill cleanup materials where it will be readily accessible (e.g., near storage and maintenance areas).

■ On paved surfaces, clean up spills with as little water as possible. Use a rag for small spills, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to a certified laundry (rags) or disposed of as hazardous waste. Physical methods for the cleanup of dry chemicals include the use of brooms, shovels, sweepers, or plows.

■ Never hose down or bury dry material spills. Sweep up the material and dispose of properly.

■ Chemical cleanups of material can be achieved with the use of adsorbents, gels, and foams. Use adsorbent materials on small spills rather than hosing down the spill. Remove the adsorbent materials promptly and dispose of properly.

■ For larger spills, a private spill cleanup company or Hazmat team may be necessary.

Reporting

■ Report spills that pose an immediate threat to human health or the environment to the Regional Water Quality Control Board.

■ Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hour).

■ Report spills to local agencies, such as the fire department; they can assist in cleanup.

■ Establish a system for tracking incidents. The system should be designed to identify the following:

- Types and quantities (in some cases) of wastes

- Patterns in time of occurrence (time of day/night, month, or year)

  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)

  - Responsible parties

Training

- Educate employees about spill prevention and cleanup.

- Well-trained employees can reduce human errors that lead to accidental releases or spills:

  - The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur.

  - Employees should be familiar with the Spill Prevention Control and Countermeasure Plan.

- Employees should be educated about aboveground storage tank requirements. Employees responsible for aboveground storage tanks and liquid transfers should be thoroughly familiar with the Spill Prevention Control and Countermeasure Plan and the plan should be readily available.

- Train employees to recognize and report illegal dumping incidents.

Other Considerations (Limitations and Regulations)

- A Spill Prevention Control and Countermeasure Plan (SPCC) is required for facilities that are subject to the oil pollution regulations specified in Part 112 of Title 40 of the Code of Federal Regulations or if they have a storage capacity of 10,000 gallons or more of petroleum. (Health and Safety Code 6.67)

- State regulations also exist for storage of hazardous materials (Health & Safety Code Chapter 6.95), including the preparation of area and business plans for emergency response to the releases or threatened releases.

- Consider requiring smaller secondary containment areas (less than 200 sq. ft.) to be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.

Requirements

Costs (including capital and operation & maintenance)

- Will vary depending on the size of the facility and the necessary controls.

- Prevention of leaks and spills is inexpensive. Treatment and/or disposal of contaminated soil or water can be quite expensive.

Maintenance (including administrative and staffing)

- This BMP has no major administrative or staffing requirements. However, extra time is needed to properly handle and dispose of spills, which results in increased labor costs.

Supplemental Information

Further Detail of the BMP

Reporting

Record keeping and internal reporting represent good operating practices because they can increase the efficiency of the facility and the effectiveness of BMPs. A good record keeping system helps the facility minimize incident recurrence, correctly respond with appropriate cleanup activities, and comply with legal requirements. A record keeping and reporting system should be set up for documenting spills, leaks, and other discharges, including discharges of hazardous substances in reportable quantities. Incident records describe the quality and quantity of non-stormwater discharges to the storm sewer. These records should contain the following information:

- Date and time of the incident
- Weather conditions
- Duration of the spill/leak/discharge
- Cause of the spill/leak/discharge
- Response procedures implemented
- Persons notified
- Environmental problems associated with the spill/leak/discharge

Separate record keeping systems should be established to document housekeeping and preventive maintenance inspections, and training activities. All housekeeping and preventive maintenance inspections should be documented. Inspection documentation should contain the following information:

- The date and time the inspection was performed
- Name of the inspector
- Items inspected
- Problems noted
- Corrective action required
- Date corrective action was taken

Other means to document and record inspection results are field notes, timed and dated photographs, videotapes, and drawings and maps.

Aboveground Tank Leak and Spill Control

Accidental releases of materials from aboveground liquid storage tanks present the potential for contaminating stormwater with many different pollutants. Materials spilled, leaked, or lost from tanks may accumulate in soils or on impervious surfaces and be carried away by stormwater runoff.

The most common causes of unintentional releases are:

- Installation problems
- Failure of piping systems (pipes, pumps, flanges, couplings, hoses, and valves)
- External corrosion and structural failure
- Spills and overfills due to operator error
- Leaks during pumping of liquids or gases from truck or rail car to a storage tank or vice versa

Storage of reactive, ignitable, or flammable liquids should comply with the Uniform Fire Code and the National Electric Code. Practices listed below should be employed to enhance the code requirements:

- Tanks should be placed in a designated area.
- Tanks located in areas where firearms are discharged should be encapsulated in concrete or the equivalent.
- Designated areas should be impervious and paved with Portland cement concrete, free of cracks and gaps, in order to contain leaks and spills.
- Liquid materials should be stored in UL approved double walled tanks or surrounded by a curb or dike to provide the volume to contain 10 percent of the volume of all of the containers or 110 percent of the volume of the largest container, whichever is greater. The area inside the curb should slope to a drain.
- For used oil or dangerous waste, a dead-end sump should be installed in the drain.
- All other liquids should be drained to the sanitary sewer if available. The drain must have a positive control such as a lock, valve, or plug to prevent release of contaminated liquids.
- Accumulated stormwater in petroleum storage areas should be passed through an oil/water separator.

Maintenance is critical to preventing leaks and spills. Conduct routine inspections and:

- Check for external corrosion and structural failure.
- Check for spills and overfills due to operator error.
- Check for failure of piping system (pipes, pumps, flanger, coupling, hoses, and valves).
- Check for leaks or spills during pumping of liquids or gases from truck or rail car to a storage facility or vice versa.

- Visually inspect new tank or container installation for loose fittings, poor welding, and improper or poorly fitted gaskets.
- Inspect tank foundations, connections, coatings, and tank walls and piping system. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank or container system.
- Frequently relocate accumulated stormwater during the wet season.
- Periodically conduct integrity testing by a qualified professional.

Vehicle Leak and Spill Control

Major spills on roadways and other public areas are generally handled by highly trained Hazmat teams from local fire departments or environmental health departments. The measures listed below pertain to leaks and smaller spills at vehicle maintenance shops.

In addition to implementing the spill prevention, control, and clean up practices above, use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- Perform all vehicle fluid removal or changing inside or under cover to prevent the run-on of stormwater and the runoff of spills.
- Regularly inspect vehicles and equipment for leaks, and repair immediately.
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Immediately drain all fluids from wrecked vehicles.
- Store wrecked vehicles or damaged equipment under cover.
- Place drip pans or absorbent materials under heavy equipment when not in use.
- Use adsorbent materials on small spills rather than hosing down the spill.
- Remove the adsorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- Oil filters disposed of in trashcans or dumpsters can leak oil and contaminate stormwater. Place the oil filter in a funnel over a waste oil recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask your oil supplier or recycler about recycling oil filters.

- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- Design the fueling area to prevent the run-on of stormwater and the runoff of spills:
  - Cover fueling area if possible.
  - Use a perimeter drain or slope pavement inward with drainage to a sump.
  - Pave fueling area with concrete rather than asphalt.
- If dead-end sump is not used to collect spills, install an oil/water separator.
- Install vapor recovery nozzles to help control drips as well as air pollution.
- Discourage "topping-off" of fuel tanks.
- Use secondary containment when transferring fuel from the tank truck to the fuel tank.
- Use adsorbent materials on small spills and general cleaning rather than hosing down the area. Remove the adsorbent materials promptly.
- Carry out all Federal and State requirements regarding underground storage tanks, or install above ground tanks.
- Do not use mobile fueling of mobile industrial equipment around the facility; rather, transport the equipment to designated fueling areas.
- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Train employees in proper fueling and cleanup procedures.

Industrial Spill Prevention Response

For the purposes of developing a spill prevention and response program to meet the stormwater regulations, facility managers should use information provided in this fact sheet and the spill prevention/response portions of the fact sheets in this handbook, for specific activities. The program should:

- Integrate with existing emergency response/hazardous materials programs (e.g., Fire Department)
- Develop procedures to prevent/mitigate spills to storm drain systems
- Identify responsible departments
- Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures
- Address spills at municipal facilities, as well as public areas

- Provide training concerning spill prevention, response and cleanup to all appropriate personnel

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Stormwater Managers Resource Center http://www.stormwatercenter.net/

Outdoor Loading/Unloading SC-30

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Description

The loading/unloading of materials usually takes place outside on docks or terminals; therefore, materials spilled, leaked, or lost during loading/unloading may collect in the soil or on other surfaces and have the potential to be carried away by stormwater runoff or when the area is cleaned. Additionally, rainfall may wash pollutants from machinery used to unload or move materials. Implementation of the following protocols will prevent or reduce the discharge of pollutants to stormwater from outdoor loading/unloading of materials.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Keep accurate maintenance logs to evaluate materials removed and improvements made.
- Park tank trucks or delivery vehicles in designated areas so that spills or leaks can be contained.
- Limit exposure of material to rainfall whenever possible.
- Prevent stormwater run-on.
- Check equipment regularly for leaks.

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Suggested Protocols

Loading and Unloading – General Guidelines

- Develop an operations plan that describes procedures for loading and/or unloading.
- Conduct loading and unloading in dry weather if possible.
- Cover designated loading/unloading areas to reduce exposure of materials to rain.
- Consider placing a seal or door skirt between delivery vehicles and building to prevent exposure to rain.
- Design loading/unloading area to prevent stormwater run-on, which would include grading or berming the area, and position roof downspouts so they direct stormwater away from the loading/unloading areas.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
- Load/unload only at designated loading areas.
- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections. Several drip pans should be stored in a covered location near the liquid transfer area so that they are always available, yet protected from precipitation when not in use. Drip pans can be made specifically for railroad tracks. Drip pans must be cleaned periodically, and drip collected materials must be disposed of properly.
- Pave loading areas with concrete instead of asphalt.
- Avoid placing storm drains in the area.
- Grade and/or berm the loading/unloading area to a drain that is connected to a deadend.

Inspection

- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.

Training

- Train employees (e.g., fork lift operators) and contractors on proper spill containment and cleanup.
- Have employees trained in spill containment and cleanup present during loading/unloading.
- Train employees in proper handling techniques during liquid transfers to avoid spills.
- Make sure forklift operators are properly trained on loading and unloading procedures.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Contain leaks during transfer.
- Store and maintain appropriate spill cleanup materials in a location that is readily accessible and known to all and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures.
- Have an emergency spill cleanup plan readily available.
- Use drip pans or comparable devices when transferring oils, solvents, and paints.

Other Considerations (Limitations and Regulations)

- Space and time limitations may preclude all transfers from being performed indoors or under cover.
- It may not be possible to conduct transfers only during dry weather.

Requirements

Costs

Costs should be low except when covering a large loading/unloading area.

Maintenance

- Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
- Check loading and unloading equipment regularly for leaks.
- Conduct regular broom dry-sweeping of area.

Supplemental Information

Further Detail of the BMP

Special Circumstances for Indoor Loading/Unloading of Materials

Loading or unloading of liquids should occur in the manufacturing building so that any spills that are not completely retained can be discharged to the sanitary sewer, treatment plant, or treated in a manner consistent with local sewer authorities and permit requirements.

- For loading and unloading tank trucks to above and below ground storage tanks, the following procedures should be used:
  - The area where the transfer takes place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - The transfer area should be designed to prevent run-on of stormwater from adjacent areas. Sloping the pad and using a curb, like a speed bump, around the uphill side of the transfer area should reduce run-on.

- The transfer area should be designed to prevent runoff of spilled liquids from the area. Sloping the area to a drain should prevent runoff. The drain should be connected to a dead-end sump or to the sanitary sewer. A positive control valve should be installed on the drain.

■ For transfer from rail cars to storage tanks that must occur outside, use the following procedures:

  - Drip pans should be placed at locations where spillage may occur, such as hose connections, hose reels, and filler nozzles. Use drip pans when making and breaking connections.

  - Drip pan systems should be installed between the rails to collect spillage from tank cars.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Outdoor Liquid Container Storage SC-31

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Targeted Constituents

Sediment	
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Description

Accidental releases of materials from above ground liquid storage tanks, drums, and dumpsters present the potential for contaminating stormwaters with many different pollutants. Tanks may store many potential stormwater runoff pollutants, such as gasoline, aviation gas, diesel fuel, kerosene, oils, greases, lubricants and other distilled, blended and refined products derived from crude petroleum. Materials spilled, leaked, or lost from storage tanks may accumulate in soils or on other surfaces and be carried away by rainfall runoff. These source controls apply to containers located outside of a building used to temporarily store liquid materials and include installing safeguards against accidental releases, installing secondary containment, conducting regular inspections, and training employees in standard operating procedures and spill cleanup techniques.

Approach

Pollution Prevention

- Educate employees about pollution prevention measures and goals.
- Keep an accurate, up-to-date inventory of the materials delivered and stored on-site.
- Try to keep chemicals in their original containers, and keep them well labeled.

Suggested Protocols

General

- Develop an operations plan that describes procedures for loading and/or unloading. Refer to SC-30 – Outdoor

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Loading/Unloading of Materials for more detailed BMP information pertaining to loading and unloading of liquids.

- Protect materials from rainfall, run-on, runoff, and wind dispersal:
  - Cover the storage area with a roof.
  - Minimize stormwater run-on by enclosing the area or building a berm around it.
  - Use a "doghouse" structure for storage of liquid containers.
  - Use covered dumpsters for waste product containers.
- Employ safeguards against accidental releases:
  - Provide overflow protection devices to warn operator or automatic shut down transfer pumps.
  - Provide protection guards (bollards) around tanks and piping to prevent damage from a vehicle or forklift.
  - Provide clear tagging or labeling, and restrict access to valves to reduce human error.
- Berm or surround tank or container with secondary containment system, including dikes, liners, vaults, or double walled tanks.
- Be aware and ready to address the fact that some municipalities require secondary containment areas to be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.
- Contact the appropriate regulatory agency regarding environmental compliance for facilities with "spill ponds" designed to intercept, treat, and/or divert spills.
- Have registered and specifically trained professional engineers identify and correct potential problems such as loose fittings, poor welding, and improper or poorly fitted gaskets for newly installed tank systems.

Storage Areas

- Provide storage tank piping located below product level with a shut-off valve at the tank; ideally this valve should be an automatic shear valve with the shut-off located inside the tank.
- Provide barriers such as posts or guardrails, where tanks are exposed, to prevent collision damage with vehicles.
- Provide secure storage to prevent vandalism-caused contamination.
- Place tight-fitting lids on all containers.
- Enclose or cover the containers where they are stored.

- Raise the containers off the ground by use of pallet or similar method, with provisions for spill control.

- Contain the material in such a manner that if the container leaks or spills, the contents will not discharge, flow, or be washed into the storm drainage system, surface waters or groundwater.

- Place drip pans or absorbent materials beneath all mounted container taps, and at all potential drip and spill locations during filling and unloading of containers. Any collected liquids or soiled absorbent materials must be reused/recycled or properly disposed.

- Ensure that any underground or aboveground storage tanks are designed and managed in accordance with applicable regulations, identified as a potential pollution source, and have secondary containment such as a berm or dike with an impervious surface.

Inspection

- Provide regular inspections:

  - Inspect storage areas regularly for leaks or spills.

  - Conduct routine inspections and check for external corrosion of material containers. Also check for structural failure, spills and overfills due to operator error, failure of piping system.

  - Check for leaks or spills during pumping of liquids or gases from truck or rail car to a storage facility or vice versa.

  - Visually inspect new tank or container installations for loose fittings, poor welding, and improper or poorly fitted gaskets.

  - Inspect tank foundations, connections, coatings, and tank walls and piping system. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank or container system.

  - Replace containers that are leaking, corroded, or otherwise deteriorating with ones in good condition. If the liquid chemicals are corrosive, containers made of compatible materials must be used instead of metal drums.

  - New or secondary containers must be labeled with the product name and hazards.

Training

- Train employee (e.g., fork lift operators) and contractors in proper spill containment and cleanup. The employee should have the tools and knowledge to immediately begin cleaning up a spill if one should occur.

- Train employees in proper storage measures.

- Use a training log or similar method to document training.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Have an emergency plan, equipment, and trained personnel ready at all times to deal immediately with major spills.
- Collect all spilled liquids and properly dispose of them.
- Have employees trained in emergency spill cleanup procedures present when dangerous waste, liquid chemicals, or other wastes are delivered.
- Prevent operator errors by using engineering safeguards and thus reducing accidental releases of pollutants.
- Store and maintain appropriate spill cleanup materials in a location near the tank storage area and known to all.

Other Considerations

- Storage sheds often must meet building and fire code requirements.
- The local fire district must be consulted for limitations on clearance of roof covers over containers used to store flammable materials.
- All specific standards set by Federal and State laws concerning the storage of oil and hazardous materials must be met.
- Storage of reactive, ignitable, or flammable liquids should comply with the Uniform Fire Code and the National Electric Code.
- Storage of oil and hazardous materials must meet specific Federal and State standards including:
  - Spill Prevention Control and Countermeasure Plan (SPCC) Plan
  - Secondary containment
  - Integrity and leak detection monitoring
  - Emergency preparedness plans

Requirements

Costs

Costs will vary depending on the size of the facility and the necessary controls, such as berms or safeguards against accidental controls.

Maintenance

- Conduct weekly inspection.
- Sweep and clean the storage area regularly if it is paved, do not hose down the area to a storm drain.

Supplemental Information

The most common causes of unintentional releases are:

- Installation problems
- Failure of piping systems (pipes, pumps, flanges, couplings, hoses, and valves)
- External corrosion and structural failure
- Spills and overfills due to operator error
- Leaks during pumping of liquids or gases from truck or rail car to a storage tank or vice versa

Further Detail of the BMP

Aboveground Tank Leak and Spill Control

Storage of reactive, ignitable, or flammable liquids should comply with the Uniform Fire Code and the National Electric Code. Practices listed below should be employed to enhance the code requirements:

- Tanks should be placed in a designated area.
- Tanks located in areas where firearms are discharged should be encapsulated in concrete or the equivalent.
- Designated areas should be paved with Portland cement concrete, free of cracks and gaps, and impervious in order to contain leaks and spills,
- Liquid materials should be stored in UL approved double walled tanks or surrounded by a curb or dike to provide the volume to contain 10% of the volume of all of the containers or 110% of the volume of the largest container, whichever is greater. The area inside the curb should slope to a drain.
- For used oil or dangerous waste, a dead-end sump should be installed in the drain.
- All other liquids should be drained to the sanitary sewer if available. The drain must have a positive control such as a lock, valve, or plug to prevent release of contaminated liquids.
- Accumulated stormwater in petroleum storage areas should be passed through an oil/water separator

Maintenance is critical to preventing leaks and spills. Conduct routine weekly inspections and:

- Check for external corrosion and structural failure.
- Check for spills and overfills due to operator error.
- Check for failure of piping system (pipes, pumps, flanger, coupling, hoses, and valves).
- Check for leaks or spills during pumping of liquids or gases from truck or rail car to a storage facility or vice versa

- Inspect new tank or container installation visually for loose fittings, poor welding, and improper or poorly fitted gaskets.

- Inspect tank foundations, connections, coatings, and tank walls and piping system. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank or container system.

- Frequently release accumulated stormwater during the wet season.

- Have periodic integrity testing conducted by a qualified professional.

Container Management

- To limit the possibility of stormwater pollution, containers used to store dangerous waste or other liquids should be kept inside the building unless this is impractical due to site constraints. If the containers are placed outside, the following procedures should be employed:

  - Dumpsters used to store items awaiting transfer to a landfill should be placed in a lean-to structure or otherwise covered. Dumpsters shall be kept in good condition without corrosion or leaky seams.

  - Garbage dumpsters shall be replaced if they are deteriorating to the point where leakage is occurring. Dumpsters should be kept undercover to prevent the entry of stormwater. Employees should be made aware of the importance of keeping the dumpsters covered and free from leaks.

  - Waste container drums should be kept in an area such as a service bay. If drums are kept outside, they must be stored in a lean-to type structure, shed or walk-in container to keep rainfall from reaching the drums.

Dikes

One of the best protective measures against contamination of stormwater is diking. Containment dikes are berms or retaining walls that are designed to hold spills. Diking is an effective pollution prevention measure for above ground storage tanks and railcar or tank truck loading and unloading areas. The dike surrounds the area of concern and holds the spill, keeping spill materials separated from the stormwater side of the dike area. Diking can be used in any industrial or municipal facility, but it is most commonly used for controlling large spills or releases from liquid storage areas and liquid transfer areas.

- For single-wall tanks, containment dikes should be large enough to hold the contents of the storage tank for the facility plus rain water.

- For trucks, diked areas should be capable of holding an amount equal to the volume of the tank truck compartment. Diked construction material should be strong enough to safely hold spilled materials.

- Dike materials can consist of earth, concrete, synthetic materials, metal, or other impervious materials.

- Strong acids or bases may react with metal containers, concrete, and some plastics.

- Where strong acids or bases or stored, alternative dike materials should be considered. More active organic chemicals may need certain special liners for dikes.

- Dikes may also be designed with impermeable materials to increase containment capabilities.

- Dikes should be inspected during or after significant storms or spills to check for washouts or overflows.

- Regular checks of containment dikes to insure the dikes are capable of holding spills should be conducted.

- Inability of a structure to retain stormwater, dike erosion, soggy areas, or changes in vegetation indicate problems with dike structures. Damaged areas should be patched and stabilized immediately.

- Earthen dikes may require special maintenance of vegetation such as mulching and irrigation.

Curbing
Curbing is a barrier that surrounds an area of concern. Curbing is similar to containment diking in the way that it prevents spills and leaks from being released into the environment. Curbing is usually small scaled and does not contain large spills like diking. Curbing is common at many facilities in small areas where handling and transfer of liquid materials occur. Curbing can redirect contaminated stormwater away from the storage area. It is useful in areas where liquid materials are transferred from one container to another. Asphalt is a common material used for curbing; however, curbing materials can include earth, concrete, synthetic materials, metal, or other impenetrable materials.

- Spilled materials should be removed immediately from curbed areas to allow space for future spills.

- Curbs should have manually-controlled pump systems rather than common drainage systems for collection of spilled materials.

- The curbed area should be inspected regularly to clear clogging debris.

- Maintenance should also be conducted frequently to prevent overflow of any spilled materials as curbed areas are designed only for smaller spills.

- Curbing has the following advantages:

  - Excellent run-on control

  - Inexpensive

  - Ease of installment

  - Provides option to recycle materials spilled in curb areas

  - Common industry practice

Examples

The "doghouse" design has been used to store small liquid containers. The roof and flooring design prevent contact with direct rain or runoff. The doghouse has two solid structural walls and two canvas covered walls. The flooring is wire mesh about secondary containment. The unit has been used successfully at Lockheed Missile and Space Company in Sunnyvale.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Description

Improper storage and handling of solid wastes can allow toxic compounds, oils and greases, heavy metals, nutrients, suspended solids, and other pollutants to enter stormwater runoff. The discharge of pollutants to stormwater from waste handling and disposal can be prevented and reduced by tracking waste generation, storage, and disposal; reducing waste generation and disposal through source reduction, reuse, and recycling; and preventing run-on and runoff.

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	✓
Organics	✓

Approach

Pollution Prevention

- Accomplish reduction in the amount of waste generated using the following source controls:
  - Production planning and sequencing
  - Process or equipment modification
  - Raw material substitution or elimination
  - Loss prevention and housekeeping
  - Waste segregation and separation
  - Close loop recycling
- Establish a material tracking system to increase awareness about material usage. This may reduce spills and minimize contamination, thus reducing the amount of waste produced.
- Recycle materials whenever possible.

Suggested Protocols

General

- Cover storage containers with leak proof lids or some other means. If waste is not in containers, cover all waste piles (plastic tarps are acceptable coverage) and prevent stormwater run-on and runoff with a berm. The waste containers or piles must be covered except when in use.

- Use drip pans or absorbent materials whenever grease containers are emptied by vacuum trucks or other means. Grease cannot be left on the ground. Collected grease must be properly disposed of as garbage.

- Check storage containers weekly for leaks and to ensure that lids are on tightly. Replace any that are leaking, corroded, or otherwise deteriorating.

- Sweep and clean the storage area regularly. If it is paved, do not hose down the area to a storm drain.

- Dispose of rinse and wash water from cleaning waste containers into a sanitary sewer if allowed by the local sewer authority. Do not discharge wash water to the street or storm drain.

- Transfer waste from damaged containers into safe containers.

- Take special care when loading or unloading wastes to minimize losses. Loading systems can be used to minimize spills and fugitive emission losses such as dust or mist. Vacuum transfer systems can minimize waste loss.

Controlling Litter

- Post "No Littering" signs and enforce anti-litter laws.

- Provide a sufficient number of litter receptacles for the facility.

- Clean out and cover litter receptacles frequently to prevent spillage.

Waste Collection

- Keep waste collection areas clean.

- Inspect solid waste containers for structural damage regularly. Repair or replace damaged containers as necessary.

- Secure solid waste containers; containers must be closed tightly when not in use.

- Do not fill waste containers with washout water or any other liquid.

- Ensure that only appropriate solid wastes are added to the solid waste container. Certain wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, etc., may not be disposed of in solid waste containers (see chemical/ hazardous waste collection section below).

- Do not mix wastes; this can cause chemical reactions, make recycling impossible, and complicate disposal.

Good Housekeeping

- Use all of the product before disposing of the container.
- Keep the waste management area clean at all times by sweeping and cleaning up spills immediately.
- Use dry methods when possible (e.g., sweeping, use of absorbents) when cleaning around restaurant/food handling dumpster areas. If water must be used after sweeping/using absorbents, collect water and discharge through grease interceptor to the sewer.

Chemical/Hazardous Wastes

- Select designated hazardous waste collection areas on-site.
- Store hazardous materials and wastes in covered containers and protect them from vandalism.
- Place hazardous waste containers in secondary containment.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- Stencil or demarcate storm drains on the facility's property with prohibitive message regarding waste disposal.

Run-on/Runoff Prevention

- Prevent stormwater run-on from entering the waste management area by enclosing the area or building a berm around the area.
- Prevent waste materials from directly contacting rain.
- Cover waste piles with temporary covering material such as reinforced tarpaulin, polyethylene, polyurethane, polypropyleneor hypalon.
- Cover the area with a permanent roof if feasible.
- Cover dumpsters to prevent rain from washing waste out of holes or cracks in the bottom of the dumpster.
- Move the activity indoor after ensuring all safety concerns such as fire hazard and ventilation are addressed.

Inspection

- Inspect and replace faulty pumps or hoses regularly to minimize the potential of releases and spills.
- Check waste management areas for leaking containers or spills.

- Repair leaking equipment including valves, lines, seals, or pumps promptly.

Training

- Train staff in pollution prevention measures and proper disposal methods.
- Train employees and contractors in proper spill containment and cleanup. The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Train employees and subcontractors in proper hazardous waste management.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Have an emergency plan, equipment and trained personnel ready at all times to deal immediately with major spills
- Collect all spilled liquids and properly dispose of them.
- Store and maintain appropriate spill cleanup materials in a location known to all near the designated wash area.
- Ensure that vehicles transporting waste have spill prevention equipment that can prevent spills during transport. Spill prevention equipment includes:
  - Vehicles equipped with baffles for liquid waste
  - Trucks with sealed gates and spill guards for solid waste

Other Considerations (Limitations and Regulations)

Hazardous waste cannot be reused or recycled; it must be disposed of by a licensed hazardous waste hauler.

Requirements

Costs

Capital and O&M costs for these programs will vary substantially depending on the size of the facility and the types of waste handled. Costs should be low if there is an inventory program in place.

Maintenance

- None except for maintaining equipment for material tracking program.

Supplemental Information

Further Detail of the BMP

Land Treatment System

Minimize runoff of polluted stormwater from land application by:

- Choosing a site where slopes are under 6%, the soil is permeable, there is a low water table, it is located away from wetlands or marshes, and there is a closed drainage system

- Avoiding application of waste to the site when it is raining or when the ground is saturated with water
- Growing vegetation on land disposal areas to stabilize soils and reduce the volume of surface water runoff from the site
- Maintaining adequate barriers between the land application site and the receiving waters (planted strips are particularly good)
- Using erosion control techniques such as mulching and matting, filter fences, straw bales, diversion terracing, and sediment basins
- Performing routine maintenance to ensure the erosion control or site stabilization measures are working

Examples
The port of Long Beach has a state-of-the-art database for identifying potential pollutant sources, documenting facility management practices, and tracking pollutants.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

Solid Waste Container Best Management Practices – Fact Sheet On-Line Resources – Environmental Health and Safety. Harvard University. 2002.

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

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- Encourage use of Integrated Pest Management techniques for pest control.
- Encourage proper onsite recycling of yard trimmings.
- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.
- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.
- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.
- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.
- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.
- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures when soils are exposed.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.
- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.
- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Use the minimum amount needed for the job.
- Calibrate fertilizer distributors to avoid excessive application.
- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.
- Apply pesticides only when wind speeds are low.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Dispose of empty pesticide containers according to the instructions on the container label.

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.

- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training

- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.

- Train employees and contractors in proper techniques for spill containment and cleanup.

- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.

- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.

- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.

- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.

- Clean up spills immediately.

Other Considerations

Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements

Costs

- Cost will vary depending on the type and size of facility.

- Overall costs should be low in comparison to other BMPs.

Maintenance

Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, poly-phosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

Description

Parking lots and storage areas can contribute a number of substances, such as trash, suspended solids, hydrocarbons, oil and grease, and heavy metals that can enter receiving waters through stormwater runoff or non-stormwater discharges. The protocols in this fact sheet are intended to prevent or reduce the discharge of pollutants from parking/storage areas and include using good housekeeping practices, following appropriate cleaning BMPs, and training employees.

Approach

The goal of this program is to ensure stormwater pollution prevention practices are considered when conducting activities on or around parking areas and storage areas to reduce potential for pollutant discharge to receiving waters. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Encourage alternative designs and maintenance strategies for impervious parking lots. (See New Development and Redevelopment BMP Handbook)

- Keep accurate maintenance logs to evaluate BMP implementation.

Suggested Protocols

General

- Keep the parking and storage areas clean and orderly. Remove debris in a timely fashion.
- Allow sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices.
- Utilize sand filters or oleophilic collectors for oily waste in low quantities.
- Arrange rooftop drains to prevent drainage directly onto paved surfaces.
- Design lot to include semi-permeable hardscape.
- Discharge soapy water remaining in mop or wash buckets to the sanitary sewer through a sink, toilet, clean-out, or wash area with drain.

Controlling Litter

- Post "No Littering" signs and enforce anti-litter laws.
- Provide an adequate number of litter receptacles.
- Clean out and cover litter receptacles frequently to prevent spillage.
- Provide trash receptacles in parking lots to discourage litter.
- Routinely sweep, shovel, and dispose of litter in the trash.

Surface Cleaning

- Use dry cleaning methods (e.g., sweeping, vacuuming) to prevent the discharge of pollutants into the stormwater conveyance system if possible.
- Establish frequency of public parking lot sweeping based on usage and field observations of waste accumulation.
- Sweep all parking lots at least once before the onset of the wet season.
- Follow the procedures below if water is used to clean surfaces:
  - Block the storm drain or contain runoff.
  - Collect and pump wash water to the sanitary sewer or discharge to a pervious surface. Do not allow wash water to enter storm drains.
  - Dispose of parking lot sweeping debris and dirt at a landfill.
- Follow the procedures below when cleaning heavy oily deposits:
  - Clean oily spots with absorbent materials.
  - Use a screen or filter fabric over inlet, then wash surfaces.

- Do not allow discharges to the storm drain.
- Vacuum/pump discharges to a tank or discharge to sanitary sewer.
- Appropriately dispose of spilled materials and absorbents.

Surface Repair

- Preheat, transfer or load hot bituminous material away from storm drain inlets.
- Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff.
- Cover and seal nearby storm drain inlets where applicable (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal.
- Use only as much water as necessary for dust control, to avoid runoff.
- Catch drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Dispose of collected material and absorbents properly.

Inspection

- Have designated personnel conduct inspections of parking facilities and stormwater conveyance systems associated with parking facilities on a regular basis.
- Inspect cleaning equipment/sweepers for leaks on a regular basis.

Training

- Provide regular training to field employees and/or contractors regarding cleaning of paved areas and proper operation of equipment.
- Train employees and contractors in proper techniques for spill containment and cleanup.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials where it will be readily accessible or at a central location.
- Clean up fluid spills immediately with absorbent rags or material.
- Dispose of spilled material and absorbents properly.

Other Considerations

Limitations related to sweeping activities at large parking facilities may include high equipment costs, the need for sweeper operator training, and the inability of current sweeper technology to remove oil and grease.

SC-43 Parking/Storage Area Maintenance

Requirements

Costs

Cleaning/sweeping costs can be quite large. Construction and maintenance of stormwater structural controls can be quite expensive as well.

Maintenance

- Sweep parking lot regularly to minimize cleaning with water.
- Clean out oil/water/sand separators regularly, especially after heavy storms.
- Clean parking facilities regularly to prevent accumulated wastes and pollutants from being discharged into conveyance systems during rainy conditions.

Supplemental Information

Further Detail of the BMP

Surface Repair

Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff. Where applicable, cover and seal nearby storm drain inlets (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal. Only use only as much water as is necessary for dust control to avoid runoff.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Drainage System Maintenance SC-44

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	✓
Oil and Grease	
Organics	

Description

As a consequence of its function, the stormwater conveyance system collects and transports urban runoff and stormwater that may contain certain pollutants. The protocols in this fact sheet are intended to reduce pollutants reaching receiving waters through proper conveyance system operation and maintenance.

Approach

Pollution Prevention

Maintain catch basins, stormwater inlets, and other stormwater conveyance structures on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, restore catch basins' sediment trapping capacity, and ensure the system functions properly hydraulically to avoid flooding.

Suggested Protocols

Catch Basins/Inlet Structures

- Staff should regularly inspect facilities to ensure compliance with the following:
  - Immediate repair of any deterioration threatening structural integrity.
  - Cleaning before the sump is 40% full. Catch basins should be cleaned as frequently as needed to meet this standard.
  - Stenciling of catch basins and inlets (see SC34 Waste Handling and Disposal).

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- Clean catch basins, storm drain inlets, and other conveyance structures before the wet season to remove sediments and debris accumulated during the summer.

- Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.

- Keep accurate logs of the number of catch basins cleaned.

- Store wastes collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain.

- Dewater the wastes if necessary with outflow into the sanitary sewer if permitted. Water should be treated with an appropriate filtering device prior to discharge to the sanitary sewer. If discharge to the sanitary sewer is not allowed, water should be pumped or vacuumed to a tank and properly disposed. Do not dewater near a storm drain or stream.

Storm Drain Conveyance System

- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.

- Collect and pump flushed effluent to the sanitary sewer for treatment whenever possible.

Pump Stations

- Clean all storm drain pump stations prior to the wet season to remove silt and trash.

- Do not allow discharge to reach the storm drain system when cleaning a storm drain pump station or other facility.

- Conduct routine maintenance at each pump station.

- Inspect, clean, and repair as necessary all outlet structures prior to the wet season.

Open Channel

- Modify storm channel characteristics to improve channel hydraulics, increase pollutant removals, and enhance channel/creek aesthetic and habitat value.

- Conduct channel modification/improvement in accordance with existing laws. Any person, government agency, or public utility proposing an activity that will change the natural (emphasis added) state of any river, stream, or lake in California, must enter into a Steam or Lake Alteration Agreement with the Department of Fish and Game. The developer-applicant should also contact local governments (city, county, special districts), other state agencies (SWRCB, RWQCB, Department of Forestry, Department of Water Resources), and Federal Corps of Engineers and USFWS.

Illicit Connections and Discharges

- Look for evidence of illegal discharges or illicit connections during routine maintenance of conveyance system and drainage structures:

  - Is there evidence of spills such as paints, discoloring, etc?

- Are there any odors associated with the drainage system?
- Record locations of apparent illegal discharges/illicit connections?
- Track flows back to potential dischargers and conduct aboveground inspections. This can be done through visual inspection of upgradient manholes or alternate techniques including zinc chloride smoke testing, fluorometric dye testing, physical inspection testing, or television camera inspection.
- Eliminate the discharge once the origin of flow is established.

■ Stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as "Dump No Waste Drains to Stream" stenciled next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.

■ Refer to fact sheet SC-10 Non-Stormwater Discharges.

Illegal Dumping

■ Inspect and clean up hot spots and other storm drainage areas regularly where illegal dumping and disposal occurs.

■ Establish a system for tracking incidents. The system should be designed to identify the following:

- Illegal dumping hot spots
- Types and quantities (in some cases) of wastes
- Patterns in time of occurrence (time of day/night, month, or year)
- Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)
- Responsible parties

■ Post "No Dumping" signs in problem areas with a phone number for reporting dumping and disposal. Signs should also indicate fines and penalties for illegal dumping.

■ Refer to fact sheet SC-10 Non-Stormwater Discharges.

Training

■ Train crews in proper maintenance activities, including record keeping and disposal.

■ Allow only properly trained individuals to handle hazardous materials/wastes.

■ Have staff involved in detection and removal of illicit connections trained in the following:

- OSHA-required Health and Safety Training (29 CFR 1910.120) plus annual refresher training (as needed).

- OSHA Confined Space Entry training (Cal-OSHA Confined Space, Title 8 and Federal OSHA 29 CFR 1910.146).

- Procedural training (field screening, sampling, smoke/dye testing, TV inspection).

Spill Response and Prevention

- Investigate all reports of spills, leaks, and/or illegal dumping promptly.

- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags) or dig up, remove, and properly dispose of contaminated soil.

- Refer to fact sheet SC-11 Spill Prevention, Control, and Cleanup.

Other Considerations (Limitations and Regulations)

- Clean-up activities may create a slight disturbance for local aquatic species. Access to items and material on private property may be limited. Trade-offs may exist between channel hydraulics and water quality/riparian habitat. If storm channels or basins are recognized as wetlands, many activities, including maintenance, may be subject to regulation and permitting.

- Storm drain flushing is most effective in small diameter pipes (36-inch diameter pipe or less, depending on water supply and sediment collection capacity). Other considerations associated with storm drain flushing may include the availability of a water source, finding a downstream area to collect sediments, liquid/sediment disposal, and prohibition against disposal of flushed effluent to sanitary sewer in some areas.

- Regulations may include adoption of substantial penalties for illegal dumping and disposal.

- Local municipal codes may include sections prohibiting discharge of soil, debris, refuse, hazardous wastes, and other pollutants into the storm drain system.

Requirements

Costs

- An aggressive catch basin cleaning program could require a significant capital and O&M budget.

- The elimination of illegal dumping is dependent on the availability, convenience, and cost of alternative means of disposal. The primary cost is for staff time. Cost depends on how aggressively a program is implemented. Other cost considerations for an illegal dumping program include:

  - Purchase and installation of signs.

  - Rental of vehicle(s) to haul illegally-disposed items and material to landfills.

  - Rental of heavy equipment to remove larger items (e.g., car bodies) from channels.

  - Purchase of landfill space to dispose of illegally-dumped items and material.

- Methods used for illicit connection detection (smoke testing, dye testing, visual inspection, and flow monitoring) can be costly and time-consuming. Site-specific factors, such as the level of impervious area, the density and ages of buildings, and type of land use will determine the level of investigation necessary.

Maintenance

- Two-person teams may be required to clean catch basins with vactor trucks.
- Teams of at least two people plus administrative personnel are required to identify illicit discharges, depending on the complexity of the storm sewer system.
- Arrangements must be made for proper disposal of collected wastes.
- Technical staff are required to detect and investigate illegal dumping violations.

Supplemental Information

Further Detail of the BMP

Storm Drain Flushing

Flushing is a common maintenance activity used to improve pipe hydraulics and to remove pollutants in storm drainage systems. Flushing may be designed to hydraulically convey accumulated material to strategic locations, such as an open channel, another point where flushing will be initiated, or the sanitary sewer and the treatment facilities, thus preventing resuspension and overflow of a portion of the solids during storm events. Flushing prevents "plug flow" discharges of concentrated pollutant loadings and sediments. Deposits can hinder the designed conveyance capacity of the storm drain system and potentially cause backwater conditions in severe cases of clogging.

Storm drain flushing usually takes place along segments of pipe with grades that are too flat to maintain adequate velocity to keep particles in suspension. An upstream manhole is selected to place an inflatable device that temporarily plugs the pipe. Further upstream, water is pumped into the line to create a flushing wave. When the upstream reach of pipe is sufficiently full to cause a flushing wave, the inflated device is rapidly deflated with the assistance of a vacuum pump, thereby releasing the backed up water and resulting in the cleaning of the storm drain segment.

To further reduce impacts of stormwater pollution, a second inflatable device placed well downstream may be used to recollect the water after the force of the flushing wave has dissipated. A pump may then be used to transfer the water and accumulated material to the sanitary sewer for treatment. In some cases, an interceptor structure may be more practical or required to recollect the flushed waters.

It has been found that cleansing efficiency of periodic flush waves is dependent upon flush volume, flush discharge rate, sewer slope, sewer length, sewer flow rate, sewer diameter, and population density. As a rule of thumb, the length of line to be flushed should not exceed 700 feet. At this maximum recommended length, the percent removal efficiency ranges between 65-75% for organics and 55-65% for dry weather grit/inorganic material. The percent removal efficiency drops rapidly beyond that. Water is commonly supplied by a water truck, but fire hydrants can also supply water. To make the best use of water, it is recommended that reclaimed water be used or that fire hydrant line flushing coincide with storm sewer flushing.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

Ferguson, B.K. 1991. Urban Stream Reclamation, p. 324-322, Journal of Soil and Water Conservation.

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net

United States Environmental Protection Agency (USEPA). 2002. Pollution Prevention/Good Housekeeping for Municipal Operations Storm Drain System Cleaning. On line:
http://www.epa.gov/npdes/menuofbmps/poll_16.htm

Vegetated Swale TC-30

Maintenance Concerns, Objectives, and Goals

- Channelization
- Vegetation/Landscape Maintenance
- Vector Control
- Aesthetics
- Hydraulic and Removal Efficacy

Targeted Constituents

✓	Sediment	▲
✓	Nutrients	●
✓	Trash	●
✓	Metals	▲
✓	Bacteria	●
✓	Oil and Grease	▲
✓	Organics	▲

Legend ***(Removal Effectiveness)***

● Low ■ High

▲ Medium

General Description

Vegetated swales are open, shallow channels with vegetation covering the side slopes and bottom that collect and slowly convey runoff flow to downstream discharge points. They are designed to treat runoff through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils. Swales can be natural or manmade. They trap particulate pollutants (suspended solids and trace metals), promote infiltration, and reduce the flow velocity of stormwater runoff. Vegetated swales can serve as part of a stormwater drainage system and can replace curbs, gutters and storm sewer systems. Therefore, swales are best suited for residential, industrial, and commercial areas with low flow and smaller populations.

Inspection/Maintenance Considerations

It is important to consider that a thick vegetative cover is needed for vegetated swales to function properly. Usually, swales require little more than normal landscape maintenance activities such as irrigation and mowing to maintain pollutant removal efficiency. Swales can become a nuisance due to mosquito breeding in standing water if obstructions develop (e.g., debris accumulation, invasive vegetation) and/or if proper drainage slopes are not implemented and maintained. The application of fertilizers and pesticides should be minimized.

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Inspection Activities	Suggested Frequency
■ Inspect after seeding and after first major storms for any damages.	Post construction
■ Inspect for signs of erosion, damage to vegetation, channelization of flow, debris and litter, and areas of sediment accumulation. Perform inspections at the beginning and end of the wet season. Additional inspections after periods of heavy runoff are desirable.	Semi-annual
■ Inspect level spreader for clogging, grass along side slopes for erosion and formation of rills or gullies, and sand/soil bed for erosion problems.	Annual
Maintenance Activities	**Suggested Frequency**
■ Mow grass to maintain a height of 3–4 inches, for safety, aesthetic, or other purposes. Litter should always be removed prior to mowing. Clippings should be composted. ■ Irrigate swale during dry season (April through October) or when necessary to maintain the vegetation. ■ Provide weed control, if necessary to control invasive species.	As needed (frequent, seasonally)
■ Remove litter, branches, rocks blockages, and other debris and dispose of properly. ■ Maintain inlet flow spreader (if applicable). ■ Repair any damaged areas within a channel identified during inspections. Erosion rills or gullies should be corrected as needed. Bare areas should be replanted as necessary.	Semi-annual
■ Declog the pea gravel diaphragm, if necessary. ■ Correct erosion problems in the sand/soil bed of dry swales. ■ Plant an alternative grass species if the original grass cover has not been successfully established. Reseed and apply mulch to damaged areas.	Annual (as needed)
■ Remove all accumulated sediment that may obstruct flow through the swale. Sediment accumulating near culverts and in channels should be removed when it builds up to 3 in. at any spot, or covers vegetation, or once it has accumulated to 10% of the original design volume. Replace the grass areas damaged in the process. ■ Rototill or cultivate the surface of the sand/soil bed of dry swales if the swale does not draw down within 48 hours.	As needed (infrequent)

Additional Information

Recent research (Colwell et al., 2000) indicates that grass height and mowing frequency have little impact on pollutant removal. Consequently, mowing may only be necessary once or twice a year for safety or aesthetics or to suppress weeds and woody vegetation.

References

Metropolitan Council, Urban Small Sites Best Management Practices Manual. Available at: http://www.metrocouncil.org/environment/Watershed/BMP/manual.htm

U.S. Environmental Protection Agency, Post-Construction Stormwater Management in New Development & Redevelopment BMP Factsheets. Available at: cfpub.epa.gov/npdes/stormwater/menuofbmps/bmp_files.cfm

Ventura Countywide Stormwater Quality Management Program, Technical Guidance Manual for Stormwater Quality Control Measures. July, 2002.

Maintenance Concerns, Objectives, and Goals

- Clogged Soil or Outlet Structures
- Invasive Species
- Vegetation/Landscape Maintenance
- Erosion
- Channelization of Flow
- Aesthetics

General Description

The bioretention best management practice (BMP) functions as a soil and plant-based filtration device that removes pollutants through a variety of physical, biological, and chemical treatment processes. These facilities normally consist of a grass buffer strip, sand bed, ponding area, organic layer or mulch layer, planting soil, and plants. The runoff's velocity is reduced by passing over or through a sand bed and is subsequently distributed evenly along a ponding area. Exfiltration of the stored water in the bioretention area planting soil into the underlying soils occurs over a period of days.

Inspection/Maintenance Considerations

Bioretention requires frequent landscaping maintenance, including measures to ensure that the area is functioning properly, as well as maintenance of the landscaping on the practice. In many cases, bioretention areas initially require intense maintenance, but less maintenance is needed over time. In many cases, maintenance tasks can be completed by a landscaping contractor, who may already be hired at the site. In cold climates the soil may freeze, preventing runoff from infiltrating into the planting soil.

Targeted Constituents

✓	Sediment	■
✓	Nutrients	▲
✓	Trash	■
✓	Metals	■
✓	Bacteria	■
✓	Oil and Grease	■
✓	Organics	■

Legend ***(Removal Effectiveness)***

● Low ■ High

▲ Medium

CASQA California Stormwater Quality Association

Inspection Activities	Suggested Frequency
▪ Inspect soil and repair eroded areas.	Monthly
▪ Inspect for erosion or damage to vegetation, preferably at the end of the wet season to schedule summer maintenance and before major fall runoff to be sure the strips are ready for winter. However, additional inspection after periods of heavy runoff is desirable.	Semi-annual inspection
▪ Inspect to ensure grass is well established. If not, either prepare soil and reseed or replace with alternative species. Install erosion control blanket. ▪ Check for debris and litter, and areas of sediment accumulation. ▪ Inspect health of trees and shrubs.	
Maintenance Activities	**Suggested Frequency**
▪ Water plants daily for 2 weeks.	At project completion
▪ Remove litter and debris.	Monthly
▪ Remove sediment. ▪ Remulch void areas. ▪ Treat diseased trees and shrubs. ▪ Mow turf areas. ▪ Repair erosion at inflow points. ▪ Repair outflow structures. ▪ Unclog underdrain. ▪ Regulate soil pH regulation.	As needed
▪ Remove and replace dead and diseased vegetation.	Semi-annual
▪ Add mulch. ▪ Replace tree stakes and wires.	Annual
▪ Mulch should be replaced every 2 to 3 years or when bare spots appear. Remulch prior to the wet season.	Every 2-3 years, or as needed

Additional Information

Landscaping is critical to the function and aesthetic value of bioretention areas. It is preferable to plant the area with native vegetation, or plants that provide habitat value, where possible. Another important design feature is to select species that can withstand the hydrologic regime they will experience. At the bottom of the bioretention facility, plants that tolerate both wet and dry conditions are preferable. At the edges, which will remain primarily dry, upland species will be the most resilient. It is best to select a combination of trees, shrubs, and herbaceous materials.

References

Metropolitan Council, Urban Small Sites Best Management Practices Manual. Available at: http://www.metrocouncil.org/environment/Watershed/BMP/manual.htm

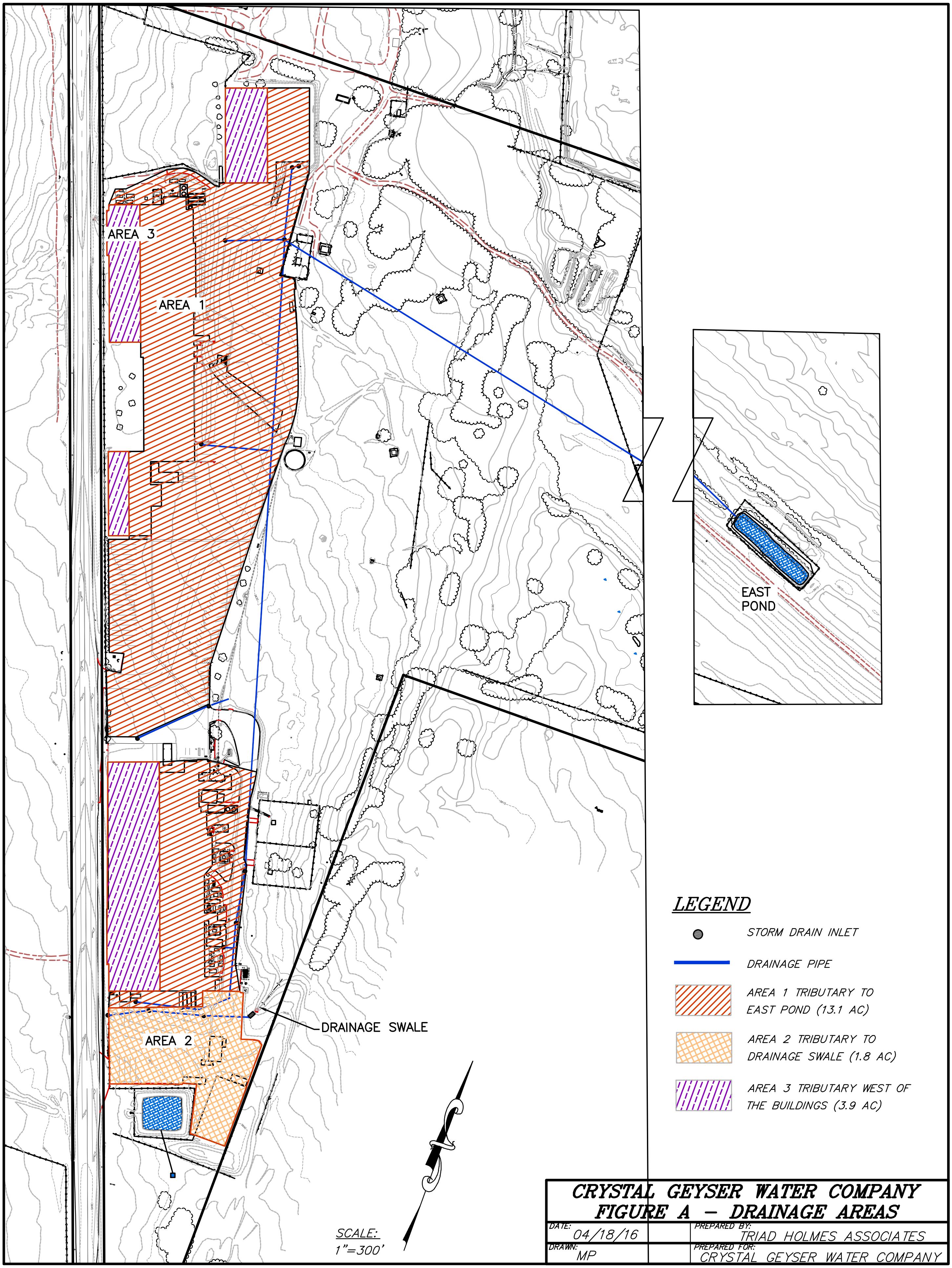
Model Urban Runoff Program: A How-To Guide for Developing Urban Runoff Programs for Small Municipalities. Prepared by City of Monterey, City of Santa Cruz, California Coastal Commission, Monterey Bay National Marine Sanctuary, Association of Monterey Bay Area Governments, Woodward-Clyde, Central Coast Regional Water Quality Control Board. July, 1998, revised February, 2002.

U.S. Environmental Protection Agency, Post-Construction Stormwater Management in New Development & Redevelopment BMP Factsheets. Available at: cfpub.epa.gov/npdes/stormwater/menuofbmps/bmp_files.cfm

Ventura Countywide Stormwater Quality Management Program, Technical Guidance Manual for Stormwater Quality Control Measures. July, 2002.

Attachment L

Storm Water Calculations



CRYSTAL GEYSER WATER COMPANY

FIGURE A – DRAINAGE AREAS

DATE: 04/18/16	PREPARED BY: TRIAD HOLMES ASSOCIATES
DRAWN: MP	PREPARED FOR: CRYSTAL GEYSER WATER COMPANY

CG Roxane Water Company
Olancha, CA

East Pond Storage Volume Calculations

Tributary Area (Impervious)	13.1 ac
Rainfall Intesity (NOAA) 25yr, 24 hr	3.15 in
Runoff Coefficient (Impervious)	0.95
Volume Required 25 Yr Storm	142,017 cf
Volume Required Bottling Line Flow	4824 cf
Total Volume Required	**146,841 cf**

Percolation Rate[1]	4 in/hr
Area Pond[2]	5,225 sf
Volume Perculated (24 hrs)	156,750 cf
Volume Basin	740 cf
Total Volume Basin	**157,490 cf**

No additional storage volume is required.

[1] Per geotechnical report, the percolation rate is less than 1min/in. A conservative percolation rate is used in calculations to account for very wet saturated soil conditions.

[2] Bottom area of the pond is used, there wil be additional percolation through the sides of the basin.

CG Roxane Water Company
Olancha, CA

South Perculation Pond Storage Volume Calculations

Tributary Area (Area South Pond)	0.3 ac
Rainfall Intesity (NOAA) 25yr, 24 hr	3.15 in
Runoff Coefficient	0.4
Volume Required 25 Yr Storm	1,372 cf
Volume Required Bottling Line Flow	309 cf
Total Volume Required	**1,681 cf**

Percolation Rate[1]	6 in/hr
Area New Percultions Pond	100 sf
Volume Perculated (24 hrs)	2,000 cf
Volume Basin	100 cf
Total Volume Provided	**2,100 cf**

Perculation Pond is adecuately sized.

[1] Per geotechnical report, the percolation rate is less than 1min/in in the surrounding area. A conservative percolation rate is used in calculations to account for very wet saturated soil conditions.

APPENDIX C

SOIL PROFILE HOLE LOGS

AND

PERCOLATION TEST RESULTS

Four soil profile holes were excavated within the site area. A backhoe equipped a with a 24-inch bucket was used for the excavations. Soil materials were visually classified in the field according to the Unified Soil Classification System (USCS). Logs of the soil profile holes are presented herein. The approximate locations of the soil profile holes are shown on the Subsurface Location Map (Figure 3).

Two percolation tests were also performed. The locations of the percolation test holes are shown on Figure 2. Percolation test procedures included excavation of small trenches to approximately 2½ to 3½-feet in depth in the immediate vicinity of the soil profile holes. An approximate 1'x1'x1' hole was hand dug at the base of each trench, filled with "clean" gravel and a 4-inch perforated standpipe, and then saturated prior to the commencement of testing. Terminal percolation rates were <1 minute per inch. The percolation test results are also included herein.

SIERRA GEOTECHNICAL SERVICES INC.
P.O. BOX 5024
MAMMOTH LAKES, CA 93546
(760) 934-3992

APPENDIX B

SOIL PROFILE HOLE LOGS

JOB NO: 3.00915.4.2
DATE: 2/8/2010
EQUIP: Case 580 Backhoe w/ 24" Bucket

PROJECT: CG Roxanne Bottling Facility
LOGGED BY: PS

PROFILE HOLE	DEPTH (FT)	U.S.C.S. GROUP SYMBOL	SAMPLE DEPTH	PERCENT MOISTURE	DRY DENSITY (pcf)	DESCRIPTION
						Lake Bed Deposits
1	0 - 3	SP-SM				Light brown to reddish-brown, moist, loose to medium dense, silty, very fine to coarse grained SAND, few roots in upper 1'.
	3 - 10	SC-SM				Light brown to greenish-brown, moist to wet, medium dense, silty, very fine to coarse SAND and sandy CLAY.
						Total Depth 10-feet. Groundwater encountered at 9'. Backfilled 11/9/2010.

PROFILE HOLE	DEPTH (FT)	U.S.C.S. GROUP SYMBOL	SAMPLE DEPTH	PERCENT MOISTURE	DRY DENSITY (pcf)	DESCRIPTION
						Lake Bed Deposits
2	0 - 2½	SP-SM				Light to medium yellowish-brown, moist, loose to medium dense, silty, very fine to coarse grained SAND.
	2½ - 7½	SC-SM				Light brown to greenish-brown, moist, medium dense, silty, very fine to coarse SAND and sandy CLAY.
	7½ -9	SM				Light brown to greenish-brown, moist to wet, medium dense, silty, very fine to coarse SAND; few cobbles.
						Total Depth 9-feet. Groundwater encountered at 9'. Backfilled 11/9/2010.

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APPENDIX B

SOIL PROFILE HOLE LOGS

JOB NO: **3.00915.4.2**
DATE: **11/9/2010**
EQUIP: **Case 580 Backhoe w/ 24" Bucket**

PROJECT: **CG Roxanne Bottling Facility**
LOGGED BY: **JAA**

PROFILE HOLE	DEPTH (FT)	U.S.C.S. GROUP SYMBOL	SAMPLE DEPTH	PERCENT MOISTURE	DRY DENSITY (pcf)	DESCRIPTION
3	0 - 7	SM				**Lake Bed Deposits** Dark brown, moist, loose to medium dense, silty, very fine to medium grained SAND, few roots in upper 1' -- *Total Depth 7-feet. Groundwater encountered at 4½'. Backfilled 11/9/2010.*

PROFILE HOLE	DEPTH (FT)	U.S.C.S. GROUP SYMBOL	SAMPLE DEPTH	PERCENT MOISTURE	DRY DENSITY (pcf)	DESCRIPTION
4	0 - 8½	SM				**Lake Bed Deposits** Light to medium yellowish-brown, moist, loose to medium dense, silty, very fine to coarse grained SAND, few gravels.
	8½ - 9½	SC-SM				Light brown to greenish-brown, moist to wet, medium dense, silty, very fine to coarse SAND and sandy CLAY. -- *Total Depth 9½-feet. Groundwater encountered at 8½'. Backfilled 11/9/2010.*

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PERCOLATION TEST RESULTS

JOB NO. 3.00915.4.2 TESTED BY PS

LOCATION: Cabin Bar Ranch DATE 2/8/2010

TEST NO.	TIME	WATER DEPTH (IN)	INTERVAL DROP (IN)	PERCOLATION RATE (MIN/IN)	DESCRIPTION
PK#1					
	12:31	0			Saturated for 2 hrs. prior to test.
	12:33	12 2/8	12 2/8	<1	Tested @ 2½-3½ feet below surface. 4" Perf. pipe
RFH	12:41	0			surrounded by 3/4" gravel.
	12:43	12 2/8	12 2/8	<1	
RFH	12:54	0			
	12:56	12 2/8	12 2/8	<1	
RFH	1:06	0			
	1:08	12 2/8	12 2/8	<1	
RFH	1:17	0			
	1:19	12 2/8	12 2/8	<1	
RFH	1:30	0			
	1:32	12 2/8	12 2/8	<1	
RFH	1:41	0			
	1:43	12 2/8	12 2/8	<1	
RFH	1:55	0			
	1:57	12 2/8	12 2/8	<1	
RFH	2:07	0			
	2:10	12 4/8	12 4/8	<1	
RFH	2:20	0			
	2:23	12 4/8	12 4/8	<1	
RFH	2:33	0			
	2:36	12 4/8	12 4/8	<1	
RFH	2:45	0			
	2:48	12 4/8	12 4/8	<1	

RFH= Refill Hole

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PERCOLATION TEST RESULTS

JOB NO. 3.00915.4.2 TESTED BY PS

LOCATION: Cabin Bar Ranch DATE 2/8/2010

TEST NO.	TIME	WATER DEPTH (IN)	INTERVAL DROP (IN)	PERCOLATION RATE (MIN/IN)	DESCRIPTION
PK#2					
	12:36	0			Saturated for 2 hrs. prior to test.
	12:40	13	<1		Tested @ 2½-3½ feet below surface. 4" Perf. pipe
RFH	12:47	0			surrounded by 3/4" gravel.
	12:52	13	<1		
RFH	12:59	0			
	1:04	13	<1		
RFH	1:10	0			
	1:15	13	<1		
RFH	1:22	0			
	1:27	13	<1		
RFH	1:34	0			
	1:39	13	<1		
RFH	1:46	0			
	1:51	13	<1		
RFH	2:00	0			
	2:05	13	<1		
RFH	2:12	0			
	2:17	13	<1		
RFH	2:25	0			
	2:30	13	<1		
RFH	2:37	0			
	2:42	13	<1		
RFH	2:53	0			
	2:58	13	<1		

RFH= Refill Hole

APPENDIX F

SCALED PLOT PLANS

Project:			
CG ROXANE, OLANCHA, CA			
Date: MAY 28, 2015	Drawn by: / Dessine par: LIONEL FERCHAUD	Sheet name:	Sheet N°
Scale/Echelle: NONE		SITE PLAN	1
CG ROXANE LLC 1400 MARY"S DR WEED, CA 96094 Phone: (530) 938-1831 E-Mail: L.Ferchaud@CGRoxane.com		Drawing N°: / Plan N°: Olancha rejects 04012015.dwg	

Project:			
CG ROXANE, OLANCHA, CA			
Date: MAY 28, 2015	Drawn by: / Dessine par: LIONEL FERCHAUD	Sheet name:	Sheet N°
Scale/Echelle: NONE		SITE PLAN	2
CG ROXANE LLC 1400 MARY"S DR WEED, CA 96094 Phone: (530) 938-1831 E-Mail: L.Ferchaud@CGRoxane.com		Drawing N°: / Plan N°: Olancha rejects 04012015.dwg	

Project:

CG ROXANE, OLANCHA, CA

Date: MAY 28, 2015	Drawn by: Dessine par: LIONEL FERCHAUD	Sheet name:	Sheet N°
Scale/Echelle: NONE		LAYOUT OF WASTE WATER DISCHARGE SYSTEMS	3

CG ROXANE LLC
1400 MARY"S DR
WEED, CA 96094
Phone: (530) 938-1831
E-Mail: L.Ferchaud@CGRoxane.com

Drawing N°: Plan N°: Olancha rejects 04012015.dwg

Project:	CG ROXANE, OLANCHA, CA
Date: MAY 28, 2015	Drawn by: LIONEL FERCHAUD
Scale: 1/32" = 1'–0"	
Sheet name: LAYOUT OF WASTE WATER DISCHARGE SYSTEMS (NORTH)	Sheet N°: 4
Drawing N°: Olancha rejects 04012015.dwg	

CG ROXANE LLC
1400 MARY"S DR
WEED, CA 96094
Phone: (530) 938–1831
E–Mail: L.Ferchaud@CGRoxane.com

Project:			
CG ROXANE, OLANCHA, CA			
Date: MAY 28, 2015	Drawn by: LIONEL FERCHAUD	Sheet name:	Sheet N°
Scale: 1/32" = 1'-0"		LAYOUT OF WASTE WATER DISCHARGE SYSTEMS (SOUTH)	5
CG ROXANE LLC 1400 MARY"S DR WEED, CA 96094 Phone: (530) 938-1831 E-Mail: L.Ferchaud@CGRoxane.com		Drawing N°: Olancha rejects 04012015.dwg	

APPENDIX G

WASTEWATER FLOW RATE ESITMATES

Appendix G
Wastewater Flow Estimates
Olancha Spring Water Bottling Facility
Olancha, California

Process Train	Process Step	Unit	Quantity	Waste Generating Process	Average Total Waste Discharge Flow Rate (gal/day)	Waste Discharge Total Annual Flow (gal/year)	Type of Waste/Wastewater	Primary Wastewater Constituent(s)	Constituent Concentration	Wastewater Discharge Frequency	Wastewater Discharge Destination	Notes
Step #1 (All Three Circuits)		Bag Filters	7	Pre-Use Rinseate	120	31,000	Extracted Groundwater	None	Not Sampled	Every two months	East Pond	- filtered process water is conveyed to Step #2 of all three major process trains
Domestic Water Circuit	Step #2	CGR South Production Water Arsenic Removal Media	1	Media Disposal	N/A	N/A	Spent Arsenic Removal Media	Arsenic	Not Sampled	Multiple Years (media disposal has not yet been required)	Offsite Disposal Facility	- treated process water is discharged to Step #3
		CGR North Production Water Arsenic Removal Media	1									
	Step #3	Chlorination & Storage Tank	1	None	--	--	--	--	--	--	--	- chlorinated (0.2 - 0.8 mg/L chlorine) process water is discharged to Step #4
	Step #4	CGR South Restroom Facilities	3	General Restroom Use	270	70,800	Domestic Wastewater	Total Suspended Solids, Biochemical Oxygen Demand, and Other Domestic Wastewater Constituents	Not Sampled	Every Day During Regular Operations	Septic Tank 1	- septic tanks are routinely pumped out by third party agent
					230	59,400					Septic Tank 2	
					160	41,400					Septic Tank 3	
		CGR North Restroom Facility	1		510	132,600					Septic tank 4	
Cooling Towers Circuit	Step #2	Cooling Towers	12	Cooled Process Water	23,000	6,000,000	Softened Groundwater	None	-	Every day	East Pond	
Production Water Circuit	Step #2	CGR South 8,000-gal Ozonation Tanks	2	Tank Purging Between Production Cycles	3,000	1,040,000	Ozonated and Filtered Extracted Groundwater	Ozone	0.02 - 0.07 mg/L	Weekly	East Pond	- ozonated production water is discharged to Step #3
		CGR North 8,000-gal Ozonation Tank	1		700	260,000						
		Ozone Generators	2	Generator Cooling System	1,400	364,000	Generator Cooling System Effluent (originally from domestic water circuit)	None	--	Every day	Cooling Towers then East Pond	
	Step #3	CGR South Arsenic Removal System (Lines #1, #2 & #4)	1	Media Regeneration	N/A	120,000	Dilute caustic soda (2%) and sulfuric acid solutions with dissolved arsenic removed from media	Arsenic	Up to approximately 10 µg/L	Every 3-4 months	East Pond	- the initial approximately 40,000 gallons of wastewater generated per regeneration event is discharged to a vacuum truck for offsite disposal
		CGR North Arsenic Removal System (Lines #3 & #5)	1		N/A	120,000						
		CGR North Arsenic Removal System (Line #6)	1		N/A	120,000						
	Step #4	Microfiltration Systems	3	Purging with Ozonated Water	18,000	4,680,000	Ozonated and Filtered Extracted Groundwater	Ozone	0.02 - 0.07 mg/L	Approximately hourly during production cycles	East Pond	- filtered process water is discharged to Step #5
				Routine Cleaning	N/A	5,000	Dilute phosphoric acid (2%) and caustic soda (3%) solutions	Phosphoric Acid, Caustic Soda	Solutions are mixed and neutralized prior to discharge	Approximately once per year		
	Step #5	Pre-Bottling Water Storage Tanks	2	None	--	--	--	--	--	--	--	- water in the pre-bottling water storage tanks is discharged to Step #6
	Step #6	Bottle Filler # 1	1	End of Production Cycle Equipment Purging	700	180,000	Ozonated and Filtered Extracted Groundwater	--	--	Continuously During Production (Every Day)	East Pond	
		Bottle Filler # 2	1		2,300	590,000					Fire Pond	- Fire Pond water occassionally discharges to adjacent land
		Bottle Filler # 3	1		700	170,000					East Pond	
		Bottle Filler # 4	1		1,200	310,000						
		Bottle Filler # 5	1		1,300	340,000						
		Bottle Filler # 6	1		1,700	440,000						
Miscellaneous Equipment Cleaning	N/A	Bottle Fillers #1, #3, #4, #5 & #6	5	Cleaning	100/500	26,000/130,000	Dilute Phosphoric Acid Solution	Phosphoric Acid	0.1 g/L	Every day	East Pond	
				Sanitation	100/500	26,000/130,000	Dilute Quaternary Ammonium Solution	Quaternary Ammonium	0.3 mg/L			
	N/A	Bottle Filler #2	1	Cleaning	20/100	5,200/26,000	Dilute Phosphoric Acid Solution	Phosphoric Acid	0.1 g/L	Every day	Fire Pond	
				Sanitation	20/100	5,200/26,000	Dilute Quaternary Ammonium Solution	Quaternary Ammonium	0.3 mg/L			

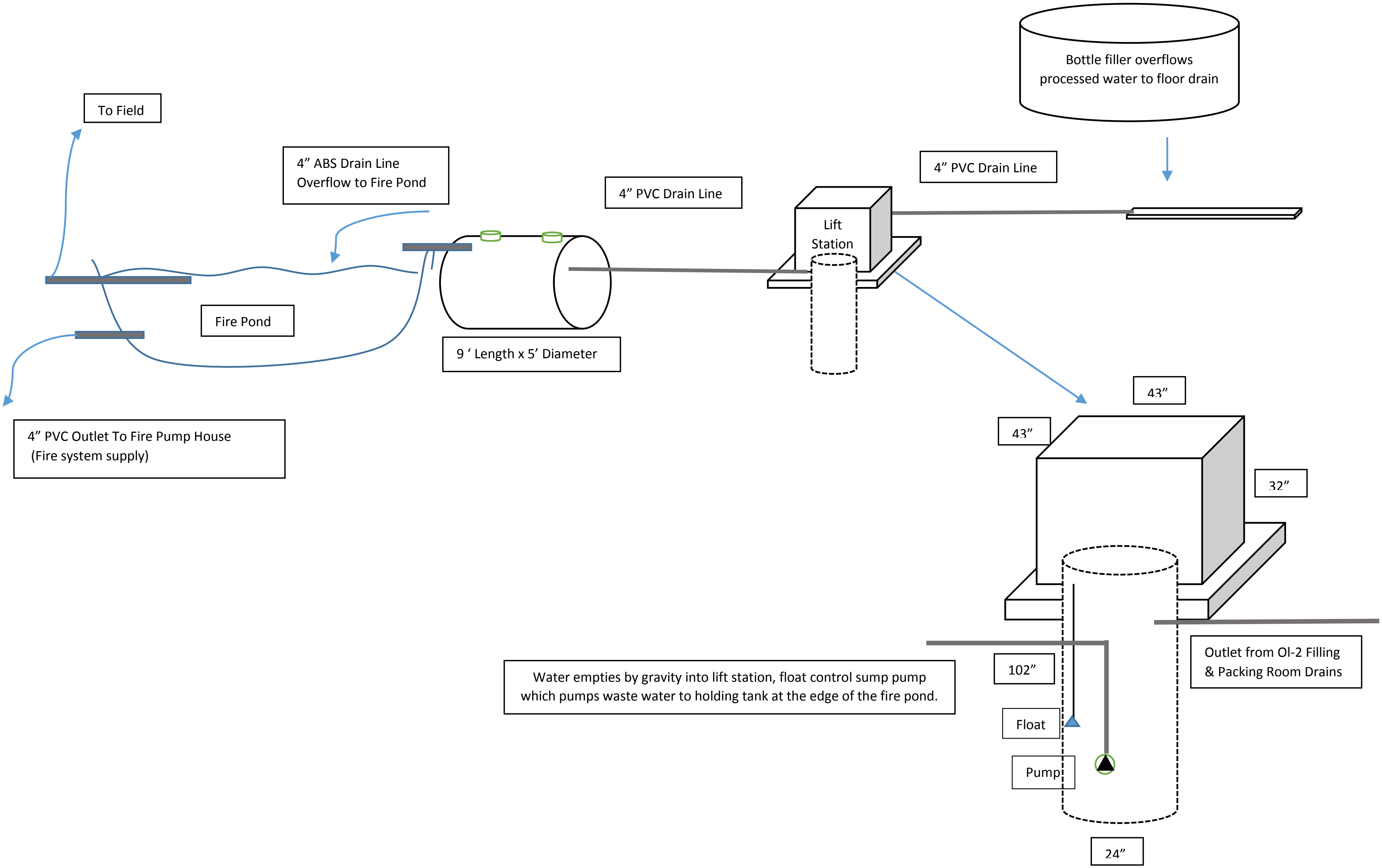
Appendix G
Wastewater Flow Estimates
Olancha Spring Water Bottling Facility
Olancha, California

Notes:
1. All volumes are approximate based on best available data provide by Crystal Geyser Roxane.
2. Total annual discharge volumes are based on 260 days per year of operaton.

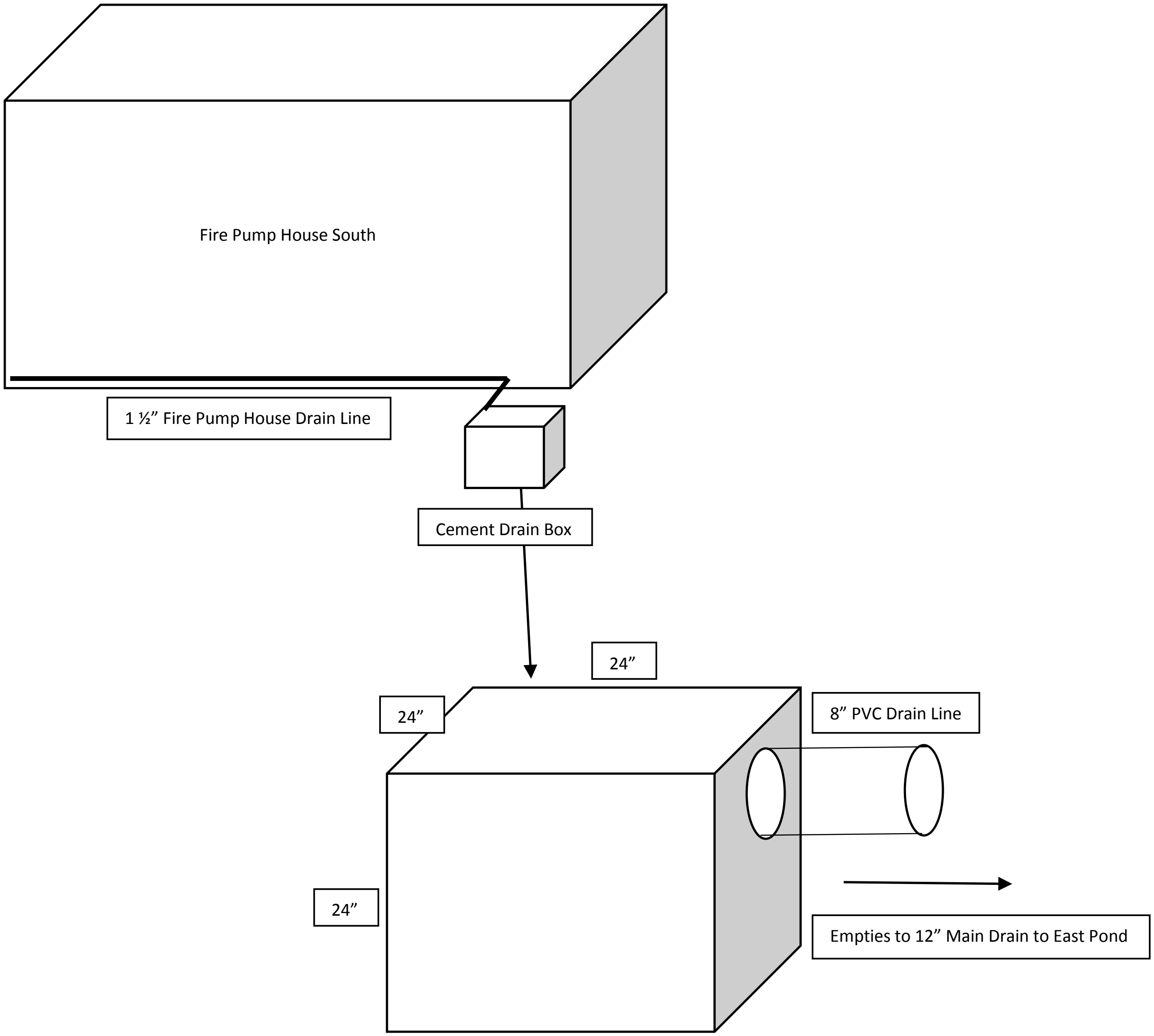
APPENDIX H

CONCEPTUAL PROCESS FLOW DIAGRAMS

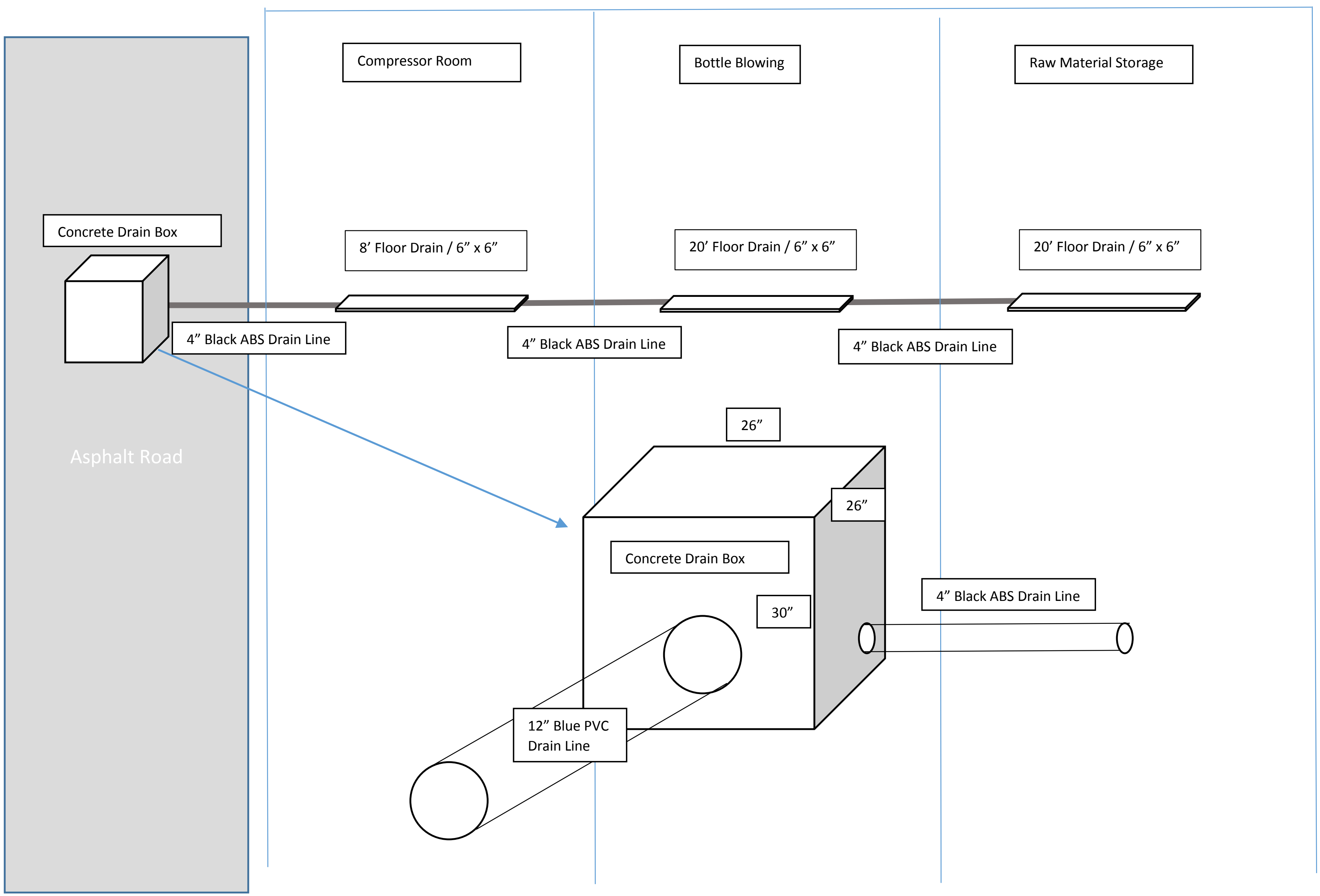
Olancha 2 Filling and Packing Room Drains



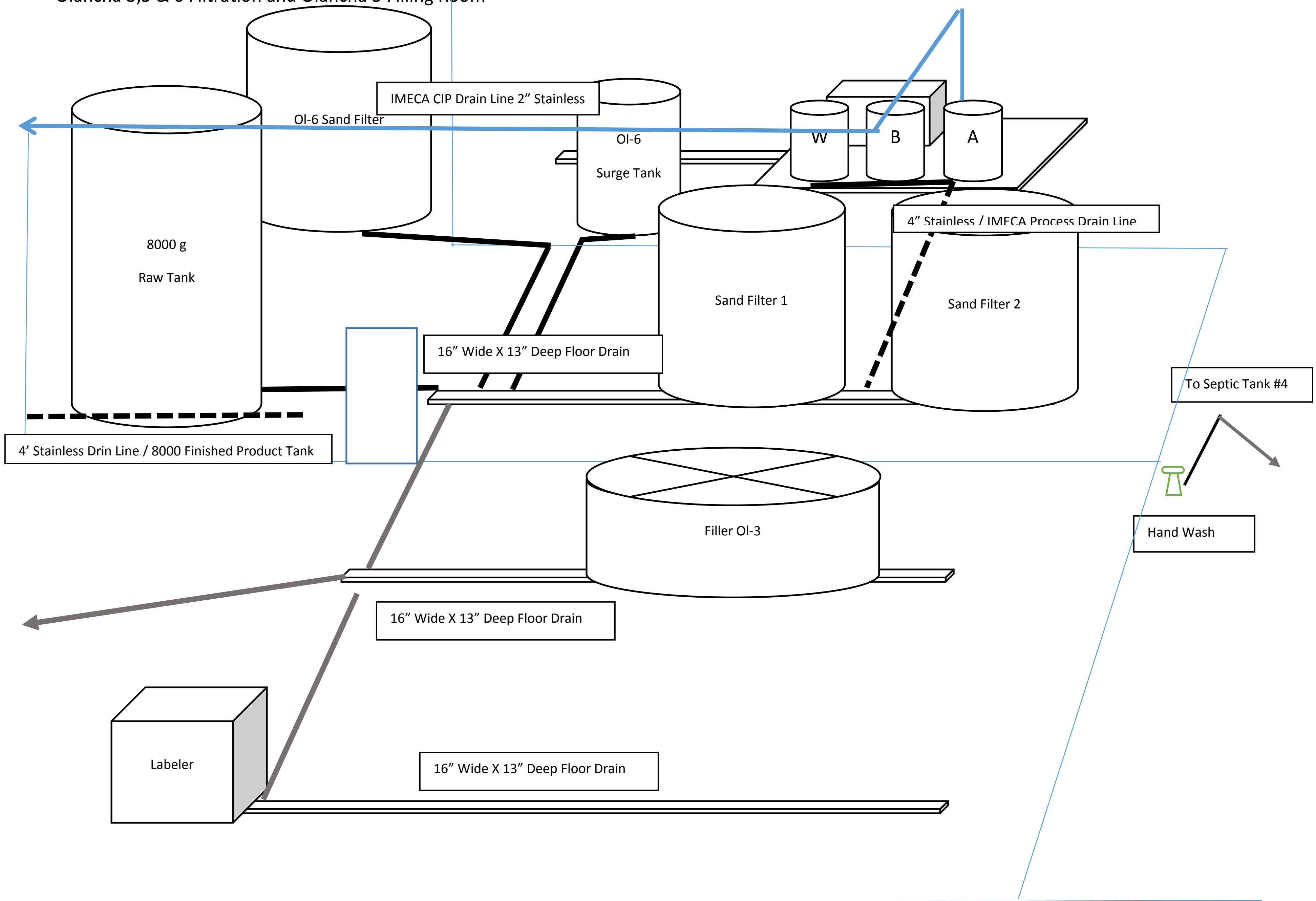
Fire Pump House Drain



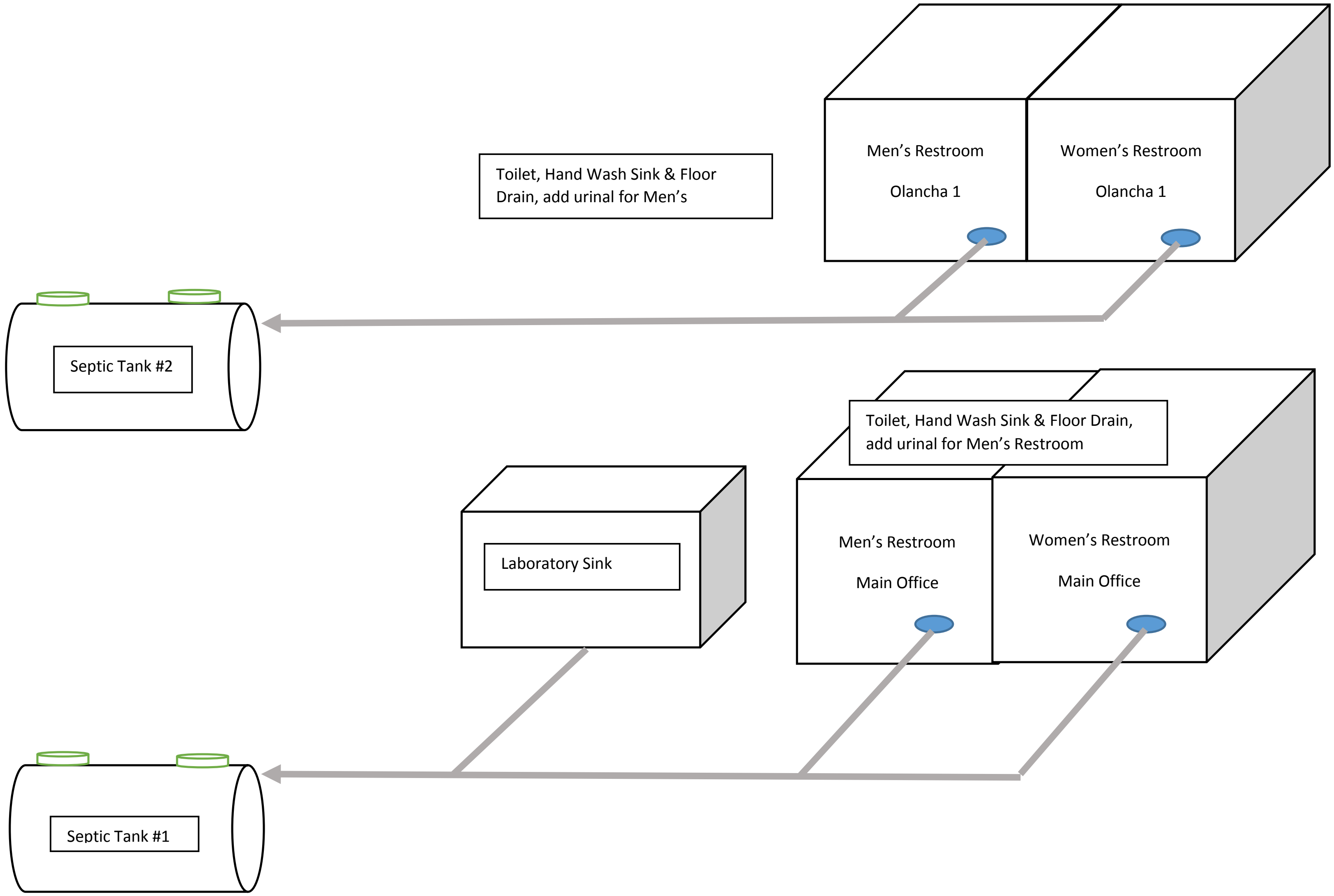
Olancha South Raw Material, Bottle Blowing Room and Compressor Room Drains



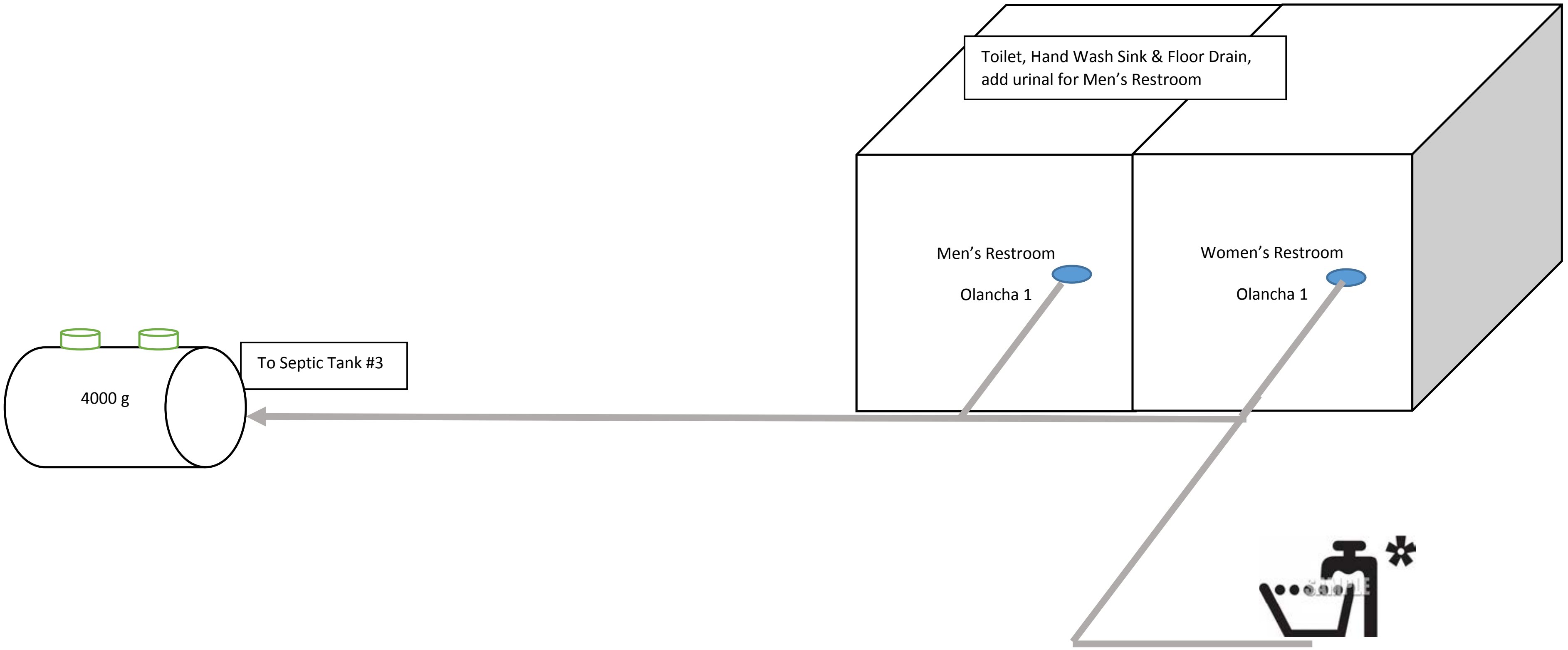
Olancha 3,5 & 6 Filtration and Olancha 3 Filling Room



Olancha 1 Production Area Restrooms and Office Restrooms including Laboratory Sink



Olancha 2 Production Area Restrooms & Stainless Steel Wash Tub



APPENDIX I

ARSENIC REMOVAL MEDIA REGENERATION PROCEDURE

Appendix I
Arsenic Removal Media Regeneration Procedure

Olancha Spring Water Bottling Facility
Olancha, California

The Crystal Geyser Roxane (CGR) Olancha Spring Water Bottling Facility utilizes natural manganese sand filters (sand filters) to remove naturally occurring arsenic from extracted groundwater. Two arsenic removal units are included in the Domestic Water Circuit to remove arsenic from extracted water used for restrooms, drinking water fountains, and other domestic uses. Arsenic removal media in the Domestic Water Circuit will be disposed of when the media is spent.

Three arsenic removal units are installed in the Production Water Circuit, as outlined below.

- Production Lines #1, #2 and #4 (CGR South) - one unit comprised of two vessels in parallel;
- Production Lines #3 and #5 (CGR North) - one unit comprised of two vessels in parallel; and
- Production Line #6 (CGR North) - one unit comprised of one vessel.

These arsenic removal units are regenerated approximately once every three to four months to remove captured arsenic and improve media treatment efficiency. Regeneration timing is based on monitoring results from an onsite arsenic analyzer. Wastewater generated during media regeneration events is captured by vacuum truck and disposed of at an offsite waste disposal facility. Arsenic removal media regeneration equipment and procedures are summarized below. Procedures are based on Geosyntec oversight of CGR regeneration event on February 5, 2016.

Equipment:

Equipment and materials used during arsenic removal media regeneration events are listed below along with brief descriptions of their function.

- *Arsenic Removal Media Vessels* – Vessels house the arsenic removal media, and are equipped with manifolds that allow for flow through the media in both the forward and reverse directions.

- *Regeneration Solution Tank (approximately 3,500 gallons)* – This tank is used to prepare dilute chemical solutions used during regeneration events; the tank is equipped with a discharge pump to convey chemical solutions through the arsenic removal media.

- *Regeneration Wastewater Tank (approximately 7,000 gallons)* – This tank is used to collect arsenic removal media effluent during regeneration activities.

- *Vacuum Truck* – The vacuum truck collects wastewater from the Regeneration Wastewater Tank and transports it to an offsite facility for disposal.

- *Caustic Soda* – A 30% caustic soda solution is mixed with water to generate a dilute solution for media backwashing. Caustic soda solution is stored on a secondary containment pallet.

- *Sulfuric Acid* – Sulfuric acid solution (93% by weight) is mixed with water to generate a dilute solution for media backwashing. Sulfuric acid solution is stored on secondary containment pallet.

- *Field Instruments* – Field instruments are used to monitor the pH and arsenic concentration of the media effluent during the regeneration process. These instruments provide real-time data which is used to confirm successful media regeneration and guide the duration of certain regeneration steps.

Filter Regeneration Procedure:

Operational procedures for arsenic removal media regeneration are summarized below. These procedures are based upon regeneration of an arsenic removal system comprised of two individual vessels.

Step 1 – Vessel Manifold Configuration
In preparation for vessel backwashing, the production circuit associated with the arsenic removal vessel being regenerated is closed. The arsenic removal vessel manifold is configured for backwards flow and discharge to the Regeneration Wastewater Tank.

Step 2 – Caustic Soda Solution Preparation
Prior to filter regeneration, approximately 3,000 to 4,000 gallons of 2% caustic soda solution is prepared in the Regeneration Solution Tank by filling the tank with raw extracted groundwater, and adding 30% caustic soda solution.

Step 3 – Caustic Soda Backwashing
Arsenic removal media is backwashed with the 2% caustic soda solution by opening the discharge valve at the bottom of the Regeneration Solution Tank, and operating the discharge pump. Caustic soda solution is conveyed to both vessels simultaneously such that each vessel is backwashed with approximately 1,500 to 2,000 gallons of solution. Effluent from the vessels (regeneration wastewater) is conveyed to the Regeneration Wastewater Tank and subsequently removed by vacuum truck for disposal at a licensed facility. The pH and arsenic concentration of vessel effluent is monitored periodically throughout caustic soda backwashing using field instruments. At the completion of the media backwashing cycle, an additional batch of caustic soda solution is prepared, and the process is repeated. A total of three batches of caustic soda solution (approximately 1,500 to 2,000 gallons per vessel per batch) are backwashed during each regeneration event. To avoid overfilling of the Regeneration Wastewater Tank, regeneration wastewater is removed by the vacuum truck at multiple time points throughout the backwashing process.

Step 4 – Water Backwashing (first round)
To remove residual caustic soda from the arsenic removal media, media backwashing is followed by one cycle of water rinsing. A total of approximately 6,000 to 8,000 gallons of raw extracted groundwater is backwashed through the vessels such that each vessel is backwashed with approximately 3,000 to 4,000 gallons of water. Similar to the backwashing process using caustic soda solution, wastewater produced during media rinsing is collected in the Regeneration Wastewater Tank and subsequently removed for offsite disposal by a vacuum truck. The pH and arsenic concentration of vessel effluent is monitored periodically throughout media water rinsing using field instruments.

Step 5 – Sulfuric Acid Solution Preparation
At the completion of media water rinsing, the pH of media effluent is typically approximately 13 standard units (S.U.). The pH of fluid within the arsenic removal media must be decreased to within the neutral range before forward flow of production water can resume. To decrease the pH of fluid within the media vessels, approximately 3,000 to 4,000 gallons of sulfuric acid solution is prepared in the Regeneration Solution Tank by filling the tank with raw extracted groundwater, and manually adding 93% by weight sulfuric acid solution.

Step 6 – Sulfuric Acid Backwashing
Arsenic removal media is backwashed with the sulfuric acid solution by opening the discharge valve at the bottom of the Regeneration Solution Tank, and operating the discharge pump. Sulfuric acid solution is conveyed to both vessels simultaneously such that each vessel is backwashed with approximately 1,500 to 2,000 gallons of solution. Effluent from the vessels (regeneration wastewater) is conveyed to the Regeneration Wastewater Tank and subsequently removed by vacuum truck for disposal at a licensed facility. To avoid overfilling of the Regeneration Wastewater Tank, regeneration wastewater is removed by the vacuum truck at multiple time points throughout the backwashing process. The pH and arsenic concentration of vessel effluent is monitored periodically throughout sulfuric acid backwashing using field instruments. At the completion of the media backwashing cycle, an additional batch of sulfuric acid solution is prepared, and the process is repeated. Media backwashing with sulfuric acid solution continues until the regeneration wastewater pH decreases to approximately 12 S.U., and the arsenic concentration is approximately 100 micrograms per liter (µg/L).

Step 7 – Water Backwashing (second round)
To remove residual sulfuric acid from the arsenic removal media, sulfuric acid backwashing is followed by one cycle of water rinsing. A total of approximately 5,000 to 7,000 gallons of raw extracted groundwater is backwashed through the vessels such that each vessel is backwashed with approximately 2,500 to 3,500 gallons of water. Similar to previous backwashing steps, wastewater produced during media rinsing is collected in the Regeneration Wastewater Tank and subsequently removed for offsite disposal by a vacuum truck. The pH and arsenic concentration of vessel effluent is monitored periodically throughout media water rinsing using field instruments.

Step 8 – Forward Water Flow
The arsenic removal vessel manifold is reconfigured for forward flow with discharge directed to the Regeneration Wastewater Tank. Water from the upstream Production Water Circuit is conveyed through the arsenic removal media to re-pack media. Media effluent is directed to the vacuum truck for offsite disposal during this process. The pH and arsenic concentration of vessel effluent is monitored periodically using field instruments. Upon observation of a vessel effluent arsenic concentration below 10 µg/L (as measured by field instruments), flow is redirected from the vacuum truck to the East Pond. Approximately 15,000 to 20,000 gallons of water is typically conveyed through each vessel and discharged to the East Pond.

Notes:
Wastewater generated during the media regeneration process is collected by a licensed waste hauling contractor and transported to an appropriate disposal facility. Up to 70,000 gallons of wastewater is typically generated for offsite disposal during each regeneration event.

APPENDIX J

COMPOSITE SAMPLE LABORATORY REPORTS

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WORK ORDER NUMBER: 16-02-0666

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: ISCO Sample 020616

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

Approved for release on 02/18/2016 by:
Stephen Nowak
Project Manager

ResultLink ▸

Email your PM ▸

ACCREDITED IN ACCORDANCE WITH nelac

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Contents

Client Project Name: ISCO Sample 020616
Work Order Number: 16-02-0666

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Work Order Narrative

Work Order: 16-02-0666 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 02/09/16. They were assigned to Work Order 16-02-0666.

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.

Sample FP-020616 could not be tested for Alkalinity due to the acidic nature of the sample.

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Sample Summary

Client:	Geosyntec Consultants	Work Order:	16-02-0666
	924 Anacapa Street, Suite 4A	Project Name:	ISCO Sample 020616
	Santa Barbara, CA 93101-2177	PO Number:	
		Date/Time Received:	02/09/16 10:20
		Number of Containers:	34
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
EP-020616	16-02-0666-1	02/06/16 03:40	17	Aqueous
FP-020616	16-02-0666-2	02/06/16 04:00	16	Aqueous
QCTB-01-020616	16-02-0666-3	02/06/16 00:00	1	Aqueous

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Detections Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order: Project Name: Received:	16-02-0666 ISCO Sample 020616 02/09/16
Attn:	Ryan Smith		Page 1 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
EP-020616 (16-02-0666-1)						
Calcium	23.3		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.07		0.100	mg/L	EPA 200.7	N/A
Sodium	32.2	B	0.500	mg/L	EPA 200.7	N/A
Chloride	80		1.0	mg/L	EPA 300.0	N/A
Sulfate	42		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00106		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.00304		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00670		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00138		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.0130		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00639		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	92.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	92.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	155		1.00	mg/L	SM 2540 C	N/A
pH	7.64	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Total Kjeldahl Nitrogen	0.91		0.50	mg/L	SM 4500 N Org B	N/A
Phosphorus, Total	0.10		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.32		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.29		0.10	mg/L	SM 4500-NO3 E	N/A
Total Nitrogen	1.2		0.50	mg/L	Total Nitrogen by Calc	N/A

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* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order: Project Name: Received:	16-02-0666 ISCO Sample 020616 02/09/16
Attn:	Ryan Smith		Page 2 of 2

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
FP-020616 (16-02-0666-2)						
Calcium	38.5		0.100	mg/L	EPA 200.7	N/A
Magnesium	2.58		0.100	mg/L	EPA 200.7	N/A
Sodium	80.1	B	0.500	mg/L	EPA 200.7	N/A
Chloride	3.9		1.0	mg/L	EPA 300.0	N/A
Sulfate	33		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00843		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.00672		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.171		0.00100	mg/L	EPA 6020	EPA 3020A Total
Cadmium	0.00444		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.0128		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.292		0.00100	mg/L	EPA 6020	EPA 3020A Total
Lead	0.00935		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00340		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.0141		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.372		0.00500	mg/L	EPA 6020	EPA 3020A Total
Acetone	25		20	ug/L	EPA 8260B	EPA 5030C
Solids, Total Dissolved	450		1.00	mg/L	SM 2540 C	N/A
pH	2.99	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	76		20	mg/L	SM 4500 P B/E	N/A
Total Phosphate	230		62	mg/L	SM 4500 P B/E	N/A
Ammonia (as N)	0.17		0.10	mg/L	SM 4500-NH3 B/C	N/A
Nitrate-Nitrite (as N)	22		2.5	mg/L	SM 4500-NO3 E	N/A
MBAS	4.0	BV,BU	2.0	mg/L	SM 5540C	N/A
Total Nitrogen	23		2.5	mg/L	Total Nitrogen by Calc	N/A

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

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* MDL is shown

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Analytical Report

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 300.0
	Units: mg/L
Project: ISCO Sample 020616	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-020616	**16-02-0666-1-P**	**02/06/16 03:40**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 22:57**	**160209L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	80	1.0	1.00	
Sulfate	42	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-020616	**16-02-0666-2-N**	**02/06/16 04:00**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 23:16**	**160209L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	3.9	1.0	1.00	
Sulfate	33	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	**099-12-906-6455**	**N/A**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 11:06**	**160209L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 200.7
	Units: mg/L
Project: ISCO Sample 020616	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-020616	**16-02-0666-1-J**	**02/06/16 03:40**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 19:03**	**160210LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	23.3	0.100	1.00	
Magnesium	2.07	0.100	1.00	
Sodium	32.2	0.500	1.00	B

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-020616	**16-02-0666-2-J**	**02/06/16 04:00**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 19:05**	**160210LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	38.5	0.100	1.00	
Magnesium	2.58	0.100	1.00	
Sodium	80.1	0.500	1.00	B

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-012-6463**	**N/A**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 18:31**	**160210LA3**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	0.815	0.500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: ISCO Sample 020616			Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-020616	**16-02-0666-1-L**	**02/06/16 03:40**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/11/16 21:59**	**160209LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00106	0.00100	1.00	
Arsenic	0.00304	0.00100	1.00	
Barium	0.00670	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00138	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.0130	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.00639	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: ISCO Sample 020616			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-020616	**16-02-0666-2-L**	**02/06/16 04:00**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/11/16 22:11**	**160209LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00843	0.00100	1.00	
Arsenic	0.00672	0.00100	1.00	
Barium	0.171	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	0.00444	0.00100	1.00	
Chromium	0.0128	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.292	0.00100	1.00	
Lead	0.00935	0.00100	1.00	
Molybdenum	0.00340	0.00100	1.00	
Nickel	0.0141	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.372	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: ISCO Sample 020616			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5090**	**N/A**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/10/16 20:01**	**160209LA1**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Total
	Method: EPA 7470A
	Units: mg/L
Project: ISCO Sample 020616	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-020616	**16-02-0666-1-L**	**02/06/16 03:40**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:09**	**160215LA2**

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
FP-020616	**16-02-0666-2-L**	**02/06/16 04:00**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:16**	**160215LA2**

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	**099-04-008-7756**	**N/A**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:05**	**160215LA2**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: ISCO Sample 020616			Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-020616	**16-02-0666-1-F**	**02/06/16 03:40**	**Aqueous**	**GC/MS TT**	**02/10/16**	**02/10/16 18:22**	**160210L01**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.8	1.00	
Acenaphthylene	ND	9.8	1.00	
Aniline	ND	9.8	1.00	
Anthracene	ND	9.8	1.00	
Azobenzene	ND	9.8	1.00	
Benzidine	ND	49	1.00	
Benzo (a) Anthracene	ND	9.8	1.00	
Benzo (a) Pyrene	ND	9.8	1.00	
Benzo (b) Fluoranthene	ND	9.8	1.00	
Benzo (g,h,i) Perylene	ND	9.8	1.00	
Benzo (k) Fluoranthene	ND	9.8	1.00	
Benzoic Acid	ND	49	1.00	
Benzyl Alcohol	ND	9.8	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.8	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.8	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.8	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.8	1.00	
Butyl Benzyl Phthalate	ND	9.8	1.00	
4-Chloro-3-Methylphenol	ND	9.8	1.00	
4-Chloroaniline	ND	9.8	1.00	
2-Chloronaphthalene	ND	9.8	1.00	
2-Chlorophenol	ND	9.8	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.8	1.00	
Chrysene	ND	9.8	1.00	
2,6-Dichlorophenol	ND	9.8	1.00	
Di-n-Butyl Phthalate	ND	9.8	1.00	
Di-n-Octyl Phthalate	ND	9.8	1.00	
Dibenz (a,h) Anthracene	ND	9.8	1.00	
Dibenzofuran	ND	9.8	1.00	
1,2-Dichlorobenzene	ND	9.8	1.00	
1,3-Dichlorobenzene	ND	9.8	1.00	
1,4-Dichlorobenzene	ND	9.8	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.8	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: ISCO Sample 020616			Page 2 of 6

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.8	1.00	
Dimethyl Phthalate	ND	9.8	1.00	
2,4-Dimethylphenol	ND	9.8	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.8	1.00	
2,6-Dinitrotoluene	ND	9.8	1.00	
Fluoranthene	ND	9.8	1.00	
Fluorene	ND	9.8	1.00	
Hexachloro-1,3-Butadiene	ND	9.8	1.00	
Hexachlorobenzene	ND	9.8	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.8	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.8	1.00	
Isophorone	ND	9.8	1.00	
2-Methylnaphthalene	ND	9.8	1.00	
1-Methylnaphthalene	ND	9.8	1.00	
2-Methylphenol	ND	9.8	1.00	
3/4-Methylphenol	ND	9.8	1.00	
N-Nitroso-di-n-propylamine	ND	9.8	1.00	
N-Nitrosodimethylamine	ND	9.8	1.00	
N-Nitrosodiphenylamine	ND	9.8	1.00	
Naphthalene	ND	9.8	1.00	
4-Nitroaniline	ND	9.8	1.00	
3-Nitroaniline	ND	9.8	1.00	
2-Nitroaniline	ND	9.8	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.8	1.00	
2-Nitrophenol	ND	9.8	1.00	
Pentachlorophenol	ND	9.8	1.00	
Phenanthrene	ND	9.8	1.00	
Phenol	ND	9.8	1.00	
Pyrene	ND	9.8	1.00	
Pyridine	ND	9.8	1.00	
1,2,4-Trichlorobenzene	ND	9.8	1.00	
2,4,6-Trichlorophenol	ND	9.8	1.00	
2,4,5-Trichlorophenol	ND	9.8	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: ISCO Sample 020616			Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	50-110	
2-Fluorophenol	48	20-110	
Nitrobenzene-d5	92	40-110	
p-Terphenyl-d14	102	50-135	
Phenol-d6	31	10-115	
2,4,6-Tribromophenol	82	40-125	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: ISCO Sample 020616			Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-52**	**N/A**	**Aqueous**	**GC/MS TT**	**02/10/16**	**02/10/16 14:30**	**160210L01**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: ISCO Sample 020616			Page 5 of 6

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: ISCO Sample 020616			Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	59	50-110	
2-Fluorophenol	56	20-110	
Nitrobenzene-d5	94	40-110	
p-Terphenyl-d14	90	50-135	
Phenol-d6	35	10-115	
2,4,6-Tribromophenol	80	40-125	

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

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Analytical Report

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

Date Received:	02/09/16
Work Order:	16-02-0666
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L

Project: ISCO Sample 020616

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-020616	**16-02-0666-1-B**	**02/06/16 03:40**	**Aqueous**	**GC/MS XX**	**02/11/16**	**02/11/16 18:53**	**160211L069**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 2 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	94	80-120	
Dibromofluoromethane	102	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	98	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 3 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-020616	**16-02-0666-2-A**	**02/06/16 04:00**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/11/16 05:51**	**160210L051**

Parameter	Result	RL	DF	Qualifiers
Acetone	25	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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			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	95	80-120	
Dibromofluoromethane	91	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	98	80-120	

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

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Analytical Report

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

Date Received:	02/09/16
Work Order:	16-02-0666
Preparation:	EPA 5030C
Method:	EPA 8260B
Units:	ug/L

Project: ISCO Sample 020616

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-01-020616	**16-02-0666-3-A**	**02/06/16 00:00**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/10/16 16:21**	**160210L012**

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.

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			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	96	80-120	
Dibromofluoromethane	101	78-126	
1,2-Dichloroethane-d4	97	75-135	
Toluene-d8	100	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 7 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2588**	**N/A**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/10/16 15:25**	**160210L012**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 8 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	95	80-120	
Dibromofluoromethane	101	78-126	
1,2-Dichloroethane-d4	97	75-135	
Toluene-d8	97	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 9 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2594**	**N/A**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/11/16 04:00**	**160210L051**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 10 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	96	80-120	
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	100	75-135	
Toluene-d8	96	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			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	**099-14-316-2601**	**N/A**	**Aqueous**	**GC/MS XX**	**02/11/16**	**02/11/16 14:13**	**160211L069**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: ISCO Sample 020616			Page 12 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	93	80-120	
Dibromofluoromethane	106	78-126	
1,2-Dichloroethane-d4	105	75-135	
Toluene-d8	97	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177			
Project: ISCO Sample 020616			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
EP-020616	**16-02-0666-1**	**02/06/16 03:40**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	92.0	1.00	1.00		mg/L	N/A	02/15/16	SM 2320B
Bicarbonate (as CaCO3)	92.0	1.00	1.00		mg/L	N/A	02/15/16	SM 2320B
Solids, Total Dissolved	155	1.00	1.00		mg/L	02/11/16	02/11/16	SM 2540 C
pH	7.64	0.01	1.00	BV,BU	pH units	N/A	02/09/16	SM 4500 H+ B
Total Kjeldahl Nitrogen	0.91	0.50	1.00		mg/L	02/15/16	02/15/16	SM 4500 N Org B
Phosphorus, Total	0.10	0.10	1.00		mg/L	02/15/16	02/15/16	SM 4500 P B/E
Total Phosphate	0.32	0.31	1.00		mg/L	02/15/16	02/15/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	02/12/16	02/12/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.29	0.10	1.00		mg/L	02/12/16	02/12/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00	BV,BU	mg/L	02/09/16	02/09/16	SM 5540C
Total Nitrogen	1.2	0.50	1.00		mg/L	N/A	02/17/16	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
FP-020616	**16-02-0666-2**	**02/06/16 04:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Solids, Total Dissolved	450	1.00	1.00		mg/L	02/11/16	02/11/16	SM 2540 C
pH	2.99	0.01	1.00	BV,BU	pH units	N/A	02/09/16	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.3	0.50	1.00		mg/L	02/15/16	02/15/16	SM 4500 N Org B
Phosphorus, Total	76	20	200		mg/L	02/15/16	02/15/16	SM 4500 P B/E
Total Phosphate	230	62	200		mg/L	02/15/16	02/15/16	SM 4500 P B/E
Ammonia (as N)	0.17	0.10	1.00		mg/L	02/12/16	02/12/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	22	2.5	25.0		mg/L	02/12/16	02/12/16	SM 4500-NO3 E
MBAS	4.0	2.0	20.0	BV,BU	mg/L	02/09/16	02/09/16	SM 5540C
Total Nitrogen	23	2.5	5.00		mg/L	N/A	02/17/16	Total Nitrogen by Calc

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	02/15/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	02/15/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	02/11/16	02/11/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	02/15/16	02/15/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	02/15/16	02/15/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	02/15/16	02/15/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	02/12/16	02/12/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	02/12/16	02/12/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	02/09/16	02/09/16	SM 5540C

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

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: ISCO Sample 020616			Page 1 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-0653-3	**Sample**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 11:44**	**160209S01**
16-02-0653-3	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 20:16**	**160209S01**
16-02-0653-3	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 20:35**	**160209S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	281.5	50.00	342.2	121	340.8	119	80-120	0	0-20	3
Sulfate	14.89	50.00	67.74	106	67.82	106	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: ISCO Sample 020616	Page 2 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-020616	**Sample**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215TPS1**
FP-020616	**Matrix Spike**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215TPS1**
FP-020616	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	76.46	80.00	156.1	100	156.1	100	70-130	0	0-25	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: N/A
Method: SM 4500 P B/E

Project: ISCO Sample 020616

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-020616	**Sample**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215PO4S1**
FP-020616	**Matrix Spike**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215PO4S1**
FP-020616	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	234.0	244.0	477.8	100	477.6	100	70-130	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: ISCO Sample 020616			Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EP-020616	**Sample**	**Aqueous**	**UV 7**	**02/12/16**	**02/12/16 21:11**	**G0212NO3S1**
EP-020616	**Matrix Spike**	**Aqueous**	**UV 7**	**02/12/16**	**02/12/16 21:11**	**G0212NO3S1**
EP-020616	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**02/12/16**	**02/12/16 21:11**	**G0212NO3S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.2852	0.5000	0.7021	83	0.6791	79	70-130	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: ISCO Sample 020616			Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-020616	**Sample**	**Aqueous**	**UV 8**	**02/09/16**	**02/09/16 20:21**	**G0209SURS1**
FP-020616	**Matrix Spike**	**Aqueous**	**UV 8**	**02/09/16**	**02/09/16 20:21**	**G0209SURS1**
FP-020616	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**02/09/16**	**02/09/16 20:21**	**G0209SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	4.040	20.00	22.60	93	22.40	92	70-130	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received:	02/09/16
Work Order:	16-02-0666
Preparation:	N/A
Method:	EPA 200.7

Project: ISCO Sample 020616

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-0710-1	**Sample**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 19:09**	**160210SA3**
16-02-0710-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 19:10**	**160210SA3**
16-02-0710-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 19:12**	**160210SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	18.36	0.5000	20.06	4X	19.24	4X	80-120	4X	0-20	Q
Magnesium	1.388	0.5000	1.944	111	1.898	102	80-120	2	0-20	
Sodium	35.91	5.000	43.74	4X	41.24	4X	80-120	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
Project: ISCO Sample 020616	Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-0681-1	**Sample**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/10/16 16:16**	**160209SA1**
16-02-0681-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/10/16 16:05**	**160209SA1**
16-02-0681-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/10/16 16:07**	**160209SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	0.002146	0.1000	0.1140	112	0.1123	110	85-133	1	0-11	
Arsenic	0.006937	0.1000	0.1261	119	0.1192	112	73-127	6	0-11	
Barium	0.2690	0.1000	0.4091	140	0.3954	126	74-128	3	0-10	3
Beryllium	ND	0.1000	0.09710	97	0.09181	92	56-122	6	0-11	
Cadmium	ND	0.1000	0.1076	108	0.1048	105	84-114	3	0-8	
Chromium	0.001154	0.1000	0.1160	115	0.1055	104	73-133	9	0-11	
Cobalt	ND	0.1000	0.1106	111	0.1067	107	79-121	4	0-10	
Copper	0.002692	0.1000	0.1034	101	0.1006	98	72-108	3	0-10	
Lead	ND	0.1000	0.1202	120	0.1181	118	79-121	2	0-10	
Molybdenum	0.004755	0.1000	0.1332	128	0.1362	131	83-137	2	0-10	
Nickel	0.006522	0.1000	0.1116	105	0.1078	101	68-122	3	0-10	
Selenium	ND	0.1000	0.05947	59	0.05571	56	59-125	7	0-12	3
Silver	ND	0.05000	0.05718	114	0.05499	110	68-128	4	0-14	
Thallium	ND	0.1000	0.1194	119	0.1175	118	73-121	2	0-11	
Vanadium	ND	0.1000	0.1147	115	0.1105	111	77-137	4	0-15	
Zinc	0.05235	0.1000	0.1556	103	0.1418	89	43-145	9	0-39	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Total
	Method: EPA 7470A
Project: ISCO Sample 020616	Page 8 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EP-020616	**Sample**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:09**	**160215SA2**
EP-020616	**Matrix Spike**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:12**	**160215SA2**
EP-020616	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:14**	**160215SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.009276	93	0.01002	100	55-133	8	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: EPA 5030C
Method: EPA 8260B

Project: ISCO Sample 020616

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-0867-1	**Sample**	**Aqueous**	**GC/MS XX**	**02/11/16**	**02/11/16 15:23**	**160211S037**
16-02-0867-1	**Matrix Spike**	**Aqueous**	**GC/MS XX**	**02/11/16**	**02/11/16 11:53**	**160211S037**
16-02-0867-1	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS XX**	**02/11/16**	**02/11/16 12:28**	**160211S037**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	48.12	96	46.48	93	22-178	3	0-26	
Benzene	45.70	50.00	94.08	97	96.04	101	70-130	2	0-20	
Bromobenzene	ND	50.00	51.75	103	51.49	103	70-130	0	0-20	
Bromochloromethane	ND	50.00	50.46	101	49.77	100	70-132	1	0-20	
Bromodichloromethane	ND	50.00	49.00	98	48.66	97	69-135	1	0-20	
Bromoform	ND	50.00	47.57	95	47.60	95	70-133	0	0-20	
Bromomethane	ND	50.00	27.16	54	26.16	52	11-167	4	0-32	
2-Butanone	ND	50.00	48.61	97	49.29	99	39-159	1	0-21	
n-Butylbenzene	2.002	50.00	65.26	127	64.76	126	62-152	1	0-28	
sec-Butylbenzene	ND	50.00	61.27	123	60.54	121	70-143	1	0-24	
tert-Butylbenzene	ND	50.00	61.22	122	60.79	122	70-140	1	0-20	
Carbon Disulfide	ND	50.00	50.31	101	50.06	100	54-138	0	0-23	
Carbon Tetrachloride	ND	50.00	51.75	103	50.50	101	63-153	2	0-22	
Chlorobenzene	ND	50.00	48.90	98	48.62	97	70-130	1	0-20	
Chloroethane	ND	50.00	53.43	107	54.11	108	44-140	1	0-32	
Chloroform	1.142	50.00	50.93	100	50.32	98	68-134	1	0-20	
Chloromethane	ND	50.00	34.94	70	34.71	69	20-158	1	0-40	
2-Chlorotoluene	2.360	50.00	56.06	107	55.51	106	70-137	1	0-20	
4-Chlorotoluene	2.186	50.00	56.83	109	56.37	108	70-130	1	0-20	
Dibromochloromethane	ND	50.00	48.17	96	47.93	96	70-133	1	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	50.76	102	51.61	103	67-133	2	0-20	
1,2-Dibromoethane	ND	50.00	50.76	102	50.89	102	70-130	0	0-20	
Dibromomethane	ND	50.00	50.29	101	49.69	99	70-130	1	0-20	
1,2-Dichlorobenzene	ND	50.00	51.75	103	51.66	103	70-130	0	0-20	
1,3-Dichlorobenzene	ND	50.00	52.94	106	52.70	105	70-130	0	0-20	
1,4-Dichlorobenzene	ND	50.00	49.41	99	49.35	99	70-130	0	0-20	
Dichlorodifluoromethane	ND	50.00	49.68	99	48.48	97	10-190	2	0-40	
1,1-Dichloroethane	ND	50.00	54.41	109	53.96	108	64-130	1	0-20	
1,2-Dichloroethane	1.972	50.00	47.83	92	47.44	91	69-135	1	0-20	
1,1-Dichloroethene	ND	50.00	52.92	106	51.58	103	51-153	3	0-21	
c-1,2-Dichloroethene	ND	50.00	56.05	112	55.79	112	56-146	0	0-20	
t-1,2-Dichloroethene	ND	50.00	47.57	95	47.47	95	68-134	0	0-20	
1,2-Dichloropropane	ND	50.00	53.28	107	52.62	105	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	51.84	104	51.73	103	70-130	0	0-20	
2,2-Dichloropropane	ND	50.00	63.24	126	61.78	124	37-169	2	0-23	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
Project: ISCO Sample 020616	Page 10 of 12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	54.01	108	53.15	106	66-132	2	0-20	
c-1,3-Dichloropropene	ND	50.00	63.47	127	62.84	126	67-139	1	0-20	
t-1,3-Dichloropropene	ND	50.00	56.10	112	55.79	112	58-136	1	0-20	
Ethylbenzene	30.58	50.00	85.44	110	85.58	110	70-134	0	0-24	
2-Hexanone	ND	50.00	55.46	111	56.95	114	59-149	3	0-20	
Isopropylbenzene	3.316	50.00	63.44	120	62.98	119	70-141	1	0-27	
p-Isopropyltoluene	ND	50.00	59.75	119	59.60	119	65-143	0	0-39	
Methylene Chloride	ND	50.00	56.20	112	56.83	114	69-130	1	0-21	
4-Methyl-2-Pentanone	ND	50.00	56.45	113	57.35	115	67-139	2	0-20	
Naphthalene	ND	50.00	65.27	131	66.48	133	61-139	2	0-20	
n-Propylbenzene	10.84	50.00	66.75	112	66.36	111	70-140	1	0-24	
Styrene	ND	50.00	56.29	113	56.18	112	18-174	0	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	49.80	100	49.51	99	70-135	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	50.03	100	50.54	101	70-137	1	0-20	
Tetrachloroethene	ND	50.00	44.12	88	43.06	86	33-147	2	0-30	
Toluene	4.434	50.00	57.24	106	56.57	104	70-130	1	0-20	
1,2,3-Trichlorobenzene	ND	50.00	57.80	116	57.88	116	64-142	0	0-22	
1,2,4-Trichlorobenzene	ND	50.00	61.39	123	61.11	122	60-144	0	0-24	
1,1,1-Trichloroethane	ND	50.00	53.82	108	52.84	106	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	49.30	99	46.89	94	21-190	5	0-40	
1,1,2-Trichloroethane	ND	50.00	48.08	96	48.04	96	70-130	0	0-20	
Trichloroethene	ND	50.00	54.62	109	53.60	107	42-156	2	0-20	
Trichlorofluoromethane	ND	50.00	53.59	107	52.67	105	54-162	2	0-30	
1,2,3-Trichloropropane	ND	50.00	48.90	98	49.51	99	67-130	1	0-20	
1,2,4-Trimethylbenzene	109.3	50.00	159.7	101	162.1	106	70-133	2	0-20	
1,3,5-Trimethylbenzene	20.42	50.00	78.42	116	78.33	116	70-139	0	0-20	
Vinyl Acetate	ND	50.00	61.87	124	64.51	129	10-190	4	0-40	
Vinyl Chloride	ND	50.00	41.09	82	41.37	83	59-137	1	0-20	
p/m-Xylene	55.68	100.0	169.5	114	169.0	113	67-145	0	0-28	
o-Xylene	10.22	50.00	71.68	123	71.71	123	70-142	0	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	50.25	101	50.95	102	69-130	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: EPA 5030C
Method: EPA 8260B

Project: ISCO Sample 020616

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-0628-6	**Sample**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/10/16 15:53**	**160210S043**
16-02-0628-6	**Matrix Spike**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/10/16 13:33**	**160210S043**
16-02-0628-6	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/10/16 14:01**	**160210S043**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	42.20	84	42.03	84	22-178	0	0-26	
Benzene	ND	50.00	52.77	106	53.02	106	70-130	0	0-20	
Bromobenzene	ND	50.00	54.94	110	54.35	109	70-130	1	0-20	
Bromochloromethane	ND	50.00	57.59	115	52.71	105	70-132	9	0-20	
Bromodichloromethane	ND	50.00	50.08	100	51.39	103	69-135	3	0-20	
Bromoform	ND	50.00	47.92	96	48.87	98	70-133	2	0-20	
Bromomethane	ND	50.00	50.08	100	41.84	84	11-167	18	0-32	
2-Butanone	ND	50.00	46.44	93	43.93	88	39-159	6	0-21	
n-Butylbenzene	ND	50.00	58.95	118	55.96	112	62-152	5	0-28	
sec-Butylbenzene	ND	50.00	56.64	113	55.29	111	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	59.17	118	57.77	116	70-140	2	0-20	
Carbon Disulfide	ND	50.00	52.38	105	50.65	101	54-138	3	0-23	
Carbon Tetrachloride	ND	50.00	57.21	114	57.84	116	63-153	1	0-22	
Chlorobenzene	ND	50.00	52.34	105	52.27	105	70-130	0	0-20	
Chloroethane	ND	50.00	42.91	86	41.54	83	44-140	3	0-32	
Chloroform	ND	50.00	53.66	107	51.70	103	68-134	4	0-20	
Chloromethane	ND	50.00	44.80	90	43.72	87	20-158	2	0-40	
2-Chlorotoluene	ND	50.00	55.35	111	53.98	108	70-137	3	0-20	
4-Chlorotoluene	ND	50.00	52.76	106	52.85	106	70-130	0	0-20	
Dibromochloromethane	ND	50.00	54.01	108	52.28	105	70-133	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	49.79	100	50.75	101	67-133	2	0-20	
1,2-Dibromoethane	ND	50.00	50.34	101	52.04	104	70-130	3	0-20	
Dibromomethane	ND	50.00	53.56	107	50.80	102	70-130	5	0-20	
1,2-Dichlorobenzene	ND	50.00	50.79	102	51.51	103	70-130	1	0-20	
1,3-Dichlorobenzene	ND	50.00	51.05	102	51.99	104	70-130	2	0-20	
1,4-Dichlorobenzene	ND	50.00	52.30	105	53.03	106	70-130	1	0-20	
Dichlorodifluoromethane	ND	50.00	53.23	106	47.49	95	10-190	11	0-40	
1,1-Dichloroethane	ND	50.00	54.16	108	52.36	105	64-130	3	0-20	
1,2-Dichloroethane	ND	50.00	51.92	104	51.09	102	69-135	2	0-20	
1,1-Dichloroethene	ND	50.00	54.44	109	53.46	107	51-153	2	0-21	
c-1,2-Dichloroethene	71.08	50.00	120.0	98	98.97	56	56-146	19	0-20	
t-1,2-Dichloroethene	1.189	50.00	51.66	101	50.82	99	68-134	2	0-20	
1,2-Dichloropropane	ND	50.00	50.56	101	52.14	104	70-130	3	0-20	
1,3-Dichloropropane	ND	50.00	51.52	103	51.58	103	70-130	0	0-20	
2,2-Dichloropropane	ND	50.00	66.99	134	64.95	130	37-169	3	0-23	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: EPA 5030C
Method: EPA 8260B

Project: ISCO Sample 020616

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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	53.27	107	51.75	103	66-132	3	0-20	
c-1,3-Dichloropropene	ND	50.00	59.65	119	58.33	117	67-139	2	0-20	
t-1,3-Dichloropropene	ND	50.00	56.51	113	55.89	112	58-136	1	0-20	
Ethylbenzene	ND	50.00	57.23	114	56.04	112	70-134	2	0-24	
2-Hexanone	ND	50.00	56.92	114	52.37	105	59-149	8	0-20	
Isopropylbenzene	ND	50.00	58.61	117	56.85	114	70-141	3	0-27	
p-Isopropyltoluene	ND	50.00	57.50	115	55.89	112	65-143	3	0-39	
Methylene Chloride	ND	50.00	51.97	104	51.87	104	69-130	0	0-21	
4-Methyl-2-Pentanone	ND	50.00	54.58	109	52.35	105	67-139	4	0-20	
Naphthalene	ND	50.00	59.40	119	56.04	112	61-139	6	0-20	
n-Propylbenzene	ND	50.00	56.15	112	53.58	107	70-140	5	0-24	
Styrene	ND	50.00	54.67	109	53.30	107	18-174	3	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	53.28	107	53.70	107	70-135	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	59.47	119	60.09	120	70-137	1	0-20	
Tetrachloroethene	ND	50.00	47.15	94	46.53	93	33-147	1	0-30	
Toluene	ND	50.00	54.11	108	53.34	107	70-130	1	0-20	
1,2,3-Trichlorobenzene	ND	50.00	54.75	110	52.68	105	64-142	4	0-22	
1,2,4-Trichlorobenzene	ND	50.00	56.00	112	54.31	109	60-144	3	0-24	
1,1,1-Trichloroethane	ND	50.00	58.01	116	57.26	115	68-140	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	51.02	102	48.96	98	21-190	4	0-40	
1,1,2-Trichloroethane	ND	50.00	51.73	103	51.90	104	70-130	0	0-20	
Trichloroethene	2.416	50.00	49.90	95	48.04	91	42-156	4	0-20	
Trichlorofluoromethane	ND	50.00	54.44	109	49.31	99	54-162	10	0-30	
1,2,3-Trichloropropane	ND	50.00	48.47	97	48.30	97	67-130	0	0-20	
1,2,4-Trimethylbenzene	ND	50.00	54.84	110	53.86	108	70-133	2	0-20	
1,3,5-Trimethylbenzene	ND	50.00	57.82	116	55.67	111	70-139	4	0-20	
Vinyl Acetate	ND	50.00	60.21	120	57.71	115	10-190	4	0-40	
Vinyl Chloride	13.06	50.00	62.96	100	59.70	93	59-137	5	0-20	
p/m-Xylene	ND	100.0	112.0	112	109.9	110	67-145	2	0-28	
o-Xylene	ND	50.00	55.98	112	55.25	111	70-142	1	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	49.99	100	50.02	100	69-130	0	0-20	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
Project: ISCO Sample 020616	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-02-0681-1	**Sample**	**Aqueous**	**ICP/MS 03**	**02/09/16 00:00**	**02/10/16 16:16**	**160209SA1**
16-02-0681-1	**PDS**	**Aqueous**	**ICP/MS 03**	**02/09/16 00:00**	**02/10/16 16:09**	**160209SA1**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	0.002146	0.1000	0.1079	106	75-125	
Arsenic	0.006937	0.1000	0.1140	107	75-125	
Barium	0.2690	0.1000	0.3795	111	75-125	
Beryllium	ND	0.1000	0.09055	91	75-125	
Cadmium	ND	0.1000	0.09703	97	75-125	
Chromium	0.001154	0.1000	0.09922	98	75-125	
Cobalt	ND	0.1000	0.1034	103	75-125	
Copper	0.002692	0.1000	0.09780	95	75-125	
Lead	ND	0.1000	0.1134	113	75-125	
Molybdenum	0.004755	0.1000	0.1303	126	75-125	5
Nickel	0.006522	0.1000	0.1056	99	75-125	
Selenium	ND	0.1000	0.08530	85	75-125	
Silver	ND	0.05000	0.04721	94	75-125	
Thallium	ND	0.1000	0.1128	113	75-125	
Vanadium	ND	0.1000	0.1071	107	75-125	
Zinc	0.05235	0.1000	0.1361	84	75-125	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: ISCO Sample 020616			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-0717-3	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/15/16 21:15**	**G0215ALKD1**
16-02-0717-3	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/15/16 21:15**	**G0215ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	155.0	154.0	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

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

Project: ISCO Sample 020616

Date Received:	02/09/16
Work Order:	16-02-0666
Preparation:	N/A
Method:	SM 2320B

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-0717-3	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/15/16 21:15**	**G0215HCOD1**
16-02-0717-3	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/15/16 21:15**	**G0215HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	155.0	154.0	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2540 C
Project: ISCO Sample 020616	Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-0619-10	**Sample**	**Aqueous**	**N/A**	**02/11/16 00:00**	**02/11/16 18:00**	**G0211TDSD3**
16-02-0619-10	**Sample Duplicate**	**Aqueous**	**N/A**	**02/11/16 00:00**	**02/11/16 18:00**	**G0211TDSD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	24220	24560	1	0-20	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 H+ B
Project: ISCO Sample 020616	Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-0684-2	**Sample**	**Aqueous**	**PH 1**	**N/A**	**02/09/16 22:08**	**G0209PHD1**
16-02-0684-2	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**02/09/16 22:08**	**G0209PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	7.930	7.980	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 N Org B
Project: ISCO Sample 020616	Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-0668-1	**Sample**	**Aqueous**	**BUR05**	**02/15/16 00:00**	**02/15/16 18:30**	**G0215TKND1**
16-02-0668-1	**Sample Duplicate**	**Aqueous**	**BUR05**	**02/15/16 00:00**	**02/15/16 18:30**	**G0215TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	42.28	43.12	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 300.0
Project: ISCO Sample 020616	Page 1 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6455	**LCS**	**Aqueous**	**IC 10**	**N/A**	**02/09/16 11:25**	**160209L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.34	99	90-110	
Sulfate	50.00	49.37	99	90-110	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: ISCO Sample 020616			Page 2 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-939	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/15/16 21:15**	**G0215ALKB1**
099-15-859-939	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/15/16 21:15**	**G0215ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	99.00	99	100.0	100	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

eurofins Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2540 C
Project: ISCO Sample 020616	Page 3 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4956	**LCS**	**Aqueous**	**N/A**	**02/11/16**	**02/11/16 18:00**	**G0211TDSL3**
099-12-180-4956	**LCSD**	**Aqueous**	**N/A**	**02/11/16**	**02/11/16 18:00**	**G0211TDSL3**

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	90.00	90	80-120	6	0-20	

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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: 02/09/16
Work Order: 16-02-0666
Preparation: N/A
Method: SM 4500 P B/E

Project: ISCO Sample 020616

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2729	**LCS**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215TPL1**
099-05-098-2729	**LCSD**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4429	111	0.4402	110	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

eurofins Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: ISCO Sample 020616	Page 5 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-186	**LCS**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215PO4L1**
099-14-276-186	**LCSD**	**Aqueous**	**UV 7**	**02/15/16**	**02/15/16 19:30**	**G0215PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.355	111	1.347	110	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

eurofins Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NH3 B/C
Project: ISCO Sample 020616			Page 6 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2287	**LCS**	**Aqueous**	**BUR05**	**02/12/16**	**02/12/16 19:17**	**G0212NH3L2**
099-12-814-2287	**LCSD**	**Aqueous**	**BUR05**	**02/12/16**	**02/12/16 19:17**	**G0212NH3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.396	88	4.368	87	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: ISCO Sample 020616			Page 7 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-389	**LCS**	**Aqueous**	**UV 7**	**02/12/16**	**02/12/16 21:11**	**G0212NO3L1**
099-14-282-389	**LCSD**	**Aqueous**	**UV 7**	**02/12/16**	**02/12/16 21:11**	**G0212NO3L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.4668	93	0.4945	99	80-120	6	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: ISCO Sample 020616			Page 8 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3018	**LCS**	**Aqueous**	**UV 8**	**02/09/16**	**02/09/16 20:21**	**G0209SURL1**
099-05-093-3018	**LCSD**	**Aqueous**	**UV 8**	**02/09/16**	**02/09/16 20:21**	**G0209SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9700	97	0.9500	95	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 200.7
Project: ISCO Sample 020616	Page 9 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6463	**LCS**	**Aqueous**	**ICP 7300**	**02/10/16**	**02/10/16 18:33**	**160210LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5020	100	85-115	
Magnesium	0.5000	0.4783	96	85-115	
Sodium	5.000	5.718	114	85-115	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
Project: ISCO Sample 020616	Page 10 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5090	**LCS**	**Aqueous**	**ICP/MS 03**	**02/09/16**	**02/10/16 20:04**	**160209LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1070	107	80-120	73-127	
Arsenic	0.1000	0.1078	108	80-120	73-127	
Barium	0.1000	0.1059	106	80-120	73-127	
Beryllium	0.1000	0.1020	102	80-120	73-127	
Cadmium	0.1000	0.1036	104	80-120	73-127	
Chromium	0.1000	0.1033	103	80-120	73-127	
Cobalt	0.1000	0.1077	108	80-120	73-127	
Copper	0.1000	0.1081	108	80-120	73-127	
Lead	0.1000	0.1084	108	80-120	73-127	
Molybdenum	0.1000	0.1067	107	80-120	73-127	
Nickel	0.1000	0.1078	108	80-120	73-127	
Selenium	0.1000	0.08998	90	80-120	73-127	
Silver	0.05000	0.04591	92	80-120	73-127	
Thallium	0.1000	0.1055	106	80-120	73-127	
Vanadium	0.1000	0.1061	106	80-120	73-127	
Zinc	0.1000	0.1011	101	80-120	73-127	

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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

RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: ISCO Sample 020616			Page 11 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7756	**LCS**	**Aqueous**	**Mercury 04**	**02/15/16**	**02/15/16 20:07**	**160215LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009267	93	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: EPA 3510C
Method: EPA 8270C

Project: ISCO Sample 020616

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-52	**LCS**	**Aqueous**	**GC/MS TT**	**02/10/16**	**02/10/16 17:02**	**160210L01**
099-02-008-52	**LCSD**	**Aqueous**	**GC/MS TT**	**02/10/16**	**02/10/16 17:45**	**160210L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	84.97	85	85.26	85	45-110	34-121	0	0-11	
Acenaphthylene	100.0	81.14	81	81.90	82	50-105	41-114	1	0-20	
Aniline	100.0	72.36	72	72.57	73	50-130	37-143	0	0-20	
Anthracene	100.0	85.28	85	86.32	86	55-110	46-119	1	0-20	
Azobenzene	100.0	81.83	82	82.00	82	50-130	37-143	0	0-20	
Benzidine	100.0	122.5	122	121.1	121	50-130	37-143	1	0-20	
Benzo (a) Anthracene	100.0	86.98	87	86.17	86	55-110	46-119	1	0-20	
Benzo (a) Pyrene	100.0	86.10	86	86.16	86	55-110	46-119	0	0-20	
Benzo (b) Fluoranthene	100.0	84.00	84	87.12	87	45-120	32-132	4	0-20	
Benzo (g,h,i) Perylene	100.0	87.39	87	87.66	88	40-125	26-139	0	0-20	
Benzo (k) Fluoranthene	100.0	89.34	89	87.00	87	45-125	32-138	3	0-20	
Benzoic Acid	100.0	19.02	19	21.51	22	50-130	37-143	12	0-20	X
Benzyl Alcohol	100.0	76.35	76	76.27	76	30-110	17-123	0	0-20	
Bis(2-Chloroethoxy) Methane	100.0	83.33	83	82.48	82	45-105	35-115	1	0-20	
Bis(2-Chloroethyl) Ether	100.0	82.63	83	81.79	82	35-110	22-122	1	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	79.31	79	79.69	80	25-130	8-148	0	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	93.39	93	93.40	93	40-125	26-139	0	0-20	
4-Bromophenyl-Phenyl Ether	100.0	83.41	83	83.16	83	50-115	39-126	0	0-20	
Butyl Benzyl Phthalate	100.0	97.04	97	96.73	97	45-115	33-127	0	0-20	
4-Chloro-3-Methylphenol	100.0	90.63	91	87.87	88	45-110	34-121	3	0-40	
4-Chloroaniline	100.0	87.27	87	85.73	86	15-110	0-126	2	0-20	
2-Chloronaphthalene	100.0	77.83	78	78.49	78	50-105	41-114	1	0-20	
2-Chlorophenol	100.0	83.07	83	83.86	84	35-105	23-117	1	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	83.42	83	82.68	83	50-110	40-120	1	0-20	
Chrysene	100.0	84.50	85	85.12	85	55-110	46-119	1	0-20	
2,6-Dichlorophenol	100.0	86.15	86	85.45	85	42-120	29-133	1	0-21	
Di-n-Butyl Phthalate	100.0	89.97	90	89.09	89	55-115	45-125	1	0-20	
Di-n-Octyl Phthalate	100.0	89.28	89	89.48	89	35-135	18-152	0	0-20	
Dibenz (a,h) Anthracene	100.0	84.78	85	85.14	85	40-125	26-139	0	0-20	
Dibenzofuran	100.0	82.94	83	82.23	82	55-105	47-113	1	0-20	
1,2-Dichlorobenzene	100.0	51.57	52	51.36	51	35-100	24-111	0	0-20	
1,3-Dichlorobenzene	100.0	46.44	46	46.28	46	30-100	18-112	0	0-20	
1,4-Dichlorobenzene	100.0	48.67	49	48.91	49	30-100	18-112	0	0-26	
3,3'-Dichlorobenzidine	100.0	97.94	98	98.45	98	20-110	5-125	1	0-20	
2,4-Dichlorophenol	100.0	86.60	87	86.47	86	50-105	41-114	0	0-20	
Diethyl Phthalate	100.0	85.18	85	83.79	84	40-120	27-133	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: ISCO Sample 020616			Page 13 of 20

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	84.73	85	82.72	83	25-125	8-142	2	0-20	
2,4-Dimethylphenol	100.0	83.65	84	82.72	83	30-110	17-123	1	0-20	
4,6-Dinitro-2-Methylphenol	100.0	84.21	84	89.95	90	40-130	25-145	7	0-20	
2,4-Dinitrophenol	100.0	70.69	71	76.40	76	15-140	0-161	8	0-20	
2,4-Dinitrotoluene	100.0	96.54	97	95.55	96	50-120	38-132	1	0-36	
2,6-Dinitrotoluene	100.0	94.67	95	94.04	94	50-115	39-126	1	0-20	
Fluoranthene	100.0	85.91	86	84.70	85	55-115	45-125	1	0-20	
Fluorene	100.0	86.86	87	86.13	86	50-110	40-120	1	0-20	
Hexachloro-1,3-Butadiene	100.0	56.80	57	57.25	57	25-105	12-118	1	0-20	
Hexachlorobenzene	100.0	84.87	85	87.62	88	50-110	40-120	3	0-20	
Hexachlorocyclopentadiene	100.0	79.75	80	80.85	81	50-130	37-143	1	0-20	
Hexachloroethane	100.0	43.68	44	44.04	44	30-95	19-106	1	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.44	83	84.72	85	45-125	32-138	2	0-20	
Isophorone	100.0	84.36	84	83.78	84	50-110	40-120	1	0-20	
2-Methylnaphthalene	100.0	82.20	82	82.61	83	45-105	35-115	0	0-20	
1-Methylnaphthalene	100.0	73.52	74	73.16	73	45-105	35-115	0	0-20	
2-Methylphenol	100.0	78.99	79	76.69	77	40-110	28-122	3	0-20	
3/4-Methylphenol	200.0	151.6	76	149.9	75	30-110	17-123	1	0-20	
N-Nitroso-di-n-propylamine	100.0	93.19	93	93.85	94	35-130	19-146	1	0-13	
N-Nitrosodimethylamine	100.0	59.62	60	58.53	59	25-110	11-124	2	0-20	
N-Nitrosodiphenylamine	100.0	104.2	104	106.3	106	50-110	40-120	2	0-20	
Naphthalene	100.0	70.44	70	71.57	72	40-100	30-110	2	0-20	
4-Nitroaniline	100.0	96.20	96	91.80	92	35-120	21-134	5	0-20	
3-Nitroaniline	100.0	93.48	93	93.96	94	20-125	2-142	1	0-20	
2-Nitroaniline	100.0	100.4	100	102.0	102	50-115	39-126	2	0-20	
Nitrobenzene	100.0	84.67	85	84.96	85	45-110	34-121	0	0-20	
4-Nitrophenol	100.0	44.94	45	43.69	44	20-150	0-172	3	0-40	
2-Nitrophenol	100.0	91.83	92	93.27	93	40-115	28-128	2	0-20	
Pentachlorophenol	100.0	82.76	83	81.04	81	40-115	28-128	2	0-40	
Phenanthrene	100.0	89.20	89	89.29	89	50-115	39-126	0	0-20	
Phenol	100.0	41.07	41	41.46	41	10-115	0-132	1	0-23	
Pyrene	100.0	87.34	87	86.86	87	50-130	37-143	1	0-20	
Pyridine	100.0	64.02	64	63.23	63	52-115	42-126	1	0-20	
1,2,4-Trichlorobenzene	100.0	66.31	66	66.71	67	35-105	23-117	1	0-21	
2,4,6-Trichlorophenol	100.0	84.03	84	85.19	85	50-115	39-126	1	0-20	
2,4,5-Trichlorophenol	100.0	86.46	86	86.18	86	50-110	40-120	0	0-20	

Total number of LCS compounds: 72

Total number of ME compounds: 0

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 3510C
	Method: EPA 8270C
Project: ISCO Sample 020616	Page 14 of 20

Total number of ME compounds allowed: 4

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	02/09/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-0666
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: ISCO Sample 020616			Page 15 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2601	**LCS**	**Aqueous**	**GC/MS XX**	**02/11/16**	**02/11/16 11:18**	**160211L069**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	59.75	119	12-150	0-173	
Benzene	50.00	50.12	100	80-120	73-127	
Bromobenzene	50.00	51.79	104	80-120	73-127	
Bromochloromethane	50.00	48.75	97	80-122	73-129	
Bromodichloromethane	50.00	48.26	97	80-123	73-130	
Bromoform	50.00	47.65	95	74-134	64-144	
Bromomethane	50.00	27.43	55	22-160	0-183	
2-Butanone	50.00	53.67	107	44-164	24-184	
n-Butylbenzene	50.00	57.49	115	80-132	71-141	
sec-Butylbenzene	50.00	55.67	111	80-129	72-137	
tert-Butylbenzene	50.00	57.04	114	80-130	72-138	
Carbon Disulfide	50.00	45.58	91	60-126	49-137	
Carbon Tetrachloride	50.00	49.35	99	64-148	50-162	
Chlorobenzene	50.00	48.41	97	80-120	73-127	
Chloroethane	50.00	51.12	102	63-123	53-133	
Chloroform	50.00	47.64	95	79-121	72-128	
Chloromethane	50.00	41.39	83	43-133	28-148	
2-Chlorotoluene	50.00	52.51	105	80-130	72-138	
4-Chlorotoluene	50.00	52.70	105	80-121	73-128	
Dibromochloromethane	50.00	48.63	97	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	47.43	95	68-128	58-138	
1,2-Dibromoethane	50.00	49.97	100	80-120	73-127	
Dibromomethane	50.00	49.08	98	80-121	73-128	
1,2-Dichlorobenzene	50.00	50.81	102	80-120	73-127	
1,3-Dichlorobenzene	50.00	50.79	102	80-121	73-128	
1,4-Dichlorobenzene	50.00	47.70	95	80-120	73-127	
Dichlorodifluoromethane	50.00	46.06	92	25-187	0-214	
1,1-Dichloroethane	50.00	47.73	95	75-120	68-128	
1,2-Dichloroethane	50.00	45.78	92	80-123	73-130	
1,1-Dichloroethene	50.00	48.73	97	74-122	66-130	
c-1,2-Dichloroethene	50.00	53.24	106	75-123	67-131	
t-1,2-Dichloroethene	50.00	44.60	89	70-124	61-133	
1,2-Dichloropropane	50.00	50.29	101	80-120	73-127	
1,3-Dichloropropane	50.00	51.88	104	80-120	73-127	
2,2-Dichloropropane	50.00	57.10	114	49-151	32-168	
1,1-Dichloropropene	50.00	49.31	99	76-120	69-127	
c-1,3-Dichloropropene	50.00	60.33	121	80-124	73-131	
t-1,3-Dichloropropene	50.00	55.34	111	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: EPA 5030C
Method: EPA 8260B

Project: ISCO Sample 020616

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	53.64	107	80-120	73-127	
2-Hexanone	50.00	52.73	105	57-147	42-162	
Isopropylbenzene	50.00	56.67	113	80-127	72-135	
p-Isopropyltoluene	50.00	55.82	112	80-125	72-132	
Methylene Chloride	50.00	49.54	99	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.39	99	71-125	62-134	
Naphthalene	50.00	51.83	104	54-144	39-159	
n-Propylbenzene	50.00	53.24	106	80-127	72-135	
Styrene	50.00	55.59	111	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	49.52	99	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	48.65	97	78-126	70-134	
Tetrachloroethene	50.00	43.14	86	57-141	43-155	
Toluene	50.00	50.75	102	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	54.13	108	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	55.17	110	57-153	41-169	
1,1,1-Trichloroethane	50.00	49.99	100	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	44.33	89	58-148	43-163	
1,1,2-Trichloroethane	50.00	48.45	97	80-120	73-127	
Trichloroethene	50.00	49.80	100	80-120	73-127	
Trichlorofluoromethane	50.00	49.55	99	64-136	52-148	
1,2,3-Trichloropropane	50.00	49.43	99	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	54.76	110	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	56.23	112	80-126	72-134	
Vinyl Acetate	50.00	51.44	103	34-172	11-195	
Vinyl Chloride	50.00	44.69	89	67-127	57-137	
p/m-Xylene	100.0	113.9	114	80-127	72-135	
o-Xylene	50.00	58.56	117	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	48.64	97	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
Project: ISCO Sample 020616	Page 17 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2588	**LCS**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/10/16 12:57**	**160210L012**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	50.97	102	12-150	0-173	
Benzene	50.00	50.10	100	80-120	73-127	
Bromobenzene	50.00	51.50	103	80-120	73-127	
Bromochloromethane	50.00	52.29	105	80-122	73-129	
Bromodichloromethane	50.00	49.83	100	80-123	73-130	
Bromoform	50.00	49.18	98	74-134	64-144	
Bromomethane	50.00	42.31	85	22-160	0-183	
2-Butanone	50.00	50.79	102	44-164	24-184	
n-Butylbenzene	50.00	53.74	107	80-132	71-141	
sec-Butylbenzene	50.00	52.40	105	80-129	72-137	
tert-Butylbenzene	50.00	53.76	108	80-130	72-138	
Carbon Disulfide	50.00	46.64	93	60-126	49-137	
Carbon Tetrachloride	50.00	50.94	102	64-148	50-162	
Chlorobenzene	50.00	49.04	98	80-120	73-127	
Chloroethane	50.00	41.54	83	63-123	53-133	
Chloroform	50.00	49.92	100	79-121	72-128	
Chloromethane	50.00	42.95	86	43-133	28-148	
2-Chlorotoluene	50.00	52.14	104	80-130	72-138	
4-Chlorotoluene	50.00	51.05	102	80-121	73-128	
Dibromochloromethane	50.00	51.34	103	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	49.47	99	68-128	58-138	
1,2-Dibromoethane	50.00	51.90	104	80-120	73-127	
Dibromomethane	50.00	51.35	103	80-121	73-128	
1,2-Dichlorobenzene	50.00	50.54	101	80-120	73-127	
1,3-Dichlorobenzene	50.00	49.97	100	80-121	73-128	
1,4-Dichlorobenzene	50.00	50.78	102	80-120	73-127	
Dichlorodifluoromethane	50.00	42.54	85	25-187	0-214	
1,1-Dichloroethane	50.00	49.19	98	75-120	68-128	
1,2-Dichloroethane	50.00	50.46	101	80-123	73-130	
1,1-Dichloroethene	50.00	47.84	96	74-122	66-130	
c-1,2-Dichloroethene	50.00	50.52	101	75-123	67-131	
t-1,2-Dichloroethene	50.00	46.61	93	70-124	61-133	
1,2-Dichloropropane	50.00	50.91	102	80-120	73-127	
1,3-Dichloropropane	50.00	51.16	102	80-120	73-127	
2,2-Dichloropropane	50.00	58.98	118	49-151	32-168	
1,1-Dichloropropene	50.00	47.11	94	76-120	69-127	
c-1,3-Dichloropropene	50.00	57.41	115	80-124	73-131	
t-1,3-Dichloropropene	50.00	54.74	109	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

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

Project: ISCO Sample 020616

Date Received:	02/09/16
Work Order:	16-02-0666
Preparation:	EPA 5030C
Method:	EPA 8260B

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Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	52.76	106	80-120	73-127	
2-Hexanone	50.00	53.68	107	57-147	42-162	
Isopropylbenzene	50.00	53.67	107	80-127	72-135	
p-Isopropyltoluene	50.00	53.51	107	80-125	72-132	
Methylene Chloride	50.00	49.63	99	74-122	66-130	
4-Methyl-2-Pentanone	50.00	53.54	107	71-125	62-134	
Naphthalene	50.00	55.08	110	54-144	39-159	
n-Propylbenzene	50.00	51.46	103	80-127	72-135	
Styrene	50.00	51.99	104	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	51.83	104	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	57.41	115	78-126	70-134	
Tetrachloroethene	50.00	47.21	94	57-141	43-155	
Toluene	50.00	50.69	101	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	52.99	106	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	52.12	104	57-153	41-169	
1,1,1-Trichloroethane	50.00	52.45	105	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	40.54	81	58-148	43-163	
1,1,2-Trichloroethane	50.00	52.12	104	80-120	73-127	
Trichloroethene	50.00	46.48	93	80-120	73-127	
Trichlorofluoromethane	50.00	45.08	90	64-136	52-148	
1,2,3-Trichloropropane	50.00	48.25	96	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	52.32	105	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	53.57	107	80-126	72-134	
Vinyl Acetate	50.00	55.25	111	34-172	11-195	
Vinyl Chloride	50.00	44.75	89	67-127	57-137	
p/m-Xylene	100.0	104.1	104	80-127	72-135	
o-Xylene	50.00	52.81	106	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	50.40	101	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/09/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-0666
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
Project: ISCO Sample 020616	Page 19 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2594	**LCS**	**Aqueous**	**GC/MS V V**	**02/10/16**	**02/11/16 01:40**	**160210L051**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	66.17	132	12-150	0-173	
Benzene	50.00	49.18	98	80-120	73-127	
Bromobenzene	50.00	50.83	102	80-120	73-127	
Bromochloromethane	50.00	48.95	98	80-122	73-129	
Bromodichloromethane	50.00	48.97	98	80-123	73-130	
Bromoform	50.00	47.25	95	74-134	64-144	
Bromomethane	50.00	39.13	78	22-160	0-183	
2-Butanone	50.00	52.07	104	44-164	24-184	
n-Butylbenzene	50.00	50.41	101	80-132	71-141	
sec-Butylbenzene	50.00	50.25	100	80-129	72-137	
tert-Butylbenzene	50.00	50.41	101	80-130	72-138	
Carbon Disulfide	50.00	44.23	88	60-126	49-137	
Carbon Tetrachloride	50.00	51.56	103	64-148	50-162	
Chlorobenzene	50.00	47.86	96	80-120	73-127	
Chloroethane	50.00	37.25	74	63-123	53-133	
Chloroform	50.00	48.39	97	79-121	72-128	
Chloromethane	50.00	42.96	86	43-133	28-148	
2-Chlorotoluene	50.00	50.60	101	80-130	72-138	
4-Chlorotoluene	50.00	49.14	98	80-121	73-128	
Dibromochloromethane	50.00	51.65	103	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	47.94	96	68-128	58-138	
1,2-Dibromoethane	50.00	50.44	101	80-120	73-127	
Dibromomethane	50.00	48.34	97	80-121	73-128	
1,2-Dichlorobenzene	50.00	48.99	98	80-120	73-127	
1,3-Dichlorobenzene	50.00	48.54	97	80-121	73-128	
1,4-Dichlorobenzene	50.00	48.30	97	80-120	73-127	
Dichlorodifluoromethane	50.00	40.38	81	25-187	0-214	
1,1-Dichloroethane	50.00	48.11	96	75-120	68-128	
1,2-Dichloroethane	50.00	48.58	97	80-123	73-130	
1,1-Dichloroethene	50.00	48.01	96	74-122	66-130	
c-1,2-Dichloroethene	50.00	49.17	98	75-123	67-131	
t-1,2-Dichloroethene	50.00	44.97	90	70-124	61-133	
1,2-Dichloropropane	50.00	48.48	97	80-120	73-127	
1,3-Dichloropropane	50.00	49.70	99	80-120	73-127	
2,2-Dichloropropane	50.00	42.66	85	49-151	32-168	
1,1-Dichloropropene	50.00	45.91	92	76-120	69-127	
c-1,3-Dichloropropene	50.00	53.23	106	80-124	73-131	
t-1,3-Dichloropropene	50.00	49.33	99	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

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

Date Received: 02/09/16
Work Order: 16-02-0666
Preparation: EPA 5030C
Method: EPA 8260B

Project: ISCO Sample 020616

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	50.99	102	80-120	73-127	
2-Hexanone	50.00	53.32	107	57-147	42-162	
Isopropylbenzene	50.00	52.04	104	80-127	72-135	
p-Isopropyltoluene	50.00	51.46	103	80-125	72-132	
Methylene Chloride	50.00	47.68	95	74-122	66-130	
4-Methyl-2-Pentanone	50.00	49.52	99	71-125	62-134	
Naphthalene	50.00	51.28	103	54-144	39-159	
n-Propylbenzene	50.00	49.53	99	80-127	72-135	
Styrene	50.00	50.53	101	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	50.42	101	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	50.45	101	78-126	70-134	
Tetrachloroethene	50.00	53.92	108	57-141	43-155	
Toluene	50.00	48.84	98	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	50.86	102	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	49.95	100	57-153	41-169	
1,1,1-Trichloroethane	50.00	52.71	105	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	38.60	77	58-148	43-163	
1,1,2-Trichloroethane	50.00	50.09	100	80-120	73-127	
Trichloroethene	50.00	47.65	95	80-120	73-127	
Trichlorofluoromethane	50.00	45.85	92	64-136	52-148	
1,2,3-Trichloropropane	50.00	45.95	92	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	50.47	101	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	51.95	104	80-126	72-134	
Vinyl Acetate	50.00	46.17	92	34-172	11-195	
Vinyl Chloride	50.00	43.73	87	67-127	57-137	
p/m-Xylene	100.0	101.2	101	80-127	72-135	
o-Xylene	50.00	51.14	102	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	47.90	96	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-02-0666 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Total	915	Mercury 04	1
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8260B	EPA 5030C	1042	GC/MS V V	2
EPA 8270C	EPA 3510C	923	GC/MS TT	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2540 C	N/A	1009	N/A	1
SM 4500 H+ B	N/A	650	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 7	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

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.

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

WO NO. / LAB USE ONLY: **16-02-0666**

CHAIN-OF-CUSTODY RECORD

DATE: 620616
PAGE: 1 OF ____

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

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:
Bill Crystal Geyser Roxane Directly

CLIENT PROJECT NAME / NO.: ISCO Sample 020616
P.O. NO.: SB0670D.06
PROJECT CONTACT: Ryan Smith
LAB CONTACT OR QUOTE NO.: Stephen Nowak
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT)

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 Surfactants	~~TPH(d)~~ ☐ DRO Metals	TPH ~~C6-C36~~ ☐ ~~C6-C44~~ Anions	~~TPH~~ Alkalinity	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	~~Oxygenates (8260)~~ TDS	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	~~Pesticides (8081)~~ Total Phosphorus	~~PCBs (8082)~~ Ammonia, N	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☒ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	TKN, N	NO3+NO2			
1	EP-020616	02/6/16	340	Water	16	✓	✓		✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓		✓	✓			
2	EP-020616	02/6/16	400	Water	16	✓	✓		✓	✓	✓	✓		✓	✓		✓	✓	✓		✓		✓	✓			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Manuel L 2/6/16 1200			
		2/9/16	1020

2015-05-13 Revision

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ORIGIN ID:IYKA (760) 764-2885
GEORGE CASTANEDA
CG ROXANE LLC
1210 SOUTH HWY 395

OLANCHA, CA 93549
UNITED STATES US

SHIP DATE: 08FEB16
ACTWGT: 62.00 LB
CAD: 7147219/INET3730

BILL SENDER

TO

EUROFINS CALSCIENCE, INC
7440 LINCOLN WAY

GARDEN GROVE CA 92841
(206) 496-3947 REF:
INV:
PO: DEPT:

540J1/97D7/F27F

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E

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TUE - 09 FEB 3:00P
STANDARD OVERNIGHT

TRK# 0201 7756 0016 1991

92841
CA-US SNA

92 APVA

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WORK ORDER NUMBER: 16-02- 0666

SAMPLE RECEIPT CHECKLIST

COOLER 1 **OF** 1

CLIENT: Geosyntec

DATE: 02 / 09 **/ 2016**

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

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 3.9 °C (w/ CF): 4.2 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: ________)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter Checked by: 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: 802

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	☑ PS PS 2/9/16	☑	☐
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:** 160203A **)**

Aqueous: ☐ VOA ☑ VOAh ☐ VOAna$_2$ ☐ 100PJ ☐ 100PJna$_2$ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB ☐ 125PBznna ☐ 250AGB ☐ 250CGB ☑ 250CGBs ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☑ 500PB ☑ 1AGB ☐ 1AGBna$_2$ ☑ 1AGBs ☐ 1PB ☐ 1PBna ☑ 250PBznna ☐ ________ ☐ ________ ☐ ________

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: 802

Reviewed by: 659/8246

2015-04-10 Revision

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WORK ORDER NUMBER: 16-02-0666

SAMPLE ANOMALY REPORT

DATE: 02 / 09 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☑ Sample(s) received but NOT LISTED on COC
- ☑ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☑ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☑ Number of container(s)
  - * ☑ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(-3) Received 1-vial/hcl, labeled as trip blank not on COC, no collection date on label.

Collection time per label:
* (-1) Nitrogen, Ammonia container, 400
* Surfactants " , 1055

(-1) 1 of 5 vials/hcl received broken

* (-2) Container for SVOCs not received, analysis requested on COC.

(-1) Received 18 containers instead of 16
2-1 liter amber glass container/H_2SO_4
5-vials/hcl
2-250 ml glass container/H_2SO_4
1-250ml plastic container/HNO_3
1-250 ml " " /HNO_3, ultra
1-1 liter plastic container, unpreserved
1-500 ml " " "
1-250 ml " " "
1-125 ml " " "
2-1 liter amber glass container, unpreserved.

MISCELLANEOUS: (Describe)

Comments
(-1-2) Surfactants, past holding time.

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: [signature]

Reviewed by: [signature]

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

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Stephen Nowak

From: Ryan Smith [RSmith@Geosyntec.com]
Sent: Wednesday, February 10, 2016 9:38 AM
To: Stephen Nowak
Cc: Jason Flowers
Subject: RE: Log In and COC for ISCO Sample 020616 ECI 16-02-0666

Yes please label it QCTB-01-020616 and analyze for VOCs 8260B.

Thanks.

Ryan Smith, P.G., C.Hg
Senior Geologist

From: Stephen Nowak [mailto:StephenNowak@eurofinsUS.com]
Sent: Wednesday, February 10, 2016 9:35 AM
To: Ryan Smith
Subject: Log In and COC for ISCO Sample 020616 ECI 16-02-0666

Trip Blank also rec'd but not on the COC.
Do you want it tested?

Stephen Nowak
Project Manager

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Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

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WORK ORDER NUMBER: 16-02-1661

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0746

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

Approved for release on 03/04/2016 by:
Stephen Nowak
Project Manager

ResultLink ▸

Email your PM ▸

ACCREDITED IN ACCORDANCE WITH nelac

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Contents

Client Project Name: CG Roxane / SB0746
Work Order Number: 16-02-1661

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Work Order Narrative

Work Order: 16-02-1661 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 02/19/16. They were assigned to Work Order 16-02-1661.

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.

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Sample Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order:	16-02-1661
		Project Name:	CG Roxane / SB0746
		PO Number:	
		Date/Time Received:	02/19/16 17:40
		Number of Containers:	36
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
EP-021816	16-02-1661-1	02/18/16 14:00	17	Aqueous
FP-021816	16-02-1661-2	02/18/16 14:30	17	Aqueous
QCTB-01-021816	16-02-1661-3	02/18/16 00:00	2	Aqueous

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Detections Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order: Project Name: Received:	16-02-1661 CG Roxane / SB0746 02/19/16
Attn:	Ryan Smith		Page 1 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
EP-021816 (16-02-1661-1)						
Calcium	17.0		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.50		0.100	mg/L	EPA 200.7	N/A
Sodium	42.5		0.500	mg/L	EPA 200.7	N/A
Chloride	8.1		1.0	mg/L	EPA 300.0	N/A
Sulfate	35		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00131		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.0162		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.00880		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.00800		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00626		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Vanadium	0.00401		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.00933		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00139		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.0167		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.00918		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.00790		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00633		0.00100	mg/L	EPA 6020	EPA 3020A Total
Vanadium	0.00435		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.00769		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	89.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	89.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	205		1.00	mg/L	SM 2540 C	N/A
pH	7.19	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Phosphorus, Total	0.34		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	1.0		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.27		0.10	mg/L	SM 4500-NO3 E	N/A
MBAS	0.20		0.10	mg/L	SM 5540C	N/A

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* MDL is shown

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Detections Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order: Project Name: Received:	16-02-1661 CG Roxane / SB0746 02/19/16
Attn:	Ryan Smith		Page 2 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
FP-021816 (16-02-1661-2)						
Calcium	22.1		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.66		0.100	mg/L	EPA 200.7	N/A
Sodium	24.2		0.500	mg/L	EPA 200.7	N/A
Chloride	4.3		1.0	mg/L	EPA 300.0	N/A
Sulfate	35		1.0	mg/L	EPA 300.0	N/A
Antimony	0.00506		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Arsenic	0.00419		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0241		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Chromium	0.00134		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Copper	0.0114		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Molybdenum	0.00114		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Nickel	0.00186		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0502		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Antimony	0.00544		0.00100	mg/L	EPA 6020	EPA 3020A Total
Arsenic	0.00449		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	0.0250		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chromium	0.00135		0.00100	mg/L	EPA 6020	EPA 3020A Total
Copper	0.0117		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	0.00130		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	0.00190		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0572		0.00500	mg/L	EPA 6020	EPA 3020A Total
Phenol	160		9.7	ug/L	EPA 8270C	EPA 3510C
Alkalinity, Total (as CaCO3)	37.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	37.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	180		1.00	mg/L	SM 2540 C	N/A
pH	6.50	BV,BU	0.01	pH units	SM 4500 H+ B	N/A
Phosphorus, Total	12		2.5	mg/L	SM 4500 P B/E	N/A
Total Phosphate	36		7.8	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	3.6		0.50	mg/L	SM 4500-NO3 E	N/A
MBAS	3.0		0.50	mg/L	SM 5540C	N/A
Total Nitrogen	3.6		0.50	mg/L	Total Nitrogen by Calc	N/A

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

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* MDL is shown

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
		Units:	mg/L
Project: CG Roxane / SB0746			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-F**	**02/18/16 14:00**	**Aqueous**	**IC 15**	**N/A**	**02/20/16 07:44**	**160219L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	8.1	1.0	1.00	
Sulfate	35	1.0	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-021816	**16-02-1661-2-F**	**02/18/16 14:30**	**Aqueous**	**IC 15**	**N/A**	**02/20/16 08:03**	**160219L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	4.3	1.0	1.00	
Sulfate	35	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	**099-12-906-6474**	**N/A**	**Aqueous**	**IC 15**	**N/A**	**02/19/16 22:29**	**160219L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 200.7
	Units: mg/L
Project: CG Roxane / SB0746	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-K**	**02/18/16 14:00**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/23/16 09:59**	**160222LA4**

Parameter	Result	RL	DF	Qualifiers
Calcium	17.0	0.100	1.00	
Magnesium	1.50	0.100	1.00	
Sodium	42.5	0.500	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-021816	**16-02-1661-2-K**	**02/18/16 14:30**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/23/16 10:00**	**160222LA4**

Parameter	Result	RL	DF	Qualifiers
Calcium	22.1	0.100	1.00	
Magnesium	1.66	0.100	1.00	
Sodium	24.2	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	**097-01-012-6475**	**N/A**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/23/16 09:28**	**160222LA4**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
	Units: mg/L
Project: CG Roxane / SB0746	Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-K**	**02/18/16 14:00**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 03:24**	**160222LA3**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00139	0.00100	1.00	
Arsenic	0.0167	0.00100	1.00	
Barium	0.00918	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00790	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00633	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00435	0.00100	1.00	
Zinc	0.00769	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0746			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-021816	**16-02-1661-2-K**	**02/18/16 14:30**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 03:29**	**160222LA3**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00544	0.00100	1.00	
Arsenic	0.00449	0.00100	1.00	
Barium	0.0250	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00135	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.0117	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00130	0.00100	1.00	
Nickel	0.00190	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0572	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
	Units: mg/L
Project: CG Roxane / SB0746	Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**096-06-003-5112**	**N/A**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 20:28**	**160222LA3**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3005A Filt.
	Method: EPA 6020
	Units: mg/L
Project: CG Roxane / SB0746	Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-L**	**02/18/16 14:00**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 03:26**	**160222LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00131	0.00100	1.00	
Arsenic	0.0162	0.00100	1.00	
Barium	0.00880	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.00800	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00626	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	0.00401	0.00100	1.00	
Zinc	0.00933	0.00500	1.00	

Return to Contents

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

eurofins Calscience

Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0746			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-021816	**16-02-1661-2-L**	**02/18/16 14:30**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 03:32**	**160222LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	0.00506	0.00100	1.00	
Arsenic	0.00419	0.00100	1.00	
Barium	0.0241	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	0.00134	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	0.0114	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	0.00114	0.00100	1.00	
Nickel	0.00186	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0502	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0746			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-693-1045**	**N/A**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 20:28**	**160222LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Total
	Method: EPA 7470A
	Units: mg/L
Project: CG Roxane / SB0746	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-K**	**02/18/16 14:00**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:51**	**160224LA1**

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
FP-021816	**16-02-1661-2-K**	**02/18/16 14:30**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:58**	**160224LA1**

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	**099-04-008-7766**	**N/A**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:04**	**160224LA1**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Filt.
	Method: EPA 7470A
	Units: mg/L
Project: CG Roxane / SB0746	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-L**	**02/18/16 14:00**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 20:00**	**160224LA1F**

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
FP-021816	**16-02-1661-2-L**	**02/18/16 14:30**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 20:02**	**160224LA1F**

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	**099-15-763-721**	**N/A**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:04**	**160224LA1F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-N**	**02/18/16 14:00**	**Aqueous**	**GC/MS SS**	**02/20/16**	**02/24/16 12:13**	**160220L06**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.8	1.00	
Acenaphthylene	ND	9.8	1.00	
Aniline	ND	9.8	1.00	
Anthracene	ND	9.8	1.00	
Azobenzene	ND	9.8	1.00	
Benzidine	ND	49	1.00	
Benzo (a) Anthracene	ND	9.8	1.00	
Benzo (a) Pyrene	ND	9.8	1.00	
Benzo (b) Fluoranthene	ND	9.8	1.00	
Benzo (g,h,i) Perylene	ND	9.8	1.00	
Benzo (k) Fluoranthene	ND	9.8	1.00	
Benzoic Acid	ND	49	1.00	
Benzyl Alcohol	ND	9.8	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.8	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.8	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.8	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.8	1.00	
Butyl Benzyl Phthalate	ND	9.8	1.00	
4-Chloro-3-Methylphenol	ND	9.8	1.00	
4-Chloroaniline	ND	9.8	1.00	
2-Chloronaphthalene	ND	9.8	1.00	
2-Chlorophenol	ND	9.8	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.8	1.00	
Chrysene	ND	9.8	1.00	
2,6-Dichlorophenol	ND	9.8	1.00	
Di-n-Butyl Phthalate	ND	9.8	1.00	
Di-n-Octyl Phthalate	ND	9.8	1.00	
Dibenz (a,h) Anthracene	ND	9.8	1.00	
Dibenzofuran	ND	9.8	1.00	
1,2-Dichlorobenzene	ND	9.8	1.00	
1,3-Dichlorobenzene	ND	9.8	1.00	
1,4-Dichlorobenzene	ND	9.8	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.8	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 2 of 9

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.8	1.00	
Dimethyl Phthalate	ND	9.8	1.00	
2,4-Dimethylphenol	ND	9.8	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.8	1.00	
2,6-Dinitrotoluene	ND	9.8	1.00	
Fluoranthene	ND	9.8	1.00	
Fluorene	ND	9.8	1.00	
Hexachloro-1,3-Butadiene	ND	9.8	1.00	
Hexachlorobenzene	ND	9.8	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.8	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.8	1.00	
Isophorone	ND	9.8	1.00	
2-Methylnaphthalene	ND	9.8	1.00	
1-Methylnaphthalene	ND	9.8	1.00	
2-Methylphenol	ND	9.8	1.00	
3/4-Methylphenol	ND	9.8	1.00	
N-Nitroso-di-n-propylamine	ND	9.8	1.00	
N-Nitrosodimethylamine	ND	9.8	1.00	
N-Nitrosodiphenylamine	ND	9.8	1.00	
Naphthalene	ND	9.8	1.00	
4-Nitroaniline	ND	9.8	1.00	
3-Nitroaniline	ND	9.8	1.00	
2-Nitroaniline	ND	9.8	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.8	1.00	
2-Nitrophenol	ND	9.8	1.00	
Pentachlorophenol	ND	9.8	1.00	
Phenanthrene	ND	9.8	1.00	
Phenol	ND	9.8	1.00	
Pyrene	ND	9.8	1.00	
Pyridine	ND	9.8	1.00	
1,2,4-Trichlorobenzene	ND	9.8	1.00	
2,4,6-Trichlorophenol	ND	9.8	1.00	
2,4,5-Trichlorophenol	ND	9.8	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	55	50-110	
2-Fluorophenol	45	20-110	
Nitrobenzene-d5	78	40-110	
p-Terphenyl-d14	75	50-135	
Phenol-d6	27	10-115	
2,4,6-Tribromophenol	76	40-125	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3510C
	Method: EPA 8270C
	Units: ug/L
Project: CG Roxane / SB0746	Page 4 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-021816	**16-02-1661-2-N**	**02/18/16 14:30**	**Aqueous**	**GC/MS SS**	**02/20/16**	**02/24/16 12:32**	**160220L06**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.7	1.00	
Acenaphthylene	ND	9.7	1.00	
Aniline	ND	9.7	1.00	
Anthracene	ND	9.7	1.00	
Azobenzene	ND	9.7	1.00	
Benzidine	ND	48	1.00	
Benzo (a) Anthracene	ND	9.7	1.00	
Benzo (a) Pyrene	ND	9.7	1.00	
Benzo (b) Fluoranthene	ND	9.7	1.00	
Benzo (g,h,i) Perylene	ND	9.7	1.00	
Benzo (k) Fluoranthene	ND	9.7	1.00	
Benzoic Acid	ND	48	1.00	
Benzyl Alcohol	ND	9.7	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.7	1.00	
Bis(2-Chloroethyl) Ether	ND	24	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.7	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.7	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.7	1.00	
Butyl Benzyl Phthalate	ND	9.7	1.00	
4-Chloro-3-Methylphenol	ND	9.7	1.00	
4-Chloroaniline	ND	9.7	1.00	
2-Chloronaphthalene	ND	9.7	1.00	
2-Chlorophenol	ND	9.7	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.7	1.00	
Chrysene	ND	9.7	1.00	
2,6-Dichlorophenol	ND	9.7	1.00	
Di-n-Butyl Phthalate	ND	9.7	1.00	
Di-n-Octyl Phthalate	ND	9.7	1.00	
Dibenz (a,h) Anthracene	ND	9.7	1.00	
Dibenzofuran	ND	9.7	1.00	
1,2-Dichlorobenzene	ND	9.7	1.00	
1,3-Dichlorobenzene	ND	9.7	1.00	
1,4-Dichlorobenzene	ND	9.7	1.00	
3,3'-Dichlorobenzidine	ND	24	1.00	
2,4-Dichlorophenol	ND	9.7	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 5 of 9

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.7	1.00	
Dimethyl Phthalate	ND	9.7	1.00	
2,4-Dimethylphenol	ND	9.7	1.00	
4,6-Dinitro-2-Methylphenol	ND	48	1.00	
2,4-Dinitrophenol	ND	48	1.00	
2,4-Dinitrotoluene	ND	9.7	1.00	
2,6-Dinitrotoluene	ND	9.7	1.00	
Fluoranthene	ND	9.7	1.00	
Fluorene	ND	9.7	1.00	
Hexachloro-1,3-Butadiene	ND	9.7	1.00	
Hexachlorobenzene	ND	9.7	1.00	
Hexachlorocyclopentadiene	ND	24	1.00	
Hexachloroethane	ND	9.7	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.7	1.00	
Isophorone	ND	9.7	1.00	
2-Methylnaphthalene	ND	9.7	1.00	
1-Methylnaphthalene	ND	9.7	1.00	
2-Methylphenol	ND	9.7	1.00	
3/4-Methylphenol	ND	9.7	1.00	
N-Nitroso-di-n-propylamine	ND	9.7	1.00	
N-Nitrosodimethylamine	ND	9.7	1.00	
N-Nitrosodiphenylamine	ND	9.7	1.00	
Naphthalene	ND	9.7	1.00	
4-Nitroaniline	ND	9.7	1.00	
3-Nitroaniline	ND	9.7	1.00	
2-Nitroaniline	ND	9.7	1.00	
Nitrobenzene	ND	24	1.00	
4-Nitrophenol	ND	9.7	1.00	
2-Nitrophenol	ND	9.7	1.00	
Pentachlorophenol	ND	9.7	1.00	
Phenanthrene	ND	9.7	1.00	
Phenol	160	9.7	1.00	
Pyrene	ND	9.7	1.00	
Pyridine	ND	9.7	1.00	
1,2,4-Trichlorobenzene	ND	9.7	1.00	
2,4,6-Trichlorophenol	ND	9.7	1.00	
2,4,5-Trichlorophenol	ND	9.7	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	60	50-110	
2-Fluorophenol	49	20-110	
Nitrobenzene-d5	85	40-110	
p-Terphenyl-d14	75	50-135	
Phenol-d6	29	10-115	
2,4,6-Tribromophenol	83	40-125	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3510C
	Method: EPA 8270C
	Units: ug/L
Project: CG Roxane / SB0746	Page 7 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-55**	**N/A**	**Aqueous**	**GC/MS SS**	**02/20/16**	**02/24/16 10:23**	**160220L06**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 8 of 9

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

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

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Analytical Report

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

Date Received:	02/19/16
Work Order:	16-02-1661
Preparation:	EPA 3510C
Method:	EPA 8270C
Units:	ug/L

Project: CG Roxane / SB0746

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	51	50-110	
2-Fluorophenol	51	20-110	
Nitrobenzene-d5	85	40-110	
p-Terphenyl-d14	77	50-135	
Phenol-d6	31	10-115	
2,4,6-Tribromophenol	78	40-125	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 1 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EP-021816	**16-02-1661-1-A**	**02/18/16 14:00**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 21:37**	**160223L014**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 2 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	93	78-126	
1,2-Dichloroethane-d4	91	75-135	
Toluene-d8	98	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 3 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-021816	**16-02-1661-2-A**	**02/18/16 14:30**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 22:12**	**160223L014**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 4 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	94	78-126	
1,2-Dichloroethane-d4	92	75-135	
Toluene-d8	98	80-120	

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

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Analytical Report

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
	Units: ug/L
Project: CG Roxane / SB0746	Page 5 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-01-021816	**16-02-1661-3-A**	**02/18/16 00:00**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 16:49**	**160223L014**

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.

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 6 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	92	78-126	
1,2-Dichloroethane-d4	92	75-135	
Toluene-d8	99	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 7 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-2621**	**N/A**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 14:27**	**160223L014**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 8 of 8

Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	94	78-126	
1,2-Dichloroethane-d4	92	75-135	
Toluene-d8	98	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177			
Project: CG Roxane / SB0746			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
EP-021816	**16-02-1661-1**	**02/18/16 14:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	89.0	1.00	1.00		mg/L	N/A	02/23/16	SM 2320B
Bicarbonate (as CaCO3)	89.0	1.00	1.00		mg/L	N/A	02/23/16	SM 2320B
Solids, Total Dissolved	205	1.00	1.00		mg/L	02/22/16	02/22/16	SM 2540 C
pH	7.19	0.01	1.00	BV,BU	pH units	N/A	02/19/16	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	02/26/16	02/26/16	SM 4500 N Org B
Phosphorus, Total	0.34	0.10	1.00		mg/L	02/26/16	02/26/16	SM 4500 P B/E
Total Phosphate	1.0	0.31	1.00		mg/L	02/26/16	02/26/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	02/27/16	02/27/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.27	0.10	1.00		mg/L	02/25/16	02/25/16	SM 4500-NO3 E
MBAS	0.20	0.10	1.00		mg/L	02/19/16	02/19/16	SM 5540C
Total Nitrogen	ND	0.50	1.00		mg/L	N/A	02/29/16	Total Nitrogen by Calc

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
FP-021816	**16-02-1661-2**	**02/18/16 14:30**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	37.0	1.00	1.00		mg/L	N/A	02/23/16	SM 2320B
Bicarbonate (as CaCO3)	37.0	1.00	1.00		mg/L	N/A	02/23/16	SM 2320B
Solids, Total Dissolved	180	1.00	1.00		mg/L	02/22/16	02/22/16	SM 2540 C
pH	6.50	0.01	1.00	BV,BU	pH units	N/A	02/19/16	SM 4500 H+ B
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	02/26/16	02/26/16	SM 4500 N Org B
Phosphorus, Total	12	2.5	25.0		mg/L	02/26/16	02/26/16	SM 4500 P B/E
Total Phosphate	36	7.8	25.0		mg/L	02/26/16	02/26/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	02/27/16	02/27/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	3.6	0.50	5.00		mg/L	02/25/16	02/25/16	SM 4500-NO3 E
MBAS	3.0	0.50	5.00		mg/L	02/19/16	02/19/16	SM 5540C
Total Nitrogen	3.6	0.50	1.00		mg/L	N/A	02/29/16	Total Nitrogen by Calc

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	02/23/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	02/23/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	02/22/16	02/22/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	02/26/16	02/26/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	02/26/16	02/26/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	02/26/16	02/26/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	02/27/16	02/27/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	02/25/16	02/25/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	02/19/16	02/19/16	SM 5540C

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

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 300.0
Project: CG Roxane / SB0746	Page 1 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-1659-2	**Sample**	**Aqueous**	**IC 15**	**N/A**	**02/20/16 05:18**	**160219S01B**
16-02-1659-2	**Matrix Spike**	**Aqueous**	**IC 15**	**N/A**	**02/20/16 16:12**	**160219S01B**
16-02-1659-2	**Matrix Spike Duplicate**	**Aqueous**	**IC 15**	**N/A**	**02/20/16 16:30**	**160219S01B**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	34.42	50.00	88.37	108	88.34	108	80-120	0	0-20	
Sulfate	67.43	50.00	125.1	115	125.0	115	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: CG Roxane / SB0746	Page 2 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EP-021816	**Sample**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226TPS1**
EP-021816	**Matrix Spike**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226TPS1**
EP-021816	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.3430	0.4000	0.7667	106	0.7598	104	70-130	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: N/A
Method: SM 4500 P B/E

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EP-021816	**Sample**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226PO4S1**
EP-021816	**Matrix Spike**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226PO4S1**
EP-021816	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.049	1.220	2.346	106	2.325	105	70-130	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NO3 E
Project: CG Roxane / SB0746	Page 4 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-1548-4	**Sample**	**Aqueous**	**UV 7**	**02/25/16**	**02/25/16 20:10**	**G0225NO3S2**
16-02-1548-4	**Matrix Spike**	**Aqueous**	**UV 7**	**02/25/16**	**02/25/16 20:10**	**G0225NO3S2**
16-02-1548-4	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**02/25/16**	**02/25/16 20:10**	**G0225NO3S2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.2606	0.5000	0.7043	89	0.6564	79	70-130	7	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 5540C
Project: CG Roxane / SB0746	Page 5 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EP-021816	**Sample**	**Aqueous**	**UV 8**	**02/19/16**	**02/19/16 21:58**	**G0219SURS4**
EP-021816	**Matrix Spike**	**Aqueous**	**UV 8**	**02/19/16**	**02/19/16 21:58**	**G0219SURS4**
EP-021816	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**02/19/16**	**02/19/16 21:58**	**G0219SURS4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	0.2000	1.000	1.160	96	1.140	94	70-130	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
Project: CG Roxane / SB0746			Page 6 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-1655-1	**Sample**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/23/16 10:54**	**160222SA4A**
16-02-1655-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/23/16 10:55**	**160222SA4A**
16-02-1655-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/23/16 10:56**	**160222SA4A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	329.2	1.000	317.4	4X	349.8	4X	80-120	4X	0-20	Q
Magnesium	74.84	1.000	74.04	4X	84.17	4X	80-120	4X	0-20	Q
Sodium	140.9	10.00	145.1	4X	158.8	4X	80-120	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3005A Filt.
	Method: EPA 6020
Project: CG Roxane / SB0746	Page 7 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EP-021816	**Sample**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 03:26**	**160222SA3**
EP-021816	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 20:34**	**160222SA3**
EP-021816	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 03:12**	**160222SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	0.001311	0.1000	0.1023	101	0.1079	107	85-133	5	0-11	
Arsenic	0.01617	0.1000	0.1136	97	0.1252	109	73-127	10	0-11	
Barium	0.008799	0.1000	0.1078	99	0.1133	104	74-128	5	0-10	
Beryllium	ND	0.1000	0.09864	99	0.1050	105	56-122	6	0-11	
Cadmium	ND	0.1000	0.09949	99	0.1053	105	84-114	6	0-8	
Chromium	ND	0.1000	0.1113	111	0.1069	107	73-133	4	0-11	
Cobalt	ND	0.1000	0.1055	105	0.1105	110	79-121	5	0-10	
Copper	0.007999	0.1000	0.1126	105	0.1180	110	72-108	5	0-10	3
Lead	ND	0.1000	0.1111	111	0.1131	113	79-121	2	0-10	
Molybdenum	0.006261	0.1000	0.1202	114	0.1220	116	83-137	1	0-10	
Nickel	ND	0.1000	0.1048	105	0.1122	112	68-122	7	0-10	
Selenium	ND	0.1000	0.08983	90	0.09024	90	59-125	0	0-12	
Silver	ND	0.05000	0.04762	95	0.05056	101	68-128	6	0-14	
Thallium	ND	0.1000	0.1084	108	0.1095	109	73-121	1	0-11	
Vanadium	0.004014	0.1000	0.1127	109	0.1173	113	77-137	4	0-15	
Zinc	0.009331	0.1000	0.09685	88	0.1125	103	43-145	15	0-39	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Total
	Method: EPA 7470A
Project: CG Roxane / SB0746	Page 8 of 10

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-1515-2	**Sample**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:08**	**160224SA1**
16-02-1515-2	**Matrix Spike**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:11**	**160224SA1**
16-02-1515-2	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:13**	**160224SA1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01032	103	0.01061	106	55-133	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: EPA 5030C
Method: EPA 8260B

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-02-1764-2	**Sample**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 17:25**	**160223S040**
16-02-1764-2	**Matrix Spike**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 12:06**	**160223S040**
16-02-1764-2	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 12:41**	**160223S040**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	49.75	99	45.14	90	22-178	10	0-26	
Benzene	ND	50.00	65.01	130	57.16	114	70-130	13	0-20	
Bromobenzene	ND	50.00	65.72	131	58.54	117	70-130	12	0-20	3
Bromochloromethane	ND	50.00	63.81	128	56.22	112	70-132	13	0-20	
Bromodichloromethane	ND	50.00	64.00	128	55.48	111	69-135	14	0-20	
Bromoform	ND	50.00	62.45	125	55.46	111	70-133	12	0-20	
Bromomethane	ND	50.00	44.08	88	27.90	56	11-167	45	0-32	4
2-Butanone	ND	50.00	51.47	103	47.16	94	39-159	9	0-21	
n-Butylbenzene	ND	50.00	65.48	131	59.84	120	62-152	9	0-28	
sec-Butylbenzene	ND	50.00	65.92	132	58.36	117	70-143	12	0-24	
tert-Butylbenzene	ND	50.00	71.24	142	62.78	126	70-140	13	0-20	3
Carbon Disulfide	ND	50.00	72.73	145	62.21	124	54-138	16	0-23	3
Carbon Tetrachloride	ND	50.00	78.72	157	66.63	133	63-153	17	0-22	3
Chlorobenzene	ND	50.00	62.73	125	55.86	112	70-130	12	0-20	
Chloroethane	ND	50.00	57.86	116	69.70	139	44-140	19	0-32	
Chloroform	ND	50.00	62.22	124	54.34	109	68-134	14	0-20	
Chloromethane	ND	50.00	42.51	85	35.13	70	20-158	19	0-40	
2-Chlorotoluene	ND	50.00	65.08	130	57.90	116	70-137	12	0-20	
4-Chlorotoluene	ND	50.00	62.65	125	55.27	111	70-130	13	0-20	
Dibromochloromethane	ND	50.00	63.35	127	56.11	112	70-133	12	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	57.45	115	54.80	110	67-133	5	0-20	
1,2-Dibromoethane	ND	50.00	60.77	122	54.84	110	70-130	10	0-20	
Dibromomethane	ND	50.00	63.58	127	55.68	111	70-130	13	0-20	
1,2-Dichlorobenzene	ND	50.00	62.04	124	55.67	111	70-130	11	0-20	
1,3-Dichlorobenzene	ND	50.00	63.26	127	56.06	112	70-130	12	0-20	
1,4-Dichlorobenzene	ND	50.00	62.38	125	55.30	111	70-130	12	0-20	
Dichlorodifluoromethane	ND	50.00	65.82	132	59.94	120	10-190	9	0-40	
1,1-Dichloroethane	ND	50.00	62.99	126	54.41	109	64-130	15	0-20	
1,2-Dichloroethane	ND	50.00	58.30	117	50.82	102	69-135	14	0-20	
1,1-Dichloroethene	2.728	50.00	66.65	128	57.15	109	51-153	15	0-21	
c-1,2-Dichloroethene	5.481	50.00	71.90	133	62.23	114	56-146	14	0-20	
t-1,2-Dichloroethene	ND	50.00	58.63	117	51.42	103	68-134	13	0-20	
1,2-Dichloropropane	ND	50.00	62.26	125	54.21	108	70-130	14	0-20	
1,3-Dichloropropane	ND	50.00	61.40	123	55.17	110	70-130	11	0-20	
2,2-Dichloropropane	ND	50.00	92.10	184	74.82	150	37-169	21	0-23	3

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0746			Page 10 of 10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	63.30	127	55.26	111	66-132	14	0-20	
c-1,3-Dichloropropene	ND	50.00	73.22	146	63.84	128	67-139	14	0-20	3
t-1,3-Dichloropropene	ND	50.00	73.86	148	64.78	130	58-136	13	0-20	3
Ethylbenzene	ND	50.00	65.51	131	58.19	116	70-134	12	0-24	
2-Hexanone	ND	50.00	57.15	114	51.30	103	59-149	11	0-20	
Isopropylbenzene	ND	50.00	66.62	133	58.90	118	70-141	12	0-27	
p-Isopropyltoluene	ND	50.00	66.76	134	59.65	119	65-143	11	0-39	
Methylene Chloride	ND	50.00	61.64	123	53.93	108	69-130	13	0-21	
4-Methyl-2-Pentanone	ND	50.00	57.14	114	50.77	102	67-139	12	0-20	
Naphthalene	ND	50.00	53.64	107	55.74	111	61-139	4	0-20	
n-Propylbenzene	ND	50.00	64.47	129	57.46	115	70-140	12	0-24	
Styrene	ND	50.00	64.05	128	57.47	115	18-174	11	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	67.03	134	60.30	121	70-135	11	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	63.09	126	56.89	114	70-137	10	0-20	
Tetrachloroethene	ND	50.00	42.09	84	37.46	75	33-147	12	0-30	
Toluene	ND	50.00	65.37	131	57.92	116	70-130	12	0-20	3
1,2,3-Trichlorobenzene	ND	50.00	56.62	113	58.09	116	64-142	3	0-22	
1,2,4-Trichlorobenzene	ND	50.00	57.48	115	57.40	115	60-144	0	0-24	
1,1,1-Trichloroethane	ND	50.00	70.51	141	60.44	121	68-140	15	0-20	3
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	70.10	140	60.91	122	21-190	14	0-40	
1,1,2-Trichloroethane	ND	50.00	58.56	117	53.37	107	70-130	9	0-20	
Trichloroethene	8.752	50.00	70.44	123	61.70	106	42-156	13	0-20	
Trichlorofluoromethane	ND	50.00	67.31	135	58.48	117	54-162	14	0-30	
1,2,3-Trichloropropane	ND	50.00	62.01	124	56.03	112	67-130	10	0-20	
1,2,4-Trimethylbenzene	ND	50.00	62.93	126	55.54	111	70-133	12	0-20	
1,3,5-Trimethylbenzene	ND	50.00	66.69	133	59.77	120	70-139	11	0-20	
Vinyl Acetate	ND	50.00	75.30	151	68.75	137	10-190	9	0-40	
Vinyl Chloride	ND	50.00	50.96	102	43.58	87	59-137	16	0-20	
p/m-Xylene	ND	100.0	130.7	131	116.0	116	67-145	12	0-28	
o-Xylene	ND	50.00	63.52	127	56.67	113	70-142	11	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	55.51	111	50.39	101	69-130	10	0-20	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0746			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
EP-021816	**Sample**	**Aqueous**	**ICP/MS 03**	**02/22/16 00:00**	**02/24/16 03:26**	**160222SA3**
EP-021816	**PDS**	**Aqueous**	**ICP/MS 03**	**02/22/16 00:00**	**02/24/16 03:15**	**160222SA3**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	0.001311	0.1000	0.1040	103	75-125	
Arsenic	0.01617	0.1000	0.1170	101	75-125	
Barium	0.008799	0.1000	0.1106	102	75-125	
Beryllium	ND	0.1000	0.09704	97	75-125	
Cadmium	ND	0.1000	0.09853	99	75-125	
Chromium	ND	0.1000	0.09836	98	75-125	
Cobalt	ND	0.1000	0.1036	104	75-125	
Copper	0.007999	0.1000	0.1125	105	75-125	
Lead	ND	0.1000	0.1086	109	75-125	
Molybdenum	0.006261	0.1000	0.1170	111	75-125	
Nickel	ND	0.1000	0.1043	104	75-125	
Selenium	ND	0.1000	0.07997	80	75-125	
Silver	ND	0.05000	0.04377	88	75-125	
Thallium	ND	0.1000	0.1052	105	75-125	
Vanadium	0.004014	0.1000	0.1092	105	75-125	
Zinc	0.009331	0.1000	0.1011	92	75-125	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2320B
Project: CG Roxane / SB0746	Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-1527-2	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/23/16 21:20**	**G0223ALKD1**
16-02-1527-2	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/23/16 21:20**	**G0223ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	600.0	598.0	0	0-25	

RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2320B
Project: CG Roxane / SB0746	Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-1527-2	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/23/16 21:20**	**G0223HCOD1**
16-02-1527-2	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/23/16 21:20**	**G0223HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	600.0	598.0	0	0-25	

RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0746			Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-1398-1	**Sample**	**Aqueous**	**N/A**	**02/22/16 00:00**	**02/22/16 18:00**	**G0222TDSD2**
16-02-1398-1	**Sample Duplicate**	**Aqueous**	**N/A**	**02/22/16 00:00**	**02/22/16 18:00**	**G0222TDSD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	855.0	840.0	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: N/A
Method: SM 4500 H+ B

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-1634-1	**Sample**	**Aqueous**	**PH 1**	**N/A**	**02/19/16 22:16**	**G0219PHD2**
16-02-1634-1	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**02/19/16 22:16**	**G0219PHD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	2.560	2.540	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 N Org B
Project: CG Roxane / SB0746	Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-02-1343-6	**Sample**	**Aqueous**	**BUR05**	**02/26/16 00:00**	**02/26/16 20:00**	**G0226TKND1**
16-02-1343-6	**Sample Duplicate**	**Aqueous**	**BUR05**	**02/26/16 00:00**	**02/26/16 20:00**	**G0226TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	3.150	3.290	4	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 300.0
Project: CG Roxane / SB0746	Page 1 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6474	**LCS**	**Aqueous**	**IC 15**	**N/A**	**02/19/16 22:47**	**160219L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	49.16	98	90-110	
Sulfate	50.00	48.83	98	90-110	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0746			Page 2 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-946	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/23/16 21:20**	**G0223ALKB1**
099-15-859-946	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**02/23/16 21:20**	**G0223ALKB1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	100.0	100.0	100	99.00	99	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2540 C
Project: CG Roxane / SB0746	Page 3 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-4969	**LCS**	**Aqueous**	**N/A**	**02/22/16**	**02/22/16 18:00**	**G0222TDSL2**
099-12-180-4969	**LCSD**	**Aqueous**	**N/A**	**02/22/16**	**02/22/16 18:00**	**G0222TDSL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	100.0	100	95.00	95	80-120	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0746			Page 4 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2734	**LCS**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226TPL1**
099-05-098-2734	**LCSD**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.4356	109	0.4382	110	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Project: CG Roxane / SB0746

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: N/A
Method: SM 4500 P B/E

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-190	**LCS**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226PO4L1**
099-14-276-190	**LCSD**	**Aqueous**	**UV 7**	**02/26/16**	**02/26/16 14:13**	**G0226PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.333	109	1.341	110	80-120	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: N/A
Method: SM 4500-NH3 B/C

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2304	**LCS**	**Aqueous**	**BUR05**	**02/27/16**	**02/27/16 18:15**	**G0227NH3L**
099-12-814-2304	**LCSD**	**Aqueous**	**BUR05**	**02/27/16**	**02/27/16 18:15**	**G0227NH3L**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ammonia (as N)	5.000	4.396	88	4.424	88	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0746			Page 7 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-393	**LCS**	**Aqueous**	**UV 7**	**02/25/16**	**02/25/16 20:10**	**G0225NO3L2**
099-14-282-393	**LCSD**	**Aqueous**	**UV 7**	**02/25/16**	**02/25/16 20:10**	**G0225NO3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5187	104	0.5251	105	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: N/A
Method: SM 5540C

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3029	**LCS**	**Aqueous**	**UV 8**	**02/19/16**	**02/19/16 21:58**	**G0219SURL4**
099-05-093-3029	**LCSD**	**Aqueous**	**UV 8**	**02/19/16**	**02/19/16 21:58**	**G0219SURL4**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9200	92	0.9400	94	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 200.7
Project: CG Roxane / SB0746	Page 9 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6475	**LCS**	**Aqueous**	**ICP 7300**	**02/22/16**	**02/24/16 15:58**	**160222LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5212	104	85-115	
Magnesium	0.5000	0.5063	101	85-115	
Sodium	5.000	5.382	108	85-115	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

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

Project: CG Roxane / SB0746

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: EPA 3020A Total
Method: EPA 6020

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5112	**LCS**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 20:31**	**160222LA3**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1057	106	80-120	73-127	
Arsenic	0.1000	0.1046	105	80-120	73-127	
Barium	0.1000	0.1039	104	80-120	73-127	
Beryllium	0.1000	0.1057	106	80-120	73-127	
Cadmium	0.1000	0.1041	104	80-120	73-127	
Chromium	0.1000	0.1054	105	80-120	73-127	
Cobalt	0.1000	0.1040	104	80-120	73-127	
Copper	0.1000	0.1090	109	80-120	73-127	
Lead	0.1000	0.1031	103	80-120	73-127	
Molybdenum	0.1000	0.1006	101	80-120	73-127	
Nickel	0.1000	0.1059	106	80-120	73-127	
Selenium	0.1000	0.1109	111	80-120	73-127	
Silver	0.05000	0.04434	89	80-120	73-127	
Thallium	0.1000	0.1001	100	80-120	73-127	
Vanadium	0.1000	0.1044	104	80-120	73-127	
Zinc	0.1000	0.1049	105	80-120	73-127	

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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

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 3005A Filt.
	Method: EPA 6020
Project: CG Roxane / SB0746	Page 11 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1045	**LCS**	**Aqueous**	**ICP/MS 03**	**02/22/16**	**02/24/16 20:31**	**160222LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1057	106	80-120	73-127	
Arsenic	0.1000	0.1046	105	80-120	73-127	
Barium	0.1000	0.1039	104	80-120	73-127	
Beryllium	0.1000	0.1057	106	80-120	73-127	
Cadmium	0.1000	0.1041	104	80-120	73-127	
Chromium	0.1000	0.1054	105	80-120	73-127	
Cobalt	0.1000	0.1040	104	80-120	73-127	
Copper	0.1000	0.1090	109	80-120	73-127	
Lead	0.1000	0.1031	103	80-120	73-127	
Molybdenum	0.1000	0.1006	101	80-120	73-127	
Nickel	0.1000	0.1059	106	80-120	73-127	
Selenium	0.1000	0.1109	111	80-120	73-127	
Silver	0.05000	0.04434	89	80-120	73-127	
Thallium	0.1000	0.1001	100	80-120	73-127	
Vanadium	0.1000	0.1044	104	80-120	73-127	
Zinc	0.1000	0.1049	105	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

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0746			Page 12 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7766	**LCS**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:06**	**160224LA1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01035	103	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Filt.
	Method: EPA 7470A
Project: CG Roxane / SB0746	Page 13 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-721	**LCS**	**Aqueous**	**Mercury 04**	**02/24/16**	**02/24/16 19:06**	**160224LA1F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01035	103	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: EPA 3510C
Method: EPA 8270C

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-55	**LCS**	**Aqueous**	**GC/MS SS**	**02/20/16**	**02/24/16 11:32**	**160220L06**
099-02-008-55	**LCSD**	**Aqueous**	**GC/MS SS**	**02/20/16**	**02/24/16 11:52**	**160220L06**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	71.24	71	67.00	67	45-110	34-121	6	0-11	
Acenaphthylene	100.0	69.30	69	64.15	64	50-105	41-114	8	0-20	
Aniline	100.0	42.47	42	39.38	39	50-130	37-143	8	0-20	ME
Anthracene	100.0	71.96	72	67.24	67	55-110	46-119	7	0-20	
Azobenzene	100.0	63.67	64	58.83	59	50-130	37-143	8	0-20	
Benzidine	100.0	46.85	47	40.58	41	50-130	37-143	14	0-20	ME
Benzo (a) Anthracene	100.0	69.67	70	65.11	65	55-110	46-119	7	0-20	
Benzo (a) Pyrene	100.0	74.17	74	68.71	69	55-110	46-119	8	0-20	
Benzo (b) Fluoranthene	100.0	78.56	79	66.83	67	45-120	32-132	16	0-20	
Benzo (g,h,i) Perylene	100.0	74.66	75	69.20	69	40-125	26-139	8	0-20	
Benzo (k) Fluoranthene	100.0	69.34	69	70.42	70	45-125	32-138	2	0-20	
Benzoic Acid	100.0	45.26	45	43.84	44	50-130	37-143	3	0-20	ME
Benzyl Alcohol	100.0	61.30	61	57.63	58	30-110	17-123	6	0-20	
Bis(2-Chloroethoxy) Methane	100.0	68.07	68	62.81	63	45-105	35-115	8	0-20	
Bis(2-Chloroethyl) Ether	100.0	68.03	68	62.72	63	35-110	22-122	8	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	62.41	62	58.56	59	25-130	8-148	6	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	67.27	67	62.42	62	40-125	26-139	7	0-20	
4-Bromophenyl-Phenyl Ether	100.0	67.23	67	64.04	64	50-115	39-126	5	0-20	
Butyl Benzyl Phthalate	100.0	68.49	68	62.63	63	45-115	33-127	9	0-20	
4-Chloro-3-Methylphenol	100.0	67.05	67	62.66	63	45-110	34-121	7	0-40	
4-Chloroaniline	100.0	46.75	47	43.37	43	15-110	0-126	7	0-20	
2-Chloronaphthalene	100.0	68.10	68	63.90	64	50-105	41-114	6	0-20	
2-Chlorophenol	100.0	68.18	68	64.00	64	35-105	23-117	6	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	69.81	70	64.90	65	50-110	40-120	7	0-20	
Chrysene	100.0	69.00	69	65.38	65	55-110	46-119	5	0-20	
2,6-Dichlorophenol	100.0	70.02	70	65.69	66	42-120	29-133	6	0-21	
Di-n-Butyl Phthalate	100.0	71.70	72	66.22	66	55-115	45-125	8	0-20	
Di-n-Octyl Phthalate	100.0	68.41	68	63.51	64	35-135	18-152	7	0-20	
Dibenz (a,h) Anthracene	100.0	71.45	71	66.89	67	40-125	26-139	7	0-20	
Dibenzofuran	100.0	70.79	71	65.49	65	55-105	47-113	8	0-20	
1,2-Dichlorobenzene	100.0	69.66	70	64.00	64	35-100	24-111	8	0-20	
1,3-Dichlorobenzene	100.0	69.50	70	65.35	65	30-100	18-112	6	0-20	
1,4-Dichlorobenzene	100.0	69.55	70	63.66	64	30-100	18-112	9	0-26	
3,3'-Dichlorobenzidine	100.0	45.83	46	42.28	42	20-110	5-125	8	0-20	
2,4-Dichlorophenol	100.0	69.61	70	65.01	65	50-105	41-114	7	0-20	
Diethyl Phthalate	100.0	70.81	71	65.80	66	40-120	27-133	7	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Date Received: 02/19/16
Work Order: 16-02-1661
Preparation: EPA 3510C
Method: EPA 8270C

Project: CG Roxane / SB0746

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Dimethyl Phthalate	100.0	69.06	69	64.05	64	25-125	8-142	8	0-20	
2,4-Dimethylphenol	100.0	69.62	70	63.99	64	30-110	17-123	8	0-20	
4,6-Dinitro-2-Methylphenol	100.0	66.19	66	63.95	64	40-130	25-145	3	0-20	
2,4-Dinitrophenol	100.0	58.42	58	55.17	55	15-140	0-161	6	0-20	
2,4-Dinitrotoluene	100.0	82.37	82	78.14	78	50-120	38-132	5	0-36	
2,6-Dinitrotoluene	100.0	80.55	81	73.49	73	50-115	39-126	9	0-20	
Fluoranthene	100.0	78.36	78	72.41	72	55-115	45-125	8	0-20	
Fluorene	100.0	72.28	72	67.40	67	50-110	40-120	7	0-20	
Hexachloro-1,3-Butadiene	100.0	71.45	71	66.33	66	25-105	12-118	7	0-20	
Hexachlorobenzene	100.0	68.97	69	66.01	66	50-110	40-120	4	0-20	
Hexachlorocyclopentadiene	100.0	72.92	73	69.30	69	50-130	37-143	5	0-20	
Hexachloroethane	100.0	72.71	73	66.87	67	30-95	19-106	8	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	69.89	70	65.49	65	45-125	32-138	6	0-20	
Isophorone	100.0	66.24	66	62.32	62	50-110	40-120	6	0-20	
2-Methylnaphthalene	100.0	71.58	72	67.39	67	45-105	35-115	6	0-20	
1-Methylnaphthalene	100.0	63.39	63	59.77	60	45-105	35-115	6	0-20	
2-Methylphenol	100.0	66.95	67	62.20	62	40-110	28-122	7	0-20	
3/4-Methylphenol	200.0	131.1	66	123.5	62	30-110	17-123	6	0-20	
N-Nitroso-di-n-propylamine	100.0	70.44	70	64.65	65	35-130	19-146	9	0-13	
N-Nitrosodimethylamine	100.0	74.69	75	69.34	69	25-110	11-124	7	0-20	
N-Nitrosodiphenylamine	100.0	83.64	84	78.58	79	50-110	40-120	6	0-20	
Naphthalene	100.0	68.71	69	64.23	64	40-100	30-110	7	0-20	
4-Nitroaniline	100.0	80.04	80	73.32	73	35-120	21-134	9	0-20	
3-Nitroaniline	100.0	62.85	63	58.45	58	20-125	2-142	7	0-20	
2-Nitroaniline	100.0	81.96	82	75.75	76	50-115	39-126	8	0-20	
Nitrobenzene	100.0	73.32	73	67.51	68	45-110	34-121	8	0-20	
4-Nitrophenol	100.0	72.82	73	67.31	67	20-150	0-172	8	0-40	
2-Nitrophenol	100.0	72.08	72	67.93	68	40-115	28-128	6	0-20	
Pentachlorophenol	100.0	72.56	73	70.71	71	40-115	28-128	3	0-40	
Phenanthrene	100.0	74.65	75	69.40	69	50-115	39-126	7	0-20	
Phenol	100.0	66.54	67	62.52	63	10-115	0-132	6	0-23	
Pyrene	100.0	64.11	64	60.60	61	50-130	37-143	6	0-20	
Pyridine	100.0	93.25	93	86.89	87	52-115	42-126	7	0-20	
1,2,4-Trichlorobenzene	100.0	70.60	71	66.56	67	35-105	23-117	6	0-21	
2,4,6-Trichlorophenol	100.0	67.05	67	62.93	63	50-115	39-126	6	0-20	
2,4,5-Trichlorophenol	100.0	66.06	66	62.32	62	50-110	40-120	6	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 3

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	02/19/16
924 Anacapa Street, Suite 4A		Work Order:	16-02-1661
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0746			Page 16 of 18

Total number of ME compounds allowed: 4

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
Project: CG Roxane / SB0746	Page 17 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2621	**LCS**	**Aqueous**	**GC/MS XX**	**02/23/16**	**02/23/16 11:30**	**160223L014**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	55.10	110	12-150	0-173	
Benzene	50.00	53.56	107	80-120	73-127	
Bromobenzene	50.00	55.90	112	80-120	73-127	
Bromochloromethane	50.00	53.65	107	80-122	73-129	
Bromodichloromethane	50.00	52.53	105	80-123	73-130	
Bromoform	50.00	54.09	108	74-134	64-144	
Bromomethane	50.00	51.02	102	22-160	0-183	
2-Butanone	50.00	51.42	103	44-164	24-184	
n-Butylbenzene	50.00	55.54	111	80-132	71-141	
sec-Butylbenzene	50.00	54.96	110	80-129	72-137	
tert-Butylbenzene	50.00	59.24	118	80-130	72-138	
Carbon Disulfide	50.00	48.11	96	60-126	49-137	
Carbon Tetrachloride	50.00	60.02	120	64-148	50-162	
Chlorobenzene	50.00	53.24	106	80-120	73-127	
Chloroethane	50.00	41.97	84	63-123	53-133	
Chloroform	50.00	50.91	102	79-121	72-128	
Chloromethane	50.00	42.80	86	43-133	28-148	
2-Chlorotoluene	50.00	54.73	109	80-130	72-138	
4-Chlorotoluene	50.00	52.83	106	80-121	73-128	
Dibromochloromethane	50.00	54.32	109	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	50.25	101	68-128	58-138	
1,2-Dibromoethane	50.00	53.22	106	80-120	73-127	
Dibromomethane	50.00	53.39	107	80-121	73-128	
1,2-Dichlorobenzene	50.00	53.73	107	80-120	73-127	
1,3-Dichlorobenzene	50.00	54.07	108	80-121	73-128	
1,4-Dichlorobenzene	50.00	53.22	106	80-120	73-127	
Dichlorodifluoromethane	50.00	50.73	101	25-187	0-214	
1,1-Dichloroethane	50.00	50.73	101	75-120	68-128	
1,2-Dichloroethane	50.00	48.74	97	80-123	73-130	
1,1-Dichloroethene	50.00	50.30	101	74-122	66-130	
c-1,2-Dichloroethene	50.00	54.02	108	75-123	67-131	
t-1,2-Dichloroethene	50.00	47.83	96	70-124	61-133	
1,2-Dichloropropane	50.00	51.76	104	80-120	73-127	
1,3-Dichloropropane	50.00	53.88	108	80-120	73-127	
2,2-Dichloropropane	50.00	67.62	135	49-151	32-168	
1,1-Dichloropropene	50.00	51.35	103	76-120	69-127	
c-1,3-Dichloropropene	50.00	61.49	123	80-124	73-131	
t-1,3-Dichloropropene	50.00	62.37	125	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 02/19/16
924 Anacapa Street, Suite 4A	Work Order: 16-02-1661
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
Project: CG Roxane / SB0746	Page 18 of 18

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	54.53	109	80-120	73-127	
2-Hexanone	50.00	50.47	101	57-147	42-162	
Isopropylbenzene	50.00	55.06	110	80-127	72-135	
p-Isopropyltoluene	50.00	56.14	112	80-125	72-132	
Methylene Chloride	50.00	51.53	103	74-122	66-130	
4-Methyl-2-Pentanone	50.00	47.48	95	71-125	62-134	
Naphthalene	50.00	52.91	106	54-144	39-159	
n-Propylbenzene	50.00	53.83	108	80-127	72-135	
Styrene	50.00	54.90	110	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	57.55	115	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	54.62	109	78-126	70-134	
Tetrachloroethene	50.00	37.02	74	57-141	43-155	
Toluene	50.00	54.30	109	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	55.94	112	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	55.03	110	57-153	41-169	
1,1,1-Trichloroethane	50.00	55.39	111	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	53.47	107	58-148	43-163	
1,1,2-Trichloroethane	50.00	51.85	104	80-120	73-127	
Trichloroethene	50.00	51.28	103	80-120	73-127	
Trichlorofluoromethane	50.00	50.58	101	64-136	52-148	
1,2,3-Trichloropropane	50.00	53.65	107	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	53.21	106	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	56.24	112	80-126	72-134	
Vinyl Acetate	50.00	64.25	129	34-172	11-195	
Vinyl Chloride	50.00	44.81	90	67-127	57-137	
p/m-Xylene	100.0	109.8	110	80-127	72-135	
o-Xylene	50.00	53.81	108	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	48.98	98	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-02-1661 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	969	IC 15	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	915	Mercury 04	1
EPA 7470A	EPA 7470A Total	915	Mercury 04	1
EPA 8260B	EPA 5030C	1042	GC/MS XX	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2540 C	N/A	1009	N/A	1
SM 4500 H+ B	N/A	650	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 7	1
SM 5540C	N/A	990	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

Work Order: 16-02-1661 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.

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CHAIN OF CUSTODY RECORD

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

WO # / LAB USE ONLY: **16-02-1661**

DATE: 2-18-16
PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants	CLIENT PROJECT NAME / NUMBER: CG Roxane
ADDRESS: 924 Anacapa St. Suite 4A	P.O. NO.: SB0746
CITY: Santa Barbara STATE: CA ZIP: 93101	PROJECT CONTACT: Ryan Smith
TEL: 805-897-3800 E-MAIL: Rsmith@geosyntec.com	SAMPLER(S): (PRINT) Kenjo Agustsson

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
2 Cooler(s) with this COC shipped via FedEx
Geosyntec specific EDD

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (lab filtered)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
1	AP-021816	2-18-16	1400	W	17	6	11	1	X	X	X	X	X	X	X	X	X	X	X	X	X
2	FP-021816	2-18-16	1430	W	17	6	11	1	X	X	X	X	X	X	X	X	X	X	X	X	X
3	QCTB-01-021816	2-18-16	—	W	2		2				X										

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature]	[signature] ECI	2-19-16	1330
[signature]	[signature] BC	2/19/16	1740

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WORK ORDER NUMBER: 16-02- 1661

SAMPLE RECEIPT CHECKLIST

COOLER 1 **OF** 1

CLIENT: Geosyntec Consultant

DATE: 02 / 19 / 2016

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

Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 3.2 °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: 820

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 820
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1054

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~~ 1054 2/19/16			
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:** 160127A **)**

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB

☐ 125PBznna ☐ 250AGB ☐ 250CGB ☑ 250CGBs (3) ☑ 250PB (2) ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☑ 500PB ☑ 1AGB ☐ 1AGBna₂ ☑ 1AGBs (2) ☑ 1PB ☐ 1PBna ☐ ________ ☐ ________ ☐ ________ ☐ ________

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, **na₂** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1054

Reviewed by: 728

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Stephen Nowak

From: Ryan Smith [RSmith@Geosyntec.com]
Sent: Tuesday, February 23, 2016 10:01 AM
To: Stephen Nowak
Subject: RE: CG Roxane / SB0746 - 16-02-1661 - COC Document

Steve,

Please change the Sample ID of "AP-021816" to "EP-021816"

Thank you.

Ryan Smith, P.G., C.Hg
Senior Geologist

From: Stephen Nowak [mailto:StephenNowak@eurofinsUS.com]
Sent: Monday, February 22, 2016 10:03 AM
To: Ryan Smith
Subject: CG Roxane / SB0746 - 16-02-1661 - COC Document

Stephen Nowak
Project Manager

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Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

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WORK ORDER NUMBER: 16-04-0486

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: CG Roxane / SB0746

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

Approved for release on 04/15/2016 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.

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Contents

Client Project Name: CG Roxane / SB0746
Work Order Number: 16-04-0486

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Work Order Narrative

Work Order: 16-04-0486 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/08/16. They were assigned to Work Order 16-04-0486.

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.

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Sample Summary

Client:	Geosyntec Consultants 924 Anacapa Street, Suite 4A Santa Barbara, CA 93101-2177	Work Order:	16-04-0486
		Project Name:	CG Roxane / SB0746
		PO Number:	
		Date/Time Received:	04/08/16 10:30
		Number of Containers:	21
Attn:	Ryan Smith		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FP-040716	16-04-0486-1	04/07/16 12:00	19	Aqueous
QCTB-01-040716	16-04-0486-2	04/07/16 00:00	2	Aqueous

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Detections Summary

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

Work Order: 16-04-0486
Project Name: CG Roxane / SB0746
Received: 04/08/16

Attn: Ryan Smith

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Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
FP-040716 (16-04-0486-1)						
Calcium	22.3		0.100	mg/L	EPA 200.7	N/A
Magnesium	1.59		0.100	mg/L	EPA 200.7	N/A
Sodium	24.8		0.500	mg/L	EPA 200.7	N/A
Chloride	3.1		1.0	mg/L	EPA 300.0	N/A
Sulfate	35		1.0	mg/L	EPA 300.0	N/A
Barium	0.0153		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Zinc	0.0174		0.00500	mg/L	EPA 6020	EPA 3005A Filt.
Barium	0.0166		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	0.0114		0.00500	mg/L	EPA 6020	EPA 3020A Total
Alkalinity, Total (as CaCO3)	64.0		1.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	64.0		1.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	195		1.00	mg/L	SM 2540 C	N/A
pH	7.05	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	0.32		0.10	mg/L	SM 4500 P B/E	N/A
Total Phosphate	0.98		0.31	mg/L	SM 4500 P B/E	N/A
Nitrate-Nitrite (as N)	0.32		0.10	mg/L	SM 4500-NO3 E	N/A
MBAS	0.15		0.10	mg/L	SM 5540C	N/A
Total Nitrogen	1.5		0.50	mg/L	Total Nitrogen by Calc	N/A

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

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* MDL is shown

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
		Units:	mg/L
Project: CG Roxane / SB0746			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-S**	**04/07/16 12:00**	**Aqueous**	**IC 10**	**N/A**	**04/08/16 17:28**	**160408L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	3.1	1.0	1.00	
Sulfate	35	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	**099-12-906-6601**	**N/A**	**Aqueous**	**IC 10**	**N/A**	**04/08/16 09:53**	**160408L01**

Parameter	Result	RL	DF	Qualifiers
Chloride	ND	1.0	1.00	
Sulfate	ND	1.0	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 200.7
		Units:	mg/L
Project: CG Roxane / SB0746			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-L**	**04/07/16 12:00**	**Aqueous**	**ICP 7300**	**04/09/16**	**04/13/16 12:48**	**160409LA3A**

Parameter	Result	RL	DF	Qualifiers
Calcium	22.3	0.100	1.00	
Magnesium	1.59	0.100	1.00	
Sodium	24.8	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	**097-01-012-6528**	**N/A**	**Aqueous**	**ICP 7300**	**04/09/16**	**04/13/16 16:41**	**160409LA3A**

Parameter	Result	RL	DF	Qualifiers
Calcium	ND	0.100	1.00	
Magnesium	ND	0.100	1.00	
Sodium	ND	0.500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0746			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-M**	**04/07/16 12:00**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 16:43**	**160411LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	0.0166	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0114	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
	Units: mg/L
Project: CG 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	**096-06-003-5153**	**N/A**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:04**	**160411LA2**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
		Units:	mg/L
Project: CG Roxane / SB0746			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-N**	**04/07/16 12:00**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 16:41**	**160411LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	0.0153	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	0.0174	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 3005A Filt.
	Method: EPA 6020
	Units: mg/L
Project: CG 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	**099-15-693-1092**	**N/A**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:07**	**160411LA3F**

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.00100	1.00	
Arsenic	ND	0.00100	1.00	
Barium	ND	0.00100	1.00	
Beryllium	ND	0.00100	1.00	
Cadmium	ND	0.00100	1.00	
Chromium	ND	0.00100	1.00	
Cobalt	ND	0.00100	1.00	
Copper	ND	0.00100	1.00	
Lead	ND	0.00100	1.00	
Molybdenum	ND	0.00100	1.00	
Nickel	ND	0.00100	1.00	
Selenium	ND	0.00100	1.00	
Silver	ND	0.00100	1.00	
Thallium	ND	0.00100	1.00	
Vanadium	ND	0.00100	1.00	
Zinc	ND	0.00500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
		Units:	mg/L
Project: CG Roxane / SB0746			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-M**	**04/07/16 12:00**	**Aqueous**	**Mercury 04**	**04/13/16**	**04/13/16 22:15**	**160413LA4**

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	**099-04-008-7828**	**N/A**	**Aqueous**	**Mercury 04**	**04/13/16**	**04/13/16 21:26**	**160413LA4**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Filt.
	Method: EPA 7470A
	Units: mg/L
Project: CG Roxane / SB0746	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-N**	**04/07/16 12:00**	**Aqueous**	**Mercury 04**	**04/11/16**	**04/11/16 21:13**	**160411LA4F**

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	**099-15-763-748**	**N/A**	**Aqueous**	**Mercury 04**	**04/11/16**	**04/11/16 20:17**	**160411LA4F**

Parameter	Result	RL	DF	Qualifiers
Mercury	ND	0.000500	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-I**	**04/07/16 12:00**	**Aqueous**	**GC/MS SS**	**04/13/16**	**04/14/16 12:31**	**160413L06A**

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	9.8	1.00	
Acenaphthylene	ND	9.8	1.00	
Aniline	ND	9.8	1.00	
Anthracene	ND	9.8	1.00	
Azobenzene	ND	9.8	1.00	
Benzidine	ND	49	1.00	
Benzo (a) Anthracene	ND	9.8	1.00	
Benzo (a) Pyrene	ND	9.8	1.00	
Benzo (b) Fluoranthene	ND	9.8	1.00	
Benzo (g,h,i) Perylene	ND	9.8	1.00	
Benzo (k) Fluoranthene	ND	9.8	1.00	
Benzoic Acid	ND	49	1.00	
Benzyl Alcohol	ND	9.8	1.00	
Bis(2-Chloroethoxy) Methane	ND	9.8	1.00	
Bis(2-Chloroethyl) Ether	ND	25	1.00	
Bis(2-Chloroisopropyl) Ether	ND	9.8	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	9.8	1.00	
4-Bromophenyl-Phenyl Ether	ND	9.8	1.00	
Butyl Benzyl Phthalate	ND	9.8	1.00	
4-Chloro-3-Methylphenol	ND	9.8	1.00	
4-Chloroaniline	ND	9.8	1.00	
2-Chloronaphthalene	ND	9.8	1.00	
2-Chlorophenol	ND	9.8	1.00	
4-Chlorophenyl-Phenyl Ether	ND	9.8	1.00	
Chrysene	ND	9.8	1.00	
2,6-Dichlorophenol	ND	9.8	1.00	
Di-n-Butyl Phthalate	ND	9.8	1.00	
Di-n-Octyl Phthalate	ND	9.8	1.00	
Dibenz (a,h) Anthracene	ND	9.8	1.00	
Dibenzofuran	ND	9.8	1.00	
1,2-Dichlorobenzene	ND	9.8	1.00	
1,3-Dichlorobenzene	ND	9.8	1.00	
1,4-Dichlorobenzene	ND	9.8	1.00	
3,3'-Dichlorobenzidine	ND	25	1.00	
2,4-Dichlorophenol	ND	9.8	1.00	

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

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Analytical Report

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

Date Received: 04/08/16
Work Order: 16-04-0486
Preparation: EPA 3510C
Method: EPA 8270C
Units: ug/L

Project: CG Roxane / SB0746

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	9.8	1.00	
Dimethyl Phthalate	ND	9.8	1.00	
2,4-Dimethylphenol	ND	9.8	1.00	
4,6-Dinitro-2-Methylphenol	ND	49	1.00	
2,4-Dinitrophenol	ND	49	1.00	
2,4-Dinitrotoluene	ND	9.8	1.00	
2,6-Dinitrotoluene	ND	9.8	1.00	
Fluoranthene	ND	9.8	1.00	
Fluorene	ND	9.8	1.00	
Hexachloro-1,3-Butadiene	ND	9.8	1.00	
Hexachlorobenzene	ND	9.8	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	9.8	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	9.8	1.00	
Isophorone	ND	9.8	1.00	
2-Methylnaphthalene	ND	9.8	1.00	
1-Methylnaphthalene	ND	9.8	1.00	
2-Methylphenol	ND	9.8	1.00	
3/4-Methylphenol	ND	9.8	1.00	
N-Nitroso-di-n-propylamine	ND	9.8	1.00	
N-Nitrosodimethylamine	ND	9.8	1.00	
N-Nitrosodiphenylamine	ND	9.8	1.00	
Naphthalene	ND	9.8	1.00	
4-Nitroaniline	ND	9.8	1.00	
3-Nitroaniline	ND	9.8	1.00	
2-Nitroaniline	ND	9.8	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	9.8	1.00	
2-Nitrophenol	ND	9.8	1.00	
Pentachlorophenol	ND	9.8	1.00	
Phenanthrene	ND	9.8	1.00	
Phenol	ND	9.8	1.00	
Pyrene	ND	9.8	1.00	
Pyridine	ND	9.8	1.00	
1,2,4-Trichlorobenzene	ND	9.8	1.00	
2,4,6-Trichlorophenol	ND	9.8	1.00	
2,4,5-Trichlorophenol	ND	9.8	1.00	

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

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Analytical Report

Geosyntec Consultants	Date Received:	04/08/16
924 Anacapa Street, Suite 4A	Work Order:	16-04-0486
Santa Barbara, CA 93101-2177	Preparation:	EPA 3510C
	Method:	EPA 8270C
	Units:	ug/L
Project: CG Roxane / SB0746		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	50-110	
2-Fluorophenol	51	20-110	
Nitrobenzene-d5	82	40-110	
p-Terphenyl-d14	86	50-135	
Phenol-d6	28	10-115	
2,4,6-Tribromophenol	80	40-125	

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

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Analytical Report

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

Date Received:	04/08/16
Work Order:	16-04-0486
Preparation:	EPA 3510C
Method:	EPA 8270C
Units:	ug/L

Project: CG Roxane / SB0746

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-02-008-57**	**N/A**	**Aqueous**	**GC/MS SS**	**04/13/16**	**04/14/16 10:34**	**160413L06A**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 5 of 6

Parameter	Result	RL	DF	Qualifiers
Diethyl Phthalate	ND	10	1.00	
Dimethyl Phthalate	ND	10	1.00	
2,4-Dimethylphenol	ND	10	1.00	
4,6-Dinitro-2-Methylphenol	ND	50	1.00	
2,4-Dinitrophenol	ND	50	1.00	
2,4-Dinitrotoluene	ND	10	1.00	
2,6-Dinitrotoluene	ND	10	1.00	
Fluoranthene	ND	10	1.00	
Fluorene	ND	10	1.00	
Hexachloro-1,3-Butadiene	ND	10	1.00	
Hexachlorobenzene	ND	10	1.00	
Hexachlorocyclopentadiene	ND	25	1.00	
Hexachloroethane	ND	10	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.00	
Isophorone	ND	10	1.00	
2-Methylnaphthalene	ND	10	1.00	
1-Methylnaphthalene	ND	10	1.00	
2-Methylphenol	ND	10	1.00	
3/4-Methylphenol	ND	10	1.00	
N-Nitroso-di-n-propylamine	ND	10	1.00	
N-Nitrosodimethylamine	ND	10	1.00	
N-Nitrosodiphenylamine	ND	10	1.00	
Naphthalene	ND	10	1.00	
4-Nitroaniline	ND	10	1.00	
3-Nitroaniline	ND	10	1.00	
2-Nitroaniline	ND	10	1.00	
Nitrobenzene	ND	25	1.00	
4-Nitrophenol	ND	10	1.00	
2-Nitrophenol	ND	10	1.00	
Pentachlorophenol	ND	10	1.00	
Phenanthrene	ND	10	1.00	
Phenol	ND	10	1.00	
Pyrene	ND	10	1.00	
Pyridine	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	10	1.00	
2,4,6-Trichlorophenol	ND	10	1.00	
2,4,5-Trichlorophenol	ND	10	1.00	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
		Units:	ug/L
Project: CG Roxane / SB0746			Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	87	50-110	
2-Fluorophenol	66	20-110	
Nitrobenzene-d5	100	40-110	
p-Terphenyl-d14	91	50-135	
Phenol-d6	37	10-115	
2,4,6-Tribromophenol	92	40-125	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FP-040716	**16-04-0486-1-A**	**04/07/16 12:00**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 13:01**	**160409L007**

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	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 2 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	101	80-120	
Dibromofluoromethane	122	78-126	
1,2-Dichloroethane-d4	117	75-135	
Toluene-d8	99	80-120	

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

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Analytical Report

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
	Units: ug/L
Project: CG Roxane / SB0746	Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QCTB-01-040716	**16-04-0486-2-A**	**04/07/16 00:00**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 12:33**	**160409L007**

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.

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			Page 4 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	103	80-120	
Dibromofluoromethane	112	78-126	
1,2-Dichloroethane-d4	116	75-135	
Toluene-d8	100	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			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	**099-14-316-2727**	**N/A**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 12:05**	**160409L007**

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.

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: CG Roxane / SB0746			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	102	80-120	
Dibromofluoromethane	111	78-126	
1,2-Dichloroethane-d4	117	75-135	
Toluene-d8	99	80-120	

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

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Analytical Report

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177			
Project: CG Roxane / SB0746			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
FP-040716	**16-04-0486-1**	**04/07/16 12:00**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	64.0	1.00	1.00		mg/L	N/A	04/11/16	SM 2320B
Bicarbonate (as CaCO3)	64.0	1.00	1.00		mg/L	N/A	04/11/16	SM 2320B
Solids, Total Dissolved	195	1.00	1.00		mg/L	04/12/16	04/12/16	SM 2540 C
pH	7.05	0.01	1.00	BV,BU	pH units	N/A	04/08/16	SM 4500 H+ B
Total Kjeldahl Nitrogen	1.3	0.50	1.00		mg/L	04/12/16	04/12/16	SM 4500 N Org B
Phosphorus, Total	0.32	0.10	1.00		mg/L	04/11/16	04/11/16	SM 4500 P B/E
Total Phosphate	0.98	0.31	1.00		mg/L	04/11/16	04/11/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	04/12/16	04/12/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	0.32	0.10	1.00		mg/L	04/12/16	04/12/16	SM 4500-NO3 E
MBAS	0.15	0.10	1.00		mg/L	04/08/16	04/08/16	SM 5540C
Total Nitrogen	1.5	0.50	1.00		mg/L	N/A	04/14/16	Total Nitrogen by Calc

Method Blank		**N/A**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO3)	ND	1.0	1.00		mg/L	N/A	04/11/16	SM 2320B
Bicarbonate (as CaCO3)	ND	1.0	1.00		mg/L	N/A	04/11/16	SM 2320B
Solids, Total Dissolved	ND	1.0	1.00		mg/L	04/12/16	04/12/16	SM 2540 C
Total Kjeldahl Nitrogen	ND	0.50	1.00		mg/L	04/12/16	04/12/16	SM 4500 N Org B
Phosphorus, Total	ND	0.10	1.00		mg/L	04/11/16	04/11/16	SM 4500 P B/E
Total Phosphate	ND	0.31	1.00		mg/L	04/11/16	04/11/16	SM 4500 P B/E
Ammonia (as N)	ND	0.10	1.00		mg/L	04/12/16	04/12/16	SM 4500-NH3 B/C
Nitrate-Nitrite (as N)	ND	0.10	1.00		mg/L	04/12/16	04/12/16	SM 4500-NO3 E
MBAS	ND	0.10	1.00		mg/L	04/08/16	04/08/16	SM 5540C

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

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Quality Control - Spike/Spike Duplicate

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

Date Received: 04/08/16
Work Order: 16-04-0486
Preparation: N/A
Method: EPA 300.0

Project: CG Roxane / SB0746

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0476-1	**Sample**	**Aqueous**	**IC 10**	**N/A**	**04/08/16 14:24**	**160408S01**
16-04-0476-1	**Matrix Spike**	**Aqueous**	**IC 10**	**N/A**	**04/08/16 15:02**	**160408S01**
16-04-0476-1	**Matrix Spike Duplicate**	**Aqueous**	**IC 10**	**N/A**	**04/08/16 15:21**	**160408S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	2.073	50.00	53.29	102	53.22	102	80-120	0	0-20	
Sulfate	1.388	50.00	51.86	101	51.53	100	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 04/08/16
Work Order: 16-04-0486
Preparation: N/A
Method: SM 4500 P B/E

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-040716	**Sample**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 19:55**	**G0411TPS1**
FP-040716	**Matrix Spike**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 19:55**	**G0411TPS1**
FP-040716	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 19:55**	**G0411TPS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.3210	0.4000	0.6049	71	0.6282	77	70-130	4	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 P B/E
Project: CG Roxane / SB0746	Page 3 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-040716	**Sample**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 17:55**	**G0411PO4S1**
FP-040716	**Matrix Spike**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 17:55**	**G0411PO4S1**
FP-040716	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 17:55**	**G0411PO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	0.9822	1.220	1.851	71	1.922	77	70-130	4	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500-NO3 E
Project: CG Roxane / SB0746			Page 4 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0445-1	**Sample**	**Aqueous**	**UV 7**	**04/12/16**	**04/12/16 21:37**	**G0412NO3S2**
16-04-0445-1	**Matrix Spike**	**Aqueous**	**UV 7**	**04/12/16**	**04/12/16 21:37**	**G0412NO3S2**
16-04-0445-1	**Matrix Spike Duplicate**	**Aqueous**	**UV 7**	**04/12/16**	**04/12/16 21:37**	**G0412NO3S2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.7010	1.000	1.482	78	1.440	74	70-130	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 5540C
Project: CG Roxane / SB0746			Page 5 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-040716	**Sample**	**Aqueous**	**UV 8**	**04/08/16**	**04/08/16 15:09**	**G0408SURS1**
FP-040716	**Matrix Spike**	**Aqueous**	**UV 8**	**04/08/16**	**04/08/16 15:09**	**G0408SURS1**
FP-040716	**Matrix Spike Duplicate**	**Aqueous**	**UV 8**	**04/08/16**	**04/08/16 15:09**	**G0408SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	0.1500	1.000	1.080	93	1.050	90	70-130	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 200.7
Project: CG Roxane / SB0746	Page 6 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0580-1	**Sample**	**Aqueous**	**ICP 7300**	**04/09/16**	**04/13/16 13:03**	**160409SA3A**
16-04-0580-1	**Matrix Spike**	**Aqueous**	**ICP 7300**	**04/09/16**	**04/13/16 13:04**	**160409SA3A**
16-04-0580-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP 7300**	**04/09/16**	**04/13/16 13:05**	**160409SA3A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Calcium	318.4	0.5000	292.9	4X	318.8	4X	80-120	4X	0-20	Q
Magnesium	117.3	0.5000	109.0	4X	113.4	4X	80-120	4X	0-20	Q
Sodium	449.0	5.000	418.3	4X	452.2	4X	80-120	4X	0-20	Q

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
Project: CG Roxane / SB0746	Page 7 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0374-1	**Sample**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:34**	**160411SA2**
16-04-0374-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:19**	**160411SA2**
16-04-0374-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:22**	**160411SA2**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	0.001357	0.1000	0.1060	105	0.1030	102	85-133	3	0-11	
Arsenic	0.003330	0.1000	0.1028	99	0.1019	99	73-127	1	0-11	
Barium	0.05478	0.1000	0.1621	107	0.1573	103	74-128	3	0-10	
Beryllium	ND	0.1000	0.08774	88	0.08398	84	56-122	4	0-11	
Cadmium	ND	0.1000	0.09742	97	0.09539	95	84-114	2	0-8	
Chromium	ND	0.1000	0.1005	100	0.09647	96	73-133	4	0-11	
Cobalt	0.004668	0.1000	0.1046	100	0.1029	98	79-121	2	0-10	
Copper	0.005941	0.1000	0.1012	95	0.1010	95	72-108	0	0-10	
Lead	ND	0.1000	0.1112	111	0.1085	109	79-121	2	0-10	
Molybdenum	0.001896	0.1000	0.1218	120	0.1189	117	83-137	2	0-10	
Nickel	0.01440	0.1000	0.1100	96	0.1095	95	68-122	0	0-10	
Selenium	ND	0.1000	0.1036	104	0.09821	98	59-125	5	0-12	
Silver	ND	0.05000	0.04861	97	0.04765	95	68-128	2	0-14	
Thallium	ND	0.1000	0.1102	110	0.1071	107	73-121	3	0-11	
Vanadium	0.002863	0.1000	0.1115	109	0.1126	110	77-137	1	0-15	
Zinc	0.07608	0.1000	0.1552	79	0.1545	78	43-145	0	0-39	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 04/08/16
Work Order: 16-04-0486
Preparation: EPA 3005A Filt.
Method: EPA 6020

Project: CG Roxane / SB0746

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0376-1	**Sample**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 16:23**	**160411SA3**
16-04-0376-1	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 16:13**	**160411SA3**
16-04-0376-1	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 16:16**	**160411SA3**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.1000	0.1069	107	0.1045	104	85-133	2	0-11	
Arsenic	0.001318	0.1000	0.1075	106	0.1052	104	73-127	2	0-11	
Barium	0.2805	0.1000	0.1580	0	0.1540	0	74-128	3	0-10	3
Beryllium	ND	0.1000	0.1048	105	0.1026	103	56-122	2	0-11	
Cadmium	ND	0.1000	0.1053	105	0.1030	103	84-114	2	0-8	
Chromium	0.001092	0.1000	0.1088	108	0.1096	109	73-133	1	0-11	
Cobalt	ND	0.1000	0.1029	103	0.09845	98	79-121	4	0-10	
Copper	0.005691	0.1000	0.1088	103	0.1058	100	72-108	3	0-10	
Lead	ND	0.1000	0.1062	106	0.1045	104	79-121	2	0-10	
Molybdenum	0.005139	0.1000	0.1161	111	0.1123	107	83-137	3	0-10	
Nickel	0.008548	0.1000	0.1112	103	0.1077	99	68-122	3	0-10	
Selenium	ND	0.1000	0.1021	102	0.09826	98	59-125	4	0-12	
Silver	ND	0.05000	0.05087	102	0.05132	103	68-128	1	0-14	
Thallium	ND	0.1000	0.1043	104	0.1018	102	73-121	3	0-11	
Vanadium	0.006929	0.1000	0.1129	106	0.1119	105	77-137	1	0-15	
Zinc	0.07602	0.1000	0.1070	31	0.1096	34	43-145	2	0-39	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Project: CG Roxane / SB0746

Date Received:	04/08/16
Work Order:	16-04-0486
Preparation:	EPA 7470A Total
Method:	EPA 7470A

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0585-3	**Sample**	**Aqueous**	**Mercury 04**	**04/13/16**	**04/13/16 21:30**	**160413SA4**
16-04-0585-3	**Matrix Spike**	**Aqueous**	**Mercury 04**	**04/13/16**	**04/13/16 21:33**	**160413SA4**
16-04-0585-3	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**04/13/16**	**04/13/16 21:39**	**160413SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.005330	53	0.004955	50	55-133	7	0-20	3

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 7470A Filt.
	Method: EPA 7470A
Project: CG Roxane / SB0746	Page 10 of 12

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-04-0513-10	**Sample**	**Aqueous**	**Mercury 04**	**04/11/16**	**04/11/16 20:22**	**160411SA4**
16-04-0513-10	**Matrix Spike**	**Aqueous**	**Mercury 04**	**04/11/16**	**04/11/16 20:24**	**160411SA4**
16-04-0513-10	**Matrix Spike Duplicate**	**Aqueous**	**Mercury 04**	**04/11/16**	**04/11/16 20:26**	**160411SA4**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.003665	37	0.003698	37	55-133	1	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

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

Date Received: 04/08/16
Work Order: 16-04-0486
Preparation: EPA 5030C
Method: EPA 8260B

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
FP-040716	**Sample**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 13:01**	**160409S003**
FP-040716	**Matrix Spike**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 13:28**	**160409S003**
FP-040716	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 13:56**	**160409S003**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	42.85	86	49.21	98	22-178	14	0-26	
Benzene	ND	50.00	51.95	104	50.32	101	70-130	3	0-20	
Bromobenzene	ND	50.00	56.92	114	55.61	111	70-130	2	0-20	
Bromochloromethane	ND	50.00	51.90	104	51.00	102	70-132	2	0-20	
Bromodichloromethane	ND	50.00	60.10	120	58.44	117	69-135	3	0-20	
Bromoform	ND	50.00	55.52	111	53.83	108	70-133	3	0-20	
Bromomethane	ND	50.00	53.93	108	54.06	108	11-167	0	0-32	
2-Butanone	ND	50.00	54.93	110	55.90	112	39-159	2	0-21	
n-Butylbenzene	ND	50.00	59.25	118	58.13	116	62-152	2	0-28	
sec-Butylbenzene	ND	50.00	59.65	119	58.44	117	70-143	2	0-24	
tert-Butylbenzene	ND	50.00	60.53	121	60.17	120	70-140	1	0-20	
Carbon Disulfide	ND	50.00	52.14	104	52.66	105	54-138	1	0-23	
Carbon Tetrachloride	ND	50.00	60.57	121	61.59	123	63-153	2	0-22	
Chlorobenzene	ND	50.00	53.38	107	51.85	104	70-130	3	0-20	
Chloroethane	ND	50.00	61.38	123	62.19	124	44-140	1	0-32	
Chloroform	ND	50.00	55.76	112	54.92	110	68-134	2	0-20	
Chloromethane	ND	50.00	59.02	118	60.18	120	20-158	2	0-40	
2-Chlorotoluene	ND	50.00	60.78	122	58.02	116	70-137	5	0-20	
4-Chlorotoluene	ND	50.00	56.75	113	55.60	111	70-130	2	0-20	
Dibromochloromethane	ND	50.00	58.49	117	55.10	110	70-133	6	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	56.96	114	56.29	113	67-133	1	0-20	
1,2-Dibromoethane	ND	50.00	51.47	103	50.07	100	70-130	3	0-20	
Dibromomethane	ND	50.00	52.67	105	50.90	102	70-130	3	0-20	
1,2-Dichlorobenzene	ND	50.00	53.36	107	52.69	105	70-130	1	0-20	
1,3-Dichlorobenzene	ND	50.00	54.34	109	52.83	106	70-130	3	0-20	
1,4-Dichlorobenzene	ND	50.00	53.00	106	51.90	104	70-130	2	0-20	
Dichlorodifluoromethane	ND	50.00	77.55	155	74.47	149	10-190	4	0-40	
1,1-Dichloroethane	ND	50.00	56.00	112	56.50	113	64-130	1	0-20	
1,2-Dichloroethane	ND	50.00	56.01	112	53.92	108	69-135	4	0-20	
1,1-Dichloroethene	ND	50.00	57.18	114	58.52	117	51-153	2	0-21	
c-1,2-Dichloroethene	ND	50.00	50.75	101	49.97	100	56-146	2	0-20	
t-1,2-Dichloroethene	ND	50.00	59.45	119	57.56	115	68-134	3	0-20	
1,2-Dichloropropane	ND	50.00	53.66	107	52.97	106	70-130	1	0-20	
1,3-Dichloropropane	ND	50.00	53.00	106	50.21	100	70-130	5	0-20	
2,2-Dichloropropane	ND	50.00	62.19	124	62.45	125	37-169	0	0-23	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 5030C
	Method: EPA 8260B
Project: CG Roxane / SB0746	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	54.09	108	54.35	109	66-132	0	0-20	
c-1,3-Dichloropropene	ND	50.00	55.81	112	53.10	106	67-139	5	0-20	
t-1,3-Dichloropropene	ND	50.00	58.98	118	56.35	113	58-136	5	0-20	
Ethylbenzene	ND	50.00	58.68	117	55.63	111	70-134	5	0-24	
2-Hexanone	ND	50.00	52.36	105	51.85	104	59-149	1	0-20	
Isopropylbenzene	ND	50.00	63.56	127	61.28	123	70-141	4	0-27	
p-Isopropyltoluene	ND	50.00	59.23	118	58.66	117	65-143	1	0-39	
Methylene Chloride	ND	50.00	57.11	114	57.31	115	69-130	0	0-21	
4-Methyl-2-Pentanone	ND	50.00	51.18	102	50.99	102	67-139	0	0-20	
Naphthalene	ND	50.00	54.43	109	54.51	109	61-139	0	0-20	
n-Propylbenzene	ND	50.00	62.52	125	59.63	119	70-140	5	0-24	
Styrene	ND	50.00	58.29	117	56.32	113	18-174	3	0-40	
1,1,1,2-Tetrachloroethane	ND	50.00	60.44	121	56.76	114	70-135	6	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.53	105	52.25	104	70-137	1	0-20	
Tetrachloroethene	ND	50.00	48.89	98	45.93	92	33-147	6	0-30	
Toluene	ND	50.00	54.57	109	52.87	106	70-130	3	0-20	
1,2,3-Trichlorobenzene	ND	50.00	55.53	111	54.75	110	64-142	1	0-22	
1,2,4-Trichlorobenzene	ND	50.00	58.65	117	57.51	115	60-144	2	0-24	
1,1,1-Trichloroethane	ND	50.00	61.32	123	60.23	120	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	65.79	132	63.60	127	21-190	3	0-40	
1,1,2-Trichloroethane	ND	50.00	49.36	99	47.53	95	70-130	4	0-20	
Trichloroethene	ND	50.00	53.97	108	52.58	105	42-156	3	0-20	
Trichlorofluoromethane	ND	50.00	73.56	147	71.39	143	54-162	3	0-30	
1,2,3-Trichloropropane	ND	50.00	55.75	111	53.45	107	67-130	4	0-20	
1,2,4-Trimethylbenzene	ND	50.00	58.81	118	57.49	115	70-133	2	0-20	
1,3,5-Trimethylbenzene	ND	50.00	63.30	127	60.20	120	70-139	5	0-20	
Vinyl Acetate	ND	50.00	58.91	118	59.90	120	10-190	2	0-40	
Vinyl Chloride	ND	50.00	64.70	129	66.60	133	59-137	3	0-20	
p/m-Xylene	ND	100.0	117.2	117	112.7	113	67-145	4	0-28	
o-Xylene	ND	50.00	61.62	123	59.02	118	70-142	4	0-31	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	58.19	116	58.53	117	69-130	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: CG Roxane / SB0746			Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-04-0374-1	**Sample**	**Aqueous**	**ICP/MS 03**	**04/11/16 00:00**	**04/12/16 14:34**	**160411SA2**
16-04-0374-1	**PDS**	**Aqueous**	**ICP/MS 03**	**04/11/16 00:00**	**04/12/16 14:24**	**160411SA2**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	0.001357	0.1000	0.1036	102	75-125	
Arsenic	0.003330	0.1000	0.1011	98	75-125	
Barium	0.05478	0.1000	0.1553	101	75-125	
Beryllium	ND	0.1000	0.08539	85	75-125	
Cadmium	ND	0.1000	0.09474	95	75-125	
Chromium	ND	0.1000	0.09755	98	75-125	
Cobalt	0.004668	0.1000	0.1027	98	75-125	
Copper	0.005941	0.1000	0.09918	93	75-125	
Lead	ND	0.1000	0.1082	108	75-125	
Molybdenum	0.001896	0.1000	0.1184	117	75-125	
Nickel	0.01440	0.1000	0.1086	94	75-125	
Selenium	ND	0.1000	0.09741	97	75-125	
Silver	ND	0.05000	0.04480	90	75-125	
Thallium	ND	0.1000	0.1064	106	75-125	
Vanadium	0.002863	0.1000	0.1113	108	75-125	
Zinc	0.07608	0.1000	0.1541	78	75-125	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - PDS

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 3005A Filt.
	Method: EPA 6020
Project: CG Roxane / SB0746	Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-04-0376-1	**Sample**	**Aqueous**	**ICP/MS 03**	**04/11/16 00:00**	**04/12/16 16:23**	**160411SA3**
16-04-0376-1	**PDS**	**Aqueous**	**ICP/MS 03**	**04/11/16 00:00**	**04/12/16 16:18**	**160411SA3**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Antimony	ND	0.1000	0.1046	105	75-125	
Arsenic	0.001318	0.1000	0.1010	100	75-125	
Barium	0.2805	0.1000	0.3818	101	75-125	
Beryllium	ND	0.1000	0.1021	102	75-125	
Cadmium	ND	0.1000	0.1021	102	75-125	
Chromium	0.001092	0.1000	0.1071	106	75-125	
Cobalt	ND	0.1000	0.1000	100	75-125	
Copper	0.005691	0.1000	0.1045	99	75-125	
Lead	ND	0.1000	0.1041	104	75-125	
Molybdenum	0.005139	0.1000	0.1142	109	75-125	
Nickel	0.008548	0.1000	0.1052	97	75-125	
Selenium	ND	0.1000	0.09228	92	75-125	
Silver	ND	0.05000	0.04840	97	75-125	
Thallium	ND	0.1000	0.1014	101	75-125	
Vanadium	0.006929	0.1000	0.1096	103	75-125	
Zinc	0.07602	0.1000	0.1668	91	75-125	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS/PDSD

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

Date Received: 04/08/16
Work Order: 16-04-0486
Preparation: EPA 7470A Filt.
Method: EPA 7470A

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
16-04-0513-10	**Sample**	**Aqueous**	**Mercury 04**	**04/11/16 00:00**	**04/11/16 20:22**	**160411SA4**
16-04-0513-10	**PDS**	**Aqueous**	**Mercury 04**	**04/11/16 00:00**	**04/14/16 15:05**	**160411SA4**
16-04-0513-10	**PDSD**	**Aqueous**	**Mercury 04**	**04/11/16 00:00**	**04/14/16 15:07**	**160411SA4**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.005700	57	0.005318	53	75-125	7	0-20	5

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2320B
Project: CG Roxane / SB0746			Page 1 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-04-0263-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**04/11/16 19:55**	**G0411ALKD1**
16-04-0263-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**04/11/16 19:55**	**G0411ALKD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	430.0	423.0	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2320B
Project: CG Roxane / SB0746	Page 2 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-04-0263-1	**Sample**	**Aqueous**	**PH1/BUR03**	**N/A**	**04/11/16 19:55**	**G0411HCOD1**
16-04-0263-1	**Sample Duplicate**	**Aqueous**	**PH1/BUR03**	**N/A**	**04/11/16 19:55**	**G0411HCOD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Bicarbonate (as CaCO3)	430.0	423.0	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2540 C
Project: CG Roxane / SB0746	Page 3 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-04-0388-1	**Sample**	**Aqueous**	**SC 2**	**04/12/16 00:00**	**04/12/16 16:00**	**G0412TDSD1**
16-04-0388-1	**Sample Duplicate**	**Aqueous**	**SC 2**	**04/12/16 00:00**	**04/12/16 16:00**	**G0412TDSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	640.0	615.0	4	0-20	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 H+ B
Project: CG Roxane / SB0746	Page 4 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-04-0494-3	**Sample**	**Aqueous**	**PH 1**	**N/A**	**04/08/16 21:57**	**G0408PHD1**
16-04-0494-3	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**04/08/16 21:57**	**G0408PHD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	7.320	7.340	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500 N Org B
Project: CG Roxane / SB0746	Page 5 of 5

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-04-0460-3	**Sample**	**Aqueous**	**BUR05**	**04/12/16 00:00**	**04/12/16 16:48**	**G0412TKND1**
16-04-0460-3	**Sample Duplicate**	**Aqueous**	**BUR05**	**04/12/16 00:00**	**04/12/16 16:48**	**G0412TKND1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	63.70	63.00	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	EPA 300.0
Project: CG Roxane / SB0746			Page 1 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-906-6601	**LCS**	**Aqueous**	**IC 10**	**N/A**	**04/08/16 10:12**	**160408L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chloride	50.00	51.22	102	90-110	
Sulfate	50.00	51.00	102	90-110	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 2320B
Project: CG Roxane / SB0746	Page 2 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-859-975	**LCS**	**Aqueous**	**PH1/BUR03**	**N/A**	**04/11/16 19:55**	**G0411ALKB1**
099-15-859-975	**LCSD**	**Aqueous**	**PH1/BUR03**	**N/A**	**04/11/16 19:55**	**G0411ALKB1**

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

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 2540 C
Project: CG Roxane / SB0746			Page 3 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-180-5038	**LCS**	**Aqueous**	**SC 2**	**04/12/16**	**04/12/16 16:00**	**G0412TDSL1**
099-12-180-5038	**LCSD**	**Aqueous**	**SC 2**	**04/12/16**	**04/12/16 16:00**	**G0412TDSL1**

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	90.00	90	80-120	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0746			Page 4 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-098-2743	**LCS**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 19:55**	**G0411TPL1**
099-05-098-2743	**LCSD**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 19:55**	**G0411TPL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	0.4000	0.3973	99	0.3722	93	80-120	7	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	N/A
		Method:	SM 4500 P B/E
Project: CG Roxane / SB0746			Page 5 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-276-192	**LCS**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 17:55**	**G0411PO4L1**
099-14-276-192	**LCSD**	**Aqueous**	**UV 7**	**04/11/16**	**04/11/16 17:55**	**G0411PO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Phosphate	1.220	1.216	100	1.139	93	80-120	7	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NH3 B/C
Project: CG Roxane / SB0746	Page 6 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-814-2337	**LCS**	**Aqueous**	**BUR05**	**04/12/16**	**04/12/16 17:45**	**G0412NH3L1**
099-12-814-2337	**LCSD**	**Aqueous**	**BUR05**	**04/12/16**	**04/12/16 17:45**	**G0412NH3L1**

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	4.760	95	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: SM 4500-NO3 E
Project: CG Roxane / SB0746	Page 7 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-282-404	**LCS**	**Aqueous**	**UV 7**	**04/12/16**	**04/12/16 21:37**	**G0412NO3L2**
099-14-282-404	**LCSD**	**Aqueous**	**UV 7**	**04/12/16**	**04/12/16 21:37**	**G0412NO3L2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	0.5000	0.5029	101	0.4847	97	80-120	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

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

Date Received:	04/08/16
Work Order:	16-04-0486
Preparation:	N/A
Method:	SM 5540C

Project: CG Roxane / SB0746

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-3048	**LCS**	**Aqueous**	**UV 8**	**04/08/16**	**04/08/16 15:09**	**G0408SURL1**
099-05-093-3048	**LCSD**	**Aqueous**	**UV 8**	**04/08/16**	**04/08/16 15:09**	**G0408SURL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9200	92	0.9300	93	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: N/A
	Method: EPA 200.7
Project: CG Roxane / SB0746	Page 9 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6528	**LCS**	**Aqueous**	**ICP 7300**	**04/09/16**	**04/13/16 16:43**	**160409LA3A**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Calcium	0.5000	0.5234	105	85-115	
Magnesium	0.5000	0.5178	104	85-115	
Sodium	5.000	5.331	107	85-115	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 3020A Total
	Method: EPA 6020
Project: CG Roxane / SB0746	Page 10 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5153	**LCS**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:17**	**160411LA2**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1044	104	80-120	73-127	
Arsenic	0.1000	0.1040	104	80-120	73-127	
Barium	0.1000	0.1033	103	80-120	73-127	
Beryllium	0.1000	0.1045	105	80-120	73-127	
Cadmium	0.1000	0.1032	103	80-120	73-127	
Chromium	0.1000	0.1133	113	80-120	73-127	
Cobalt	0.1000	0.1004	100	80-120	73-127	
Copper	0.1000	0.1036	104	80-120	73-127	
Lead	0.1000	0.1002	100	80-120	73-127	
Molybdenum	0.1000	0.1014	101	80-120	73-127	
Nickel	0.1000	0.1015	102	80-120	73-127	
Selenium	0.1000	0.1187	119	80-120	73-127	
Silver	0.05000	0.04837	97	80-120	73-127	
Thallium	0.1000	0.09799	98	80-120	73-127	
Vanadium	0.1000	0.1001	100	80-120	73-127	
Zinc	0.1000	0.1056	106	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

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020
Project: CG Roxane / SB0746			Page 11 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-693-1092	**LCS**	**Aqueous**	**ICP/MS 03**	**04/11/16**	**04/12/16 14:14**	**160411LA3F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	0.1000	0.1042	104	80-120	73-127	
Arsenic	0.1000	0.1031	103	80-120	73-127	
Barium	0.1000	0.1024	102	80-120	73-127	
Beryllium	0.1000	0.1069	107	80-120	73-127	
Cadmium	0.1000	0.1031	103	80-120	73-127	
Chromium	0.1000	0.1029	103	80-120	73-127	
Cobalt	0.1000	0.1005	101	80-120	73-127	
Copper	0.1000	0.1033	103	80-120	73-127	
Lead	0.1000	0.1006	101	80-120	73-127	
Molybdenum	0.1000	0.09947	99	80-120	73-127	
Nickel	0.1000	0.1015	102	80-120	73-127	
Selenium	0.1000	0.1110	111	80-120	73-127	
Silver	0.05000	0.04762	95	80-120	73-127	
Thallium	0.1000	0.09897	99	80-120	73-127	
Vanadium	0.1000	0.1016	102	80-120	73-127	
Zinc	0.1000	0.1046	105	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

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Total
		Method:	EPA 7470A
Project: CG Roxane / SB0746			Page 12 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7828	**LCS**	**Aqueous**	**Mercury 04**	**04/13/16**	**04/13/16 21:28**	**160413LA4**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.01016	102	80-120	

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RPD: Relative Percent Difference.   CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 7470A Filt.
		Method:	EPA 7470A
Project: CG Roxane / SB0746			Page 13 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-763-748	**LCS**	**Aqueous**	**Mercury 04**	**04/11/16**	**04/11/16 20:19**	**160411LA4F**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.01000	0.009576	96	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 04/08/16
924 Anacapa Street, Suite 4A	Work Order: 16-04-0486
Santa Barbara, CA 93101-2177	Preparation: EPA 3510C
	Method: EPA 8270C
Project: CG Roxane / SB0746	Page 14 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-02-008-57	**LCS**	**Aqueous**	**GC/MS SS**	**04/13/16**	**04/14/16 10:53**	**160413L06A**
099-02-008-57	**LCSD**	**Aqueous**	**GC/MS SS**	**04/13/16**	**04/14/16 11:14**	**160413L06A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	92.73	93	83.10	83	45-110	34-121	11	0-11	
Acenaphthylene	100.0	89.82	90	80.50	81	50-105	41-114	11	0-20	
Aniline	100.0	58.44	58	55.16	55	50-130	37-143	6	0-20	
Anthracene	100.0	95.96	96	84.32	84	55-110	46-119	13	0-20	
Azobenzene	100.0	89.26	89	80.58	81	50-130	37-143	10	0-20	
Benzidine	100.0	44.37	44	45.80	46	50-130	37-143	3	0-20	ME
Benzo (a) Anthracene	100.0	91.11	91	81.97	82	55-110	46-119	11	0-20	
Benzo (a) Pyrene	100.0	98.88	99	88.28	88	55-110	46-119	11	0-20	
Benzo (b) Fluoranthene	100.0	96.75	97	83.51	84	45-120	32-132	15	0-20	
Benzo (g,h,i) Perylene	100.0	97.93	98	88.36	88	40-125	26-139	10	0-20	
Benzo (k) Fluoranthene	100.0	96.24	96	87.07	87	45-125	32-138	10	0-20	
Benzoic Acid	100.0	36.50	37	37.45	37	50-130	37-143	3	0-20	ME
Benzyl Alcohol	100.0	63.69	64	59.63	60	30-110	17-123	7	0-20	
Bis(2-Chloroethoxy) Methane	100.0	81.10	81	73.75	74	45-105	35-115	10	0-20	
Bis(2-Chloroethyl) Ether	100.0	80.64	81	74.60	75	35-110	22-122	8	0-20	
Bis(2-Chloroisopropyl) Ether	100.0	69.43	69	64.38	64	25-130	8-148	8	0-20	
Bis(2-Ethylhexyl) Phthalate	100.0	72.12	72	63.83	64	40-125	26-139	12	0-20	
4-Bromophenyl-Phenyl Ether	100.0	84.96	85	77.26	77	50-115	39-126	9	0-20	
Butyl Benzyl Phthalate	100.0	75.45	75	66.85	67	45-115	33-127	12	0-20	
4-Chloro-3-Methylphenol	100.0	81.56	82	74.47	74	45-110	34-121	9	0-40	
4-Chloroaniline	100.0	71.50	72	65.78	66	15-110	0-126	8	0-20	
2-Chloronaphthalene	100.0	86.68	87	78.07	78	50-105	41-114	10	0-20	
2-Chlorophenol	100.0	82.49	82	74.57	75	35-105	23-117	10	0-18	
4-Chlorophenyl-Phenyl Ether	100.0	87.27	87	76.84	77	50-110	40-120	13	0-20	
Chrysene	100.0	90.31	90	80.72	81	55-110	46-119	11	0-20	
2,6-Dichlorophenol	100.0	85.85	86	77.57	78	42-120	29-133	10	0-21	
Di-n-Butyl Phthalate	100.0	91.59	92	81.02	81	55-115	45-125	12	0-20	
Di-n-Octyl Phthalate	100.0	69.55	70	61.16	61	35-135	18-152	13	0-20	
Dibenz (a,h) Anthracene	100.0	91.99	92	81.87	82	40-125	26-139	12	0-20	
Dibenzofuran	100.0	89.17	89	79.26	79	55-105	47-113	12	0-20	
1,2-Dichlorobenzene	100.0	73.60	74	66.65	67	35-100	24-111	10	0-20	
1,3-Dichlorobenzene	100.0	70.96	71	64.91	65	30-100	18-112	9	0-20	
1,4-Dichlorobenzene	100.0	71.46	71	65.35	65	30-100	18-112	9	0-26	
3,3'-Dichlorobenzidine	100.0	73.44	73	65.47	65	20-110	5-125	11	0-20	
2,4-Dichlorophenol	100.0	85.96	86	77.95	78	50-105	41-114	10	0-20	
Diethyl Phthalate	100.0	86.48	86	76.42	76	40-120	27-133	12	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0746			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	88.52	89	79.57	80	25-125	8-142	11	0-20	
2,4-Dimethylphenol	100.0	85.19	85	77.38	77	30-110	17-123	10	0-20	
4,6-Dinitro-2-Methylphenol	100.0	85.36	85	75.41	75	40-130	25-145	12	0-20	
2,4-Dinitrophenol	100.0	78.92	79	72.37	72	15-140	0-161	9	0-20	
2,4-Dinitrotoluene	100.0	93.93	94	83.04	83	50-120	38-132	12	0-36	
2,6-Dinitrotoluene	100.0	92.59	93	83.28	83	50-115	39-126	11	0-20	
Fluoranthene	100.0	100.5	101	86.09	86	55-115	45-125	15	0-20	
Fluorene	100.0	93.15	93	81.84	82	50-110	40-120	13	0-20	
Hexachloro-1,3-Butadiene	100.0	79.37	79	71.95	72	25-105	12-118	10	0-20	
Hexachlorobenzene	100.0	95.99	96	84.36	84	50-110	40-120	13	0-20	
Hexachlorocyclopentadiene	100.0	87.75	88	79.31	79	50-130	37-143	10	0-20	
Hexachloroethane	100.0	67.68	68	62.88	63	30-95	19-106	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	92.50	92	82.52	83	45-125	32-138	11	0-20	
Isophorone	100.0	82.97	83	76.52	77	50-110	40-120	8	0-20	
2-Methylnaphthalene	100.0	86.04	86	77.41	77	45-105	35-115	11	0-20	
1-Methylnaphthalene	100.0	75.46	75	67.80	68	45-105	35-115	11	0-20	
2-Methylphenol	100.0	72.74	73	68.71	69	40-110	28-122	6	0-20	
3/4-Methylphenol	200.0	140.5	70	132.5	66	30-110	17-123	6	0-20	
N-Nitroso-di-n-propylamine	100.0	82.29	82	76.77	77	35-130	19-146	7	0-13	
N-Nitrosodimethylamine	100.0	69.26	69	65.27	65	25-110	11-124	6	0-20	
N-Nitrosodiphenylamine	100.0	109.7	110	97.46	97	50-110	40-120	12	0-20	
Naphthalene	100.0	83.22	83	75.48	75	40-100	30-110	10	0-20	
4-Nitroaniline	100.0	91.28	91	79.15	79	35-120	21-134	14	0-20	
3-Nitroaniline	100.0	81.47	81	72.03	72	20-125	2-142	12	0-20	
2-Nitroaniline	100.0	101.7	102	89.21	89	50-115	39-126	13	0-20	
Nitrobenzene	100.0	87.82	88	80.21	80	45-110	34-121	9	0-20	
4-Nitrophenol	100.0	49.27	49	44.92	45	20-150	0-172	9	0-40	
2-Nitrophenol	100.0	84.34	84	77.89	78	40-115	28-128	8	0-20	
Pentachlorophenol	100.0	81.40	81	72.26	72	40-115	28-128	12	0-40	
Phenanthrene	100.0	96.78	97	86.38	86	50-115	39-126	11	0-20	
Phenol	100.0	37.74	38	36.64	37	10-115	0-132	3	0-23	
Pyrene	100.0	83.91	84	78.11	78	50-130	37-143	7	0-20	
Pyridine	100.0	67.67	68	65.65	66	52-115	42-126	3	0-20	
1,2,4-Trichlorobenzene	100.0	82.33	82	75.05	75	35-105	23-117	9	0-21	
2,4,6-Trichlorophenol	100.0	84.04	84	76.44	76	50-115	39-126	9	0-20	
2,4,5-Trichlorophenol	100.0	89.06	89	77.20	77	50-110	40-120	14	0-20	

Total number of LCS compounds: 72
Total number of ME compounds: 2

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 3510C
		Method:	EPA 8270C
Project: CG Roxane / SB0746			Page 16 of 18

Total number of ME compounds allowed: 4

LCS ME CL validation result: Pass

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Quality Control - LCS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0746			Page 17 of 18

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-2727	**LCS**	**Aqueous**	**GC/MS V V**	**04/09/16**	**04/09/16 10:42**	**160409L007**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	44.50	89	12-150	0-173	
Benzene	50.00	50.62	101	80-120	73-127	
Bromobenzene	50.00	52.80	106	80-120	73-127	
Bromochloromethane	50.00	50.89	102	80-122	73-129	
Bromodichloromethane	50.00	57.72	115	80-123	73-130	
Bromoform	50.00	57.63	115	74-134	64-144	
Bromomethane	50.00	45.12	90	22-160	0-183	
2-Butanone	50.00	48.79	98	44-164	24-184	
n-Butylbenzene	50.00	56.35	113	80-132	71-141	
sec-Butylbenzene	50.00	52.53	105	80-129	72-137	
tert-Butylbenzene	50.00	57.36	115	80-130	72-138	
Carbon Disulfide	50.00	47.78	96	60-126	49-137	
Carbon Tetrachloride	50.00	55.82	112	64-148	50-162	
Chlorobenzene	50.00	49.23	98	80-120	73-127	
Chloroethane	50.00	53.90	108	63-123	53-133	
Chloroform	50.00	51.42	103	79-121	72-128	
Chloromethane	50.00	55.50	111	43-133	28-148	
2-Chlorotoluene	50.00	54.44	109	80-130	72-138	
4-Chlorotoluene	50.00	54.22	108	80-121	73-128	
Dibromochloromethane	50.00	54.91	110	80-125	72-132	
1,2-Dibromo-3-Chloropropane	50.00	58.90	118	68-128	58-138	
1,2-Dibromoethane	50.00	48.80	98	80-120	73-127	
Dibromomethane	50.00	53.03	106	80-121	73-128	
1,2-Dichlorobenzene	50.00	53.72	107	80-120	73-127	
1,3-Dichlorobenzene	50.00	50.16	100	80-121	73-128	
1,4-Dichlorobenzene	50.00	50.99	102	80-120	73-127	
Dichlorodifluoromethane	50.00	62.79	126	25-187	0-214	
1,1-Dichloroethane	50.00	50.96	102	75-120	68-128	
1,2-Dichloroethane	50.00	58.13	116	80-123	73-130	
1,1-Dichloroethene	50.00	53.73	107	74-122	66-130	
c-1,2-Dichloroethene	50.00	45.73	91	75-123	67-131	
t-1,2-Dichloroethene	50.00	49.38	99	70-124	61-133	
1,2-Dichloropropane	50.00	53.84	108	80-120	73-127	
1,3-Dichloropropane	50.00	52.84	106	80-120	73-127	
2,2-Dichloropropane	50.00	59.11	118	49-151	32-168	
1,1-Dichloropropene	50.00	46.88	94	76-120	69-127	
c-1,3-Dichloropropene	50.00	56.37	113	80-124	73-131	
t-1,3-Dichloropropene	50.00	57.70	115	68-128	58-138	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Geosyntec Consultants		Date Received:	04/08/16
924 Anacapa Street, Suite 4A		Work Order:	16-04-0486
Santa Barbara, CA 93101-2177		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: CG Roxane / SB0746			Page 18 of 18

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Ethylbenzene	50.00	51.17	102	80-120	73-127	
2-Hexanone	50.00	54.21	108	57-147	42-162	
Isopropylbenzene	50.00	56.11	112	80-127	72-135	
p-Isopropyltoluene	50.00	58.44	117	80-125	72-132	
Methylene Chloride	50.00	48.26	97	74-122	66-130	
4-Methyl-2-Pentanone	50.00	50.97	102	71-125	62-134	
Naphthalene	50.00	54.18	108	54-144	39-159	
n-Propylbenzene	50.00	55.67	111	80-127	72-135	
Styrene	50.00	53.38	107	80-120	73-127	
1,1,1,2-Tetrachloroethane	50.00	56.08	112	80-125	72-132	
1,1,2,2-Tetrachloroethane	50.00	49.88	100	78-126	70-134	
Tetrachloroethene	50.00	49.70	99	57-141	43-155	
Toluene	50.00	47.42	95	80-120	73-127	
1,2,3-Trichlorobenzene	50.00	53.79	108	58-154	42-170	
1,2,4-Trichlorobenzene	50.00	55.21	110	57-153	41-169	
1,1,1-Trichloroethane	50.00	56.30	113	76-124	68-132	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	52.86	106	58-148	43-163	
1,1,2-Trichloroethane	50.00	46.40	93	80-120	73-127	
Trichloroethene	50.00	49.77	100	80-120	73-127	
Trichlorofluoromethane	50.00	62.68	125	64-136	52-148	
1,2,3-Trichloropropane	50.00	54.21	108	74-122	66-130	
1,2,4-Trimethylbenzene	50.00	57.33	115	80-120	73-127	
1,3,5-Trimethylbenzene	50.00	58.97	118	80-126	72-134	
Vinyl Acetate	50.00	57.77	116	34-172	11-195	
Vinyl Chloride	50.00	60.87	122	67-127	57-137	
p/m-Xylene	100.0	105.4	105	80-127	72-135	
o-Xylene	50.00	56.74	113	80-127	72-135	
Methyl-t-Butyl Ether (MTBE)	50.00	52.34	105	71-120	63-128	

Total number of LCS compounds: 66
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 16-04-0486 | Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 200.7	N/A	935	ICP 7300	1
EPA 300.0	N/A	1065	IC 10	1
EPA 6020	EPA 3005A Filt.	598	ICP/MS 03	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 7470A	EPA 7470A Filt.	915	Mercury 04	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8260B	EPA 5030C	1073	GC/MS V V	2
EPA 8270C	EPA 3510C	923	GC/MS SS	1
SM 2320B	N/A	650	PH1/BUR03	1
SM 2540 C	N/A	689	SC 2	1
SM 4500 H+ B	N/A	650	PH 1	1
SM 4500 N Org B	N/A	685	BUR05	1
SM 4500 P B/E	N/A	650	UV 7	1
SM 4500-NH3 B/C	N/A	685	BUR05	1
SM 4500-NO3 E	N/A	650	UV 7	1
SM 5540C	N/A	1067	UV 8	1
Total Nitrogen by Calc	N/A	92	N/A	1

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841
Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

Work Order: 16-04-0486 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.

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **16-04-0486**

DATE: 04/07/16
PAGE: 1 OF 1

LABORATORY CLIENT:	Geosyntec Consultants
ADDRESS:	924 Anacapa St. Suite 4A
CITY:	Santa Barbara
STATE:	CA
ZIP:	93101
TEL:	805-897-3800
E-MAIL:	Rsmith@geosyntec.com
CLIENT PROJECT NAME / NUMBER:	CG Roxane
P.O. NO.:	SB0746
PROJECT CONTACT:	Ryan Smith
SAMPLER(S): (PRINT)	George Castaneda

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
__1__ Cooler(s) with this COC shipped via FedEx

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Metals, Dissolved (Field Filtered)	Metals, Total (lab filtered)	VOCs (8260B)	Surfactants (MBAS)	Anions	Alkalinity	Total Dissolved Solids (TDS)	Phosphorus, Total	Phosphate, Total	Nitrogen, Total Kjeldahl (TKN)	Nitrogen, Ammonia	Nitrogen, NO3+NO2 (TON)	SVOCs (8270)
	FP	4/7/2016	12:00	W	17	6	11		X	X	X	X	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Manuel L			
Geo / Castaneda Jr.		04/07/16	1:57 pm
	[signature]	4/8/16	1030

06/02/14 Revision

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WO NO. / LAB USE ONLY: 0486

CHAIN-OF-CUSTODY RECORD

DATE: 4/7/16
PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec consultant
ADDRESS: 924 Anacapa St suite 4A
CITY: Santa Barbara STATE: CA ZIP: 93101
TEL: 805897 3800 E-MAIL: Bsmith@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

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NO.:
P.O. NO.:
PROJECT CONTACT: Ryan Smith
LAB CONTACT OR QUOTE NO.: Nowak
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT)

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	TPH ☐ C6-C36 ☐ C6-C44	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	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
	FP	4716	1200														X					

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Manuel Z		4/4/16	1310
	[signature]	4/8/16	1030

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0486

SLA1

FedEx Express Package US Airbill

FedEx Tracking Number 8082 2363 4060

1 From
Date 04/07/16 [redacted]
Sender's Name George Castaneda Phone 760 764-2
Company C S ROXANE CO
Address 1210 S HWY 395
City OLANCHA State CA ZIP 93549

2 Your Internal Billing Reference

3 To
Recipient's Name Nowak Phone 714 895-5494
Company Pelsonie
Address 7440 Lincoln Wy
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room
Address
Use this line for the HOLD location address or for continuation of your shipping address.
City Garden Grove State CA ZIP 92841-1427

HOLD Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0119230482

8082 2363 4060

FedEx
TRK# 0215 8082 2363 4060
FRI - 08 APR 10:30A
PRIORITY OVERNIGHT

92 APVA
92841 CA-US
SNA

FID 232795 07APR16 IYKA 539C1/1042/481B

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 40 lbs. | [redacted] | Credit Card Auth.

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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WORK ORDER NUMBER: 16-04- 0486

SAMPLE RECEIPT CHECKLIST

COOLER 1 **OF** 1

CLIENT: Geosyntec

DATE: 04 / 08 **/ 2016**

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

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.1 °C (w/ CF): 2.1 °C; ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: ________)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 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: 8R

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:** 160321A **)**

Aqueous: ☐ VOA 5 ☑ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☑ 125PB ☐ 125PBznna ☐ 250AGB ☐ 250CGB 3 ☑ 250CGBs ☑ 250PB ☑ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☑ 500PB ☑ 1AGB ☐ 1AGBna₂ 3 ☑ 1AGBs ☑ 1PB ☐ 1PBna 2 ☑ 250PBnu ☐ ________ ☐ ________ ☐ ________

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ ________

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ ________ **Other Matrix** (____________): ☐ ________ ☐ ________

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na₂** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 8R

Reviewed by: 7D

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WORK ORDER NUMBER: 16-04- 0486

SAMPLE ANOMALY REPORT

DATE: 04 / 08 / 2016

SAMPLES, CONTAINERS, AND LABELS:	Comments
☐ Sample(s) NOT RECEIVED but listed on COC	
☑ Sample(s) received but NOT LISTED on COC	
☐ Holding time expired (list client or ECI sample ID and analysis)	
☐ Insufficient sample amount for requested analysis (list analysis)	
☐ Improper container(s) used (list analysis)	
☐ Improper preservative used (list analysis)	
☐ No preservative noted on COC or label (list analysis and notify lab)	
☑ Sample container(s) not labeled	(-1) Received 5 vials not labeled
☐ Client sample label(s) illegible (list container type and analysis)	individual, labeled on bag
☑ Client sample label(s) do not match COC (comment)	(-1) Received 19 Containers
☐ Project information	instead of 17.
☐ Client sample ID	
☐ Sampling date and/or time	(-2) Received 2 Trip Blank
☑ Number of container(s)	Vials/HCl.
☐ 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: Sor

Reviewed by: 718

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

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Stephen Nowak

From: Ryan Smith <RSmith@Geosyntec.com>
Sent: Friday, April 08, 2016 5:17 PM
To: Stephen Nowak
Subject: RE: CG Roxane

Yes correct.

Ryan Smith, P.G., C.Hg.
Geosyntec Consultants
Office: 805-897-3800
Direct: 805-979-9140
Cell: 805-535-5491

-------- Original message --------
From: Stephen Nowak <StephenNowak@eurofinsUS.com>
Date: 04/08/2016 5:15 PM (GMT-08:00)
To: Ryan Smith <RSmith@Geosyntec.com>
Subject: RE: CG Roxane

Should be FP-040716, correct?

Stephen Nowak

Project Manager

eurofins | Calscience

Eurofins Calscience, Inc.

7440 Lincoln Way

GARDEN GROVE, CA 92841

USA

Phone: +1 714 895 5494

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Email: StephenNowak@EurofinsUS.com

Website: www.calscience.com

From: Ryan Smith [mailto:RSmith@Geosyntec.com]
Sent: Friday, April 08, 2016 4:11 PM
To: Stephen Nowak
Subject: RE: CG Roxane

Also, this sample should have an I'd of FP-040816.

Ryan Smith, P.G., C.Hg.

Geosyntec Consultants

Office: 805-897-3800

Direct: 805-979-9140

Cell: 805-535-5491

-------- Original message --------
From: Stephen Nowak <StephenNowak@eurofinsUS.com>
Date: 04/08/2016 2:48 PM (GMT-08:00)
To: Ryan Smith <RSmith@Geosyntec.com>
Subject: RE: CG Roxane

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Thanks-

Another question.
The metals- was one bottle field filtered?
I ask because it's not documented on any bottle.
We have 2 bottles preserved with ultra HNO3 and no documentation as if any were field filtered.

Stephen Nowak
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

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-----Original Message-----
From: Ryan Smith [mailto:RSmith@Geosyntec.com]
Sent: Friday, April 08, 2016 2:27 PM
To: Stephen Nowak
Subject: RE: CG Roxane

Yes please analyze the trip blank for VOCs.   Please assign an ID of QCTB-01-040716

Ryan Smith, P.G., C.Hg
Senior Geologist

-----Original Message-----
From: Stephen Nowak [mailto:StephenNowak@eurofinsUS.com]
Sent: Friday, April 08, 2016 2:07 PM
To: Ryan Smith
Subject: CG Roxane

Ryan-
See attached COC.

We received a trip blank- not listed on the COC. Do you want it analyzed?

Stephen Nowak
Project Manager

Eurofins Calscience, Inc.
7440 Lincoln Way
GARDEN GROVE, CA 92841
USA
Phone: +1 714 895 5494

Email: StephenNowak@EurofinsUS.com
Website: www.calscience.com

-----Original Message-----
From: noreply@eurofinsUS.com [mailto:noreply@eurofinsUS.com]
Sent: Friday, April 08, 2016 1:50 PM
To: Stephen Nowak; Noel Cruise
Subject: ***COC***

It is just information. Please don't reply this e-mail.

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Date of Report: 04/11/2016

Ryan Smith

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

Client Project:	CG Roxane
BCL Project:	Bacteriological
BCL Work Order:	1605065
Invoice ID:	B227542

Enclosed are the results of analyses for samples received by the laboratory on 2/19/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Geosyntec Consultants		**Reported:**	04/11/2016 9:55
924 Anacapa Street Suite 4A		Project:	Bacteriological
Santa Barbara, CA 93101		Project Number:	CG Roxane
		Project Manager:	Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1605065-01	**COC Number:**	---	**Receive Date:**	02/19/2016 10:35
	Project Number:	---	**Sampling Date:**	02/18/2016 14:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	AP-021816	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Wastewater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: Routine	
			Residual Chlorine, ppm:	
			Lab Temperature, C: 0.4	
1605065-02	**COC Number:**	---	**Receive Date:**	02/19/2016 10:35
	Project Number:	---	**Sampling Date:**	02/18/2016 14:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	FP-021816	**Lab Matrix:**	Water
	Sampled By:	Kenjo Agustsson	**Sample Type:**	Wastewater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site: Routine	
			Residual Chlorine, ppm:	
			Lab Temperature, C:	

Geosyntec Consultants		**Reported:**	04/11/2016 9:55
924 Anacapa Street Suite 4A		Project:	Bacteriological
Santa Barbara, CA 93101		Project Number:	CG Roxane
		Project Manager:	Ryan Smith

1605065-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	AP-021816	**Sample Site:**	Routine
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	02/19/2016 10:35	**Temperature, C:**	0.4
Sampling Date:	02/18/2016 14:00		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	15	Positive Tubes	SM-9221B	FBV	1	02/19/2016 12:00	02/21/2016	
Total Coliform, Confirmed Test	15	Positive Tubes	SM-9221B	FBV	1	02/19/2016 12:00	02/21/2016	
Total Coliform, Density	>1600	MPN/100ml	SM-9221B	FBV	1	02/19/2016 12:00	02/21/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	02/19/2016 12:00	02/21/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	02/19/2016 12:00	02/21/2016	

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

Reported: 04/11/2016 9:55
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Ryan Smith

1605065-02

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	FP-021816	**Sample Site:**	Routine
Sampled By:	Kenjo Agustsson	**Residual Chlorine, ppm:**	
Receive Date:	02/19/2016 10:35	**Temperature, C:**	
Sampling Date:	02/18/2016 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	15	Positive Tubes	SM-9221B	FBV	1	02/19/2016 12:00	02/21/2016	
Total Coliform, Confirmed Test	15	Positive Tubes	SM-9221B	FBV	1	02/19/2016 12:00	02/21/2016	
Total Coliform, Density	>1600	MPN/100ml	SM-9221B	FBV	1	02/19/2016 12:00	02/21/2016	
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	FBV	1	02/19/2016 12:00	02/21/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	FBV	1	02/19/2016 12:00	02/21/2016	

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

Reported: 04/11/2016 9:55
Project: Bacteriological
Project Number: CG Roxane
Project Manager: Ryan Smith

Notes And Definitions

MPN	Most Probable Number

Date of Report: 04/13/2016

Ryan Smith

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

Client Project:	[none]
BCL Project:	Bacteriological
BCL Work Order:	1610107
Invoice ID:	B232347

Enclosed are the results of analyses for samples received by the laboratory on 4/8/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

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Geosyntec Consultants		**Reported:**	04/13/2016 13:25
924 Anacapa Street Suite 4A		Project:	Bacteriological
Santa Barbara, CA 93101		Project Number:	[none]
		Project Manager:	Ryan Smith

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1610107-01	**COC Number:**	---	**Receive Date:**	04/08/2016 09:55
	Project Number:	---	**Sampling Date:**	04/07/2016 12:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	FP	**Lab Matrix:**	Water
	Sampled By:	George Castaneda	**Sample Type:**	Wastewater
			District ID:	
			System Number:	
			Station Number:	
			Sample Site:	Routine
			Residual Chlorine, ppm:	
			Lab Temperature, C:	13.6

Geosyntec Consultants		**Reported:**	04/13/2016 13:25
924 Anacapa Street Suite 4A		Project:	Bacteriological
Santa Barbara, CA 93101		Project Number:	[none]
		Project Manager:	Ryan Smith

1610107-01

Water Analysis (Bacteriological)

COC Number:	---	**District ID:**	
Project Number:	---	**System Number:**	
Sampling Location:	---	**Station Number:**	
Sampling Point:	FP	**Sample Site:**	Routine
Sampled By:	George Castaneda	**Residual Chlorine, ppm:**	
Receive Date:	04/08/2016 09:55	**Temperature, C:**	13.6
Sampling Date:	04/07/2016 12:00		
Sample Depth:	---		
Sample Matrix:	Water		

Multiple Tube Fermentation (5,5,5)

Constituent	Result	Units	Method	Analyst	Initial Dilution	Date Started	Date Completed	Lab Quals
Total Coliform, Presumptive Test	15	Positive Tubes	SM-9221B	CDA	1	04/08/2016 11:37	04/10/2016	
Total Coliform, Confirmed Test	15	Positive Tubes	SM-9221B	CDA	1	04/08/2016 11:37	04/10/2016	
Total Coliform, Density	>1600	MPN/100ml	SM-9221B	CDA	1	04/08/2016 11:37	04/10/2016	A26,S05
Fecal Coliform, Confirmed Test	0	Positive Tubes	SM-9221E	CDA	1	04/08/2016 11:37	04/10/2016	
Fecal Coliform, Density	<1.8	MPN/100ml	SM-9221E	CDA	1	04/08/2016 11:37	04/10/2016	A26,S05

Geosyntec Consultants		**Reported:**	04/13/2016 13:25
924 Anacapa Street Suite 4A		Project:	Bacteriological
Santa Barbara, CA 93101		Project Number:	[none]
		Project Manager:	Ryan Smith

Notes And Definitions

MPN	Most Probable Number
A26	Sample received past holding time.
S05	The sample holding time was exceeded.